# THIRD NATIONAL REPORT
# (SUBMITTED BY SWEDEN)

## CONTENTS

# A. REPORTING PARTY

| | |
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| Date of submission | |

## Information on the preparation of the report

**Box I.**

| Please provide information on the preparation of this report, including information on stakeholders involved and material used as a basis for the report. |
| --- |
| The Swedish Biodiversity Centre was contracted to compile basic information and data for this questionnaire. In this process more than 200 governmental agencies, academic institutions, non-governmental organizations, companies and other stakeholders were invited to contribute information. Unfortunately, only 30 organizations responded, predominantely key government agencies.<br>The draft National Report was then reviewed by the Swedish Environmental Protection Agency.<br>The final National Report was completed by the Ministryfor Sustainable Develoment, following inter-ministerial consulatations, and approved by the government of Sweden. |

# B. PRIORITY SETTING, TARGETS AND OBSTACLES

**Box II.**

| Please provide an overview of the status and trends of various components of biological diversity in your country based on the information and data available. |
|---|
| The overall goal of Swedish environmental policy is to hand over to the next generation a society in which the major environmental problems currently facing the country have been solved. In 1999, the Swedish Parliament adopted 15 national environmental quality objectives, to be attained by the year 2020 (2050 in the case of the objective 'Reduced Climate Impact'). The Environmental quality objectives create a transparent and stable framework for environmental programs and initiatives, and serve to guide such efforts at various levels in society.<br><br>The government recently (May 2005) took a decision on a bill to Parliament (bill no. 2004/05:150): Swedish Environmental Quality Objectives – a Common Task. This bill contains a proposal on a new 16th environmental quality objective: A Rich Biodiversity. Under this objective, government proposes three interim targets: 1) Halt the loss of biodiversity until 2010, 2) Improved conservation status for threatened species, 3) Sustainable use of biological diversity and biological resources.<br><br>The Parliament will decide on this bill in autumn 2005. If this new environmental quality objective, and the three interim targets, will be accepted by Parliament the whole structure of the environmental quality objectives and interim targets will be complemented accordingly. As the Parliament has not yet adopted this proposal, the report does not fully reflect the proposal. The proposed new objective A Rich Biodiversity and its targets are of course relevant to several of the questions in this report. In some cases a reference to the proposal is given in the answers to the questions.<br><br>In Sweden the basic principle for conservation of biological diversity is a combination of protected areas and adjustments in land use. The policy is to “cover the whole landscape” and not only address protected areas. Still, for a large number of species, this is not enough, a fact made evident by the length of the national red list. Specific action plans for endangered species have been implemented for a certain number of species during the last decades. Now similar action plans are produced and put into action for 360 species.<br><br>The national red list includes approximately 20 % of all species occurring in the country. Some of these species are responding in a positive way to nature conservation measures. Other species are experiencing an ongoing loss, and are thus highly unlikely to be transferred off the national red list in the foreseeable future.<br><br>Sweden has a history of land use where all land has been utilized more or less extensively.. This implies forestry, agriculture, fishery etc. For many species, there are only very small and fragmentary areas of suitable habitat left. The consequences are now evident in the form of common species becoming uncommon, and uncommon species becoming endangered. The process toward regional extinction is however long, and one of the main problems for nature conservation in Sweden is the large amount of populations still present, but bereft of the occurrence and quality of their habitat to such an extent that their future looks dire. This "extinction debt" is a real challenge for all instances working with land and sea use and the compensation of its effects.<br><br>The marine environment of today is a result of natural processes and overfishing, nutrient leakage and emission of hazardous substances. Large-scale habitat changes have thus taken place, with corresponding ecosystem changes. Formerly common species have disappeared, new species are coming in. A major problem is the low level of knowledge about the occurrence of habitats and species, as compared to the situation on land. This is beginning to be amended through large inventory projects.<br><br>The total area of natural grasslands managed by grazing has stabilized, with the help of payment systems (to farmers). Positive trends can be seen, in the form of restoration etc. At the same time many species are still suffering negative population trends, mainly because of loss of habitat quality. A future loss can be expected, due to poor regeneration of old deciduous trees. A lot of rare and specialized |

species will need specific actions taken, if they are not to go regionally extinct.

The annual logging of volume of timber is bigger than ever, due to large forest industry investments, demanding ever more natural resources. A lesser part of the Swedish forested land has not yet been logged, only used in more selective ways. Many species are known to occur only in these forests. If these will be logged, we will experience a substantial loss of biodiversity. At present the most serious threat to forest biodiversity is the ongoing logging of the very few remaining old-growth natural forest stands outside of protected areas. Many endangered species have their last few occurrences in these stands. Land use has been adjusted according to the dual goal stated in the Swedish forestry act: sustainable production and conservation. This has led to positive trends for some species. But there is a continual tendency towards more monotonous forest stands with very low biodiversity.

Dry areas, especially on sandy soil, have a rich biodiversity, in most cases dependent on a sunny microclimate. This, however, is in turn dependent on grazing or other land use creating the same state of habitat. As this is a land use of the past, many of these areas are now turning into forest land, a major reason for decline in many species. Some of them have only a very restricted area of suitable habitat left.

In the alpine region of Sweden the effects of climate change are the most evident. Forests are "climbing" up the mountain slopes, the heaths above as well, stabilizing areas with rocks and gravel. This is a threat to species specialized in living inhigher altitudes.

The genetic level is the least well known aspect of biological diversity in Sweden. There are few monitoring schemes that follow trends in genetic variation. Undoubtedly, large amounts of variation within and between populations and domestic breeds have already vanished, and the threats continue to erode the remaining variation, given the fragmented landscape of many habitats. One of the most well studied wild animal populations, the wolf, was recently shown to suffer from severe inbreeding depression.

## Priority Setting

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

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

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

## Challenges and Obstacles to Implementation

**2.** Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the provisions of the Articles of the Convention (5, 6,7, 8, 8h, 8j, 9, 10, 11,12, 13, 14, 15,16, 17, 18, 19 and 20)

| | |
|---|---|
| 3 = High Challenge | 1 = Low Challenge |
| 2 = Medium Challenge | 0 = Challenge has been successfully overcome |
| N/A = Not applicable | |

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

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| f) Lack of transfer of technology and expertise | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| g) Loss of traditional knowledge | N/A | 1 | 1 | 2 | N/A | 2 | 1 | 2 | 2 | 1 | 1 | 1 | N/A | N/A | 1 | N/A | N/A | N/A |
| h) Lack of adequate scientific research capacities to support all the objectives | N/A | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | N/A | 2 | N/A |
| i) Lack of accessible knowledge and information | N/A | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | N/A | 0 | 2 | 1 | 1 | N/A | N/A | 2 | N/A |
| j) Lack of public education and awareness at all levels | 1 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 2 | 2 |
| k) Existing scientific and traditional knowledge not fully utilized | N/A | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 1 |
| l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented | N/A | 1 | 1 | 2 | 3 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | N/A | N/A | N/A | N/A | N/A |
| m) Lack of financial, human, technical resources | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 0 | 1 |
| n) Lack of economic incentive measures | N/A | N/A | N/A | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 1 | 1 | 1 | 1 | N/A | 1 | 1 | 1 |
| o) Lack of benefit-sharing | N/A | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | N/A |
| p) Lack of synergies at national and international levels | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 3 | 2 | 1 | 1 | 1 | 0 | 2 |
| q) Lack of horizontal cooperation among stakeholders | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

| | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| r) Lack of effective partnerships | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 3 | 2 | 2 | 2 | 1 | 2 |
| s) Lack of engagement of scientific community | 1 | 2 | 2 | 2 | 1 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 |
| t) Lack of appropriate policies and laws | 1 | 0 | 1 | 0 | 2 | 2 | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 1 |
| u) Poverty | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| v) Population pressure | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |
| w) Unsustainable consumption and production patterns | 0 | 3 | 0 | 1 | 2 | 0 | 0 | 2 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 |
| x) Lack of capacities for local communities | N/A | 1 | 2 | 1 | 1 | 2 | 1 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | N/A | 1 |
| y) Lack of knowledge and practice of ecosystem-based approaches to management | 1 | 1 | N/A | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 |
| z) Weak law enforcement capacity | N/A | N/A | N/A | 0 | 1 | 0 | 0 | 1 | 1 | 1 | 0 | 2 | 1 | 0 | N/A | N/A | 1 | 0 |
| aa) Natural disasters and environmental change | 1 | 2 | 1 | 2 | 1 | N/A | N/A | 1 | N/A | 2 | N/A | N/A | N/A | N/A | N/A | N/A | 1 | 1 |
| bb) Others (please specify) | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A | N/A |

## 2010 Target

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

**Box III.**

| **Goal 1** | **Promote the conservation of the biological diversity of ecosystems, habitats and biomes.** |
|---|---|

| Target 1.1 | At least ten percent of each of the world's ecological regions effectively conserved |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

The Swedish parliament has approved a set of 15 environmental quality objectives to be achieved within one generation, usually taken to correspond to the year 2020. The objectives have been made explicit through a total of 71 interim targets, using clearly defined indicators and time frames ranging from 2005 to 2020. Many of them employ the 2010 time frame used in the CBD targets. The implementation of targets is supported by three action strategies.

The 15 targets are not expressed as the conservation of 10% of each ecological region, but if achieved, they will more than adequately correspond to such a result:

1. Reduced Climate Impact
2. Clean Air
3. Natural Acidification Only
4. A Non-Toxic Environment
5. A Protective Ozone Layer
6. A Safe Radiation Environment
7. Zero Eutrophication
8. Flourishing Lakes and Streams
9. Good-Quality Groundwater
10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos
11. Thriving Wetlands
12. Sustainable Forests
13. A Varied Agricultural Landscape
14. A Magnificent Mountain Landscape
15. A Good Built Environment

Se also box II regarding the proposal of a 16th environmental quality objective: A Rich Biodiversity.

The national objectives and targets have also been adapted and applied as appropriate by regional authorities (the county administrations) and local governments (municipalities). E.g. in the municipality of Stockholm a set of targets with indicators now guide action and monitoring of biological diversity.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following: |

| | | | |
|---|---|---|---|
| | | | • The nutrient status of arable land is well-balanced, with a good soil structure and humus content, and pollutant levels are so low as not to affect the functioning of ecosystems and human health.<br>• Agricultural land is cultivated in such a way as to minimize adverse environmental impacts and favour biological diversity.<br>• The land is cultivated in such a way as to maintain its long-term productive capacity.<br>• The agricultural landscape is open and varied, with plenty of small habitats and water environments.<br>• Biological, cultural and historical assets in the agricultural landscape that are the result of long traditional management are preserved or enhanced.<br>• Endangered species and habitat types, and also cultural environments, are protected and preserved.<br>• The habitats and dispersal pathways of non-domesticated plant and animal species in agricultural land are protected.<br>• The genetic variation in domesticated animals and plants is preserved. Cultivated plants are preserved to the extent possible in their historical locations.<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the following:<br>• There are viable populations of fish and other aquatic species that are directly dependent on lakes and streams.<br>• Structures using water that are valuable from a cultural and historical point of view (such as watermills) continue to be used. The natural flows and water levels in today's unexploited and virtually unspoiled streams are maintained, and the flows in streams affected by regulation are adjusted wherever possible to the needs of biological diversity.<br>• A good preservation status is maintained for valuable habitats for endangered, rare or care-demanding species and for natural habitats.<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• Lakes and streams have a good surface water status with respect to the composition of species and chemical and physical conditions in accordance with the Water Framework Directive.<br>• Genetically modified fish are not released.<br>• Biological diversity is restored and maintained in lakes |

| | | | |
|---|---|---|---|
| | | | and streams.<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.*<br>The outcomes within a generation should include the following:<br>• There are wetlands of various kinds all over the country with preserved biological diversity and cultural and historical assets.<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.<br>• Peat extraction is carried on in sites that are suitable with regard to the natural and cultural environment and biological diversity.<br>• As far as possible, wetlands are protected against drainage, peat extraction, road construction and other development operations. |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Endangered species and stocks can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• A good conservation status is maintained for habitats for endangered, rare and care-demanding species and for natural biotopes that are worth preserving.<br>• The natural beauty and natural and cultural assets of coastal and archipelago landscapes, biological diversity and variation are maintained by continuing prudent use.<br>• Consideration is given, in connection with fishing, shipping and other uses of seas and water areas, as well as construction and other development in coastal and archipelago areas, to the productive capacity, biological diversity, natural and cultural assets and outdoor recreation assets of the water areas.<br>• All Sweden's coastal waters have a good surface water status in terms of the composition of species and physical and chemical characteristics, as defined by |

| | | | |
|---|---|---|---|
| | | | the Water Framework Directive (Directive 2000 / 60 / EC). |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• The natural production capacity of forestland is preserved.<br>• The natural functions and processes of forest ecosystems are maintained.<br>• Natural regeneration is practised wherever the land is suitable for this method.<br>• The forests' natural hydrology is protected.<br>• No remedial measures are taken against the effects of forest fires.<br>• Care-demanding forests with valuable natural and cultural assets are managed in such a way as to preserve and enhance these assets.<br>• Forests where there is great variation in the age of the trees and the composition of tree species are protected.<br>• Cultural monuments and environments are protected.<br>• Importance is attached to forests as sources of nature experiences and recreation are taken into account.<br>• Endangered species and habitat types are protected.<br>• There are viable populations of indigenous plant and animal species living in natural conditions.<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.<br>• Cultural heritage assets, in particular the Sami cultural |

| | | | |
|---|---|---|---|
| | | | heritage, is preserved and enhanced.<br>• Reindeer husbandry, tourism, hunting, fishing and other use of the mountains, as well as construction and other development, are carried on with regard for the areas' long-term productive capacity, biological diversity and natural, cultural and recreational assets.<br>• Less damage is caused to mountain vegetation and the extent and thickness of the lichen cover is increasing.<br>• Endangered species that have suffered a significant decline can spread to new habitats in their natural area of distribution, thus ensuring viable populations.<br>• Local stocks of fish and other aquatic species in mountain lakes and streams are maintained. |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

A national strategy for biological diversity was approved by the parliament of Sweden following the ratification of CBD, and a set of sectorally focused action plans were produced. These action plans have now largely been replaced by an elaborate set of 15 environmental quality objectives, and 71 interim targets that provide guidance on measures to be taken and monitoring of success, and also by three strategies where the Strategy for Management of Land, Water and the Built Environment is the most relevant one for biodiversity. The sectoral treatment is still applied in the new framework. The interim targets hence provide the best overview of current strategy and action taken, both nationally and sectorally.

In addition, a number of national strategies further contribute to the CBD targets, e.g. the Swedish strategy for sustainable development, and the Swedish climate strategy. Within the sectors, a large number of strategies and programmes have been initiated to implement the environmental quality objectives. E.g. the Environmental Protection Agency and the National Board of Forestry have produced a common national stragegy for the protection of forests. Meanwhile, corresponding regional strategies are being prepared. By mid 2005 the strategies are meant to be finalised. Within the forest sector, so called "green" forest management plans include recommended areas for voluntary set-aside, which has proven to be a powerful tool.

The following interim targets are most relevant to the CBD Target 1.1:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.1: Protection of natural and cultural environments**

*By 2005 the competent authorities will have identified and drawn up action programmes for natural and cultural environments, in or in the vicinity of lakes or streams, that are of particularly high conservation value and require long-term protection. By 2010 long-term protection will be provided for at least half of these environments.*

**Interim target 8.2: Restoration of rivers and streams**

*By 2005 the competent authorities will have identified and drawn up action programmes for the restoration of Swedish rivers and streams of high conservation value or with the potential to acquire high conservation value following remediation. By 2010 at least 25% of valuable and potentially valuable rivers and streams will have been restored.*

**Interim target 8.3: Water protection areas**

*By 2009 water supply plans, including water protection areas and protection regulations, will have been adopted for all public and large private surface water sources. Large surface water sources are*

*defined as surface waters used for the abstraction of water and serving more than 50 persons or providing more than 10 m3 a day as an average.*

**Interim target 8.6: Programme of measures to achieve good surface water status**

*By 2009 a programme of measures as provided for in the EC Water Framework Directive will be established, specifying how good surface water status is to be achieved.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.1: Marine environments of high conservation value**

*By 2010 long-term protection will be provided for at least 50% of marine environments of high conservation value and at least 70% of coastal and archipelago areas with significant natural and cultural assets. By 2005 another five marine areas will be protected as reserves, and the competent authorities will have decided which other areas in the marine environment are in need of long-term protection.*

**Interim target 10.6: Noise and other disturbance**

*By 2010 noise and other disturbance from boat traffic will be negligible in particularly sensitive and designated archipelago and coastal areas.*

**Interim target 10.7: Discharges of oil and chemicals**

*By 2010 discharges of oil and chemicals from ships will be minimized and reduced to a negligible level by stricter legislation and increased monitoring.*

**Interim target 10.8: Programmes of measures to achieve good surface water status**

*By 2009 programmes of measures as provided for in the EC Water Framework Directive will be established, specifying how good surface water status can be achieved.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.1: Strategy for protection and management**

*A national strategy for the protection and management of wetlands and wet woodlands will be drawn up by 2005.*

**Interim target 11.3: Forest roads**

*By 2004 forest roads will not be built over wetlands with significant natural or cultural assets or in such a way as to adversely affect such wetlands in other respects.*

**Interim target 11.4: Wetlands on agricultural land**

*At least 12,000 hectares of wetlands and ponds will be established or restored on agricultural land by 2010.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.1: Long-term protection of forest land**

*A further 900,000 hectares of forest land of high conservation value will be excluded from forest production by the year 2010.*

**Interim target 12.2: Enhanced biological diversity**

*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:*

- *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.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.1: Meadow and pasture land**

*By 2010 all meadow and pasture land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and*

*the area of managed pasture land of the most endangered types will increase by at least 13,000 hectares by 2010.*

**Interim target 13.2: Small-scale habitats**

*Small-scale habitats on farmland will be preserved to at least the same extent as today throughout the country. By 2005 a strategy will have been adopted to increase the number of such habitats on the agricultural plains of Sweden.*

**Interim target 13.3: Culturally significant landscape features**

*The number and extent of culturally significant landscape features that are managed will increase by about 70% by 2010.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.1: Damage to soil and vegetation**

*By 2010 damage to soil and vegetation caused by human activities will be negligible.*

**Interim target 14.2: Noise**

*Noise in mountain areas from motor vehicles driven offroad and from aircraft will be reduced to meet the following requirements:*

- *by 2015 at least 60% of light all-terrain vehicles will meet stringent noise standards (below 73 dBA);*
- *by 2010 the noise from aircraft will be negligible both in class A regulated areas under the Off-Road Driving Ordinance (1978:594) and in at least 90% of the national park area.*

**Interim target 14.3: Natural and cultural assets**

*By 2010 long-term protection, including where necessary management and restoration measures, will have been provided for the majority of mountain areas with representative and significant natural and cultural assets.*

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

**Environmental quality objective 8: Flourishing Lakes and Streams**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

To attain the interim targets concerning the protection of valuable natural and cultural environments, more knowledge and a stepping up of conservation efforts are needed. To enable different interests to be taken into account when rivers and streams are restored, better coordination is called for. In addition, the costs of restoration need to be shared. In general, greater care should be taken in the agriculture and forestry sectors to avoid damage to lakes and streams. More information and closer supervision are needed to reduce the risks associated with stocking non-native species for fishing. Long-term protection should also be put in place for surface waters that are of importance for drinking water supplies.

**Interim target 8.1: Protection of natural and cultural environments**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 8.2: Restoration of rivers and streams**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 8.3: Water protection areas**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 8.6: Programme of measures to achieve good surface water status**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

By 2008, according to one of the interim targets, catches of fish are not to exceed rates of recruitment. The recent reform of the EU's Common Fisheries Policy paves the way for improved management of fish resources, but the decisions taken on catches make it clear that the policy changes have yet to produce results. It is therefore uncertain whether this interim target will be met by 2008. To tackle the problem of bycatch of marine mammals (e.g. porpoises), too, further action is

necessary: for example, it is possible to develop fishing gear that is selective for target species.
To achieve the interim targets concerning protection of cultural or natural environments, a combination of measures is required. For one thing, more resources need to be made available for establishing and managing marine reserves. The targets relating to the cultural environment also presuppose that environments and landscapes are used and managed with care. In the long run, therefore, complementary approaches, in addition to protection, need to receive more attention.

**Interim target 10.1: Marine environments of high conservation value**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

The National Board of Fisheries and the Swedish EPA have been asked by the Government to study the feasibility of introducing a ban on fishing in a marine protected area by 2005 and to evaluate the effects up to 2010. Without singling out any specific area, their study suggests that the next step should be to introduce a ban on a trial basis, following a local and regional consultation process with relevant stakeholders. It also shows that a total fishing ban in the areas considered will not be able to be put to the test by 2005, as there will not be time to complete the necessary consultations. Such consultations are necessary, since the local population see economical constraints and infringement problems.

**Interim target 10.6: Noise and other disturbance**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 10.7: Discharges of oil and chemicals**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 10.8: Programmes of measures to achieve good surface water status**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Environmental quality objective 11: Thriving Wetlands**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

The Mire Protection Plan for Sweden is not being implemented at a sufficiently rapid pace. One reason for this is that county administrative boards and local authorities have been unable to allocate sufficient staff to the task of designating reserves. Progress is also too slow when it comes to establishing new wetlands on agricultural land. Incentives for landowners to create or restore wetlands need to be improved. To achieve the interim target concerning the problems associated with building forest roads across wetlands, it is important to develop closer cooperation among the parties involved.

**Interim target 11.1: Strategy for protection and management**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 11.3: Forest roads**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 11.4: Wetlands on agricultural land**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Environmental quality objective 12: Sustainable Forests**

The objective will be very difficult to achieve to a sufficient degree within the defined time-frame.

The interim targets relating to protection of cultural or natural environments require a combination of measures. The pace of progress in terms of safeguarding forest areas is not fast enough. As for the target that calls for forest land to be managed in such a way as to avoid damage to ancient monuments and other cultural remains, knowledge about where such remains are located is of crucial importance. At present, the majority of ancient remains on forest land are unidentified. Measures to protect threatened species also need to be further developed.

**Interim target 12.1: Long-term protection of forest land**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

To meet the target, funds to purchase or pay compensation for around 37,000 ha of forest land will be needed every year up to and including 2010. For 2004, the budget for land purchase and compensation amounts to SEK 633 million, which is sufficient for 15,000–20,000 ha of forest land. This is barely half the required level of funding. It could therefore be difficult to achieve the target in full by 2010 and, at the same time, meet the need for nature reserves in different regions. As well as adequate funds, a key factor in attaining the target for nature reserves is a general strengthening of county administrative boards' organizational resources for reserve designation and an increase in the

number of decisions.

As for voluntary undertakings, the situation looks relatively promising. The area of voluntary set-aside is currently estimated to approximately 1,000,000 ha, which is a larger area than stipulated by the interim target. The forest certification schemes and the green forest management plans are the main driving forces. However, the permanence and quality of many of these undertakings is uncertain, and further monitoring is necessary.

**Interim target 12.2: Enhanced biological diversity**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Environmental quality objective 13: A Varied Agricultural Landscape**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

The area of pasture and especially meadow land contracted sharply down to the 1990s, but since then the trend has been more encouraging. This has created better conditions for conserving both cultural heritage assets and a range of different species. The fact that farmland is being taken out of production in certain parts of the country makes it difficult to achieve this objective at a regional level. Measures outside the sphere of agricultural policy are also necessary. To be able to preserve natural and cultural heritage assets in the long term, we need a better understanding of what these assets comprise, how they can best be conserved, and how progress in this area can be monitored. As far as preserving the condition and long-term productivity of arable land is concerned, existing measures in the agricultural sector are judged to be sufficient. The development of the farmed landscape depends to a large degree on the present structure and future reforms of the EU's Common Agricultural Policy.

**Interim target 13.1: Meadow and pasture land**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required. The area of meadows and semi-natural pasture managed according to conservation criteria has increased. Management and restoring of meadows and pastured are primarily funded under the Sweden's Rural Development Programme established under the EU Common Agricultural Policy.

**Interim target 13.2: Small-scale habitats**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.3: Culturally significant landscape features**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Environmental quality objective 14: A Magnificent Mountain Landscape**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

In mountain areas, combinations of grants for cultural heritage conservation and agri-environment payments to support the environments on which reindeer herding relies have produced good results, in the form of well-preserved overall environments. However, we do not know how the different types of pressures have changed in recent years; this is the case, for example, as regards the Sami cultural heritage, reindeer grazing and tourism. What we can say, though, is that tourism, reindeer herding, stocking of fish, and atmospheric deposition of pollutants are factors which affect the recreational value and natural and cultural assets of mountain regions. Noise from snowmobiles, all-terrain vehicles and aircraft in mountain settings appears to be an intractable problem.

**Interim target 14.1: Damage to soil and vegetation**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.2: Noise**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 14.3: Natural and cultural assets**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

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

**Environmental quality objective 8: Flourishing Lakes and Streams**

Indicators employed in monitoring:
*Limited nutrient leaching - catch crops*
*Limited nutrient leaching - protection zones*
*Energy use*
*Nitrogen deposition*
*Sulphur deposition*
*Arable land*
*Action programmes for endangered species*
*Protected lakes and watercourses*

**Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**

Indicators employed in monitoring:
*Limited nutrient leaching - catch crops*
*Limited nutrient leaching - protection zones*
*Fishery vessels*
*Phosphorus in the sea*
*Nitrogen in the sea*
*Fisheries*
*Arable land*
*Spawning cod biomass*
*Phosphorus entering coastal areas*
*Nitrogen entering coastal areas*
*Oil discharges in marine areas*
*Action programmes for endangered marine species*

**Environmental quality objective 11: Thriving Wetlands**

Indicators employed in monitoring:
*Energy use*
*Wetland protection*
*Artificial wetlands*
*Area of protected land in the bog protection plan*

**Environmental quality objective 12: Sustainable Forests**

Indicators employed in monitoring:
*Acidified forest soils*
*Deciduous forest*
*Nitrogen deposition*
*Sulphur deposition*
*Old forests*
*Hard dead wood*
*Protected forest land - habitat protection*
*Protected forest land - nature conservation agreements*

**Environmental quality objective 13: A Varied Agricultural Landscape**

Indicators employed in monitoring:
*Land under organic cultivation*
*Arable land*

*Landscape conservation*
*Meadow and pasture land*

**Environmental quality objective 14: A Magnificent Mountain Landscape**
Indicators employed in monitoring:
*Number of wolverines in mountain areas*
*Number of reindeer in mountain areas*
*Mountain areas free of development*
*Nitrogen deposition*
*Sulphur deposition*
*Noise-free mountain zones*
*Ligth all-terrain vehicles meeting noise standards*
*Protected mountain environments*

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

See above

VII) Please provide any other relevant information.

**Box IV.**

| **Target 1.2** | **Areas of particular importance to biodiversity protected** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• Biological, cultural and historical assets in the agricultural landscape that are the result of long traditional management are preserved or enhanced.<br>• Endangered species and habitat types, and also cultural environments, are protected and preserved |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural* |

| | | | |
|---|---|---|---|
| | | | *productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the following:<br>• Structures using water that are valuable from a cultural and historical point of view (such as watermills) continue to be used. The natural flows and water levels in today's unexploited and virtually unspoiled streams are maintained, and the flows in streams affected by regulation are adjusted wherever possible to the needs of biological diversity.<br>• A good preservation status is maintained for valuable habitats for endangered, rare or care-demanding species and for natural habitats.<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.*<br>The outcomes within a generation should include the following:<br>• As far as possible, wetlands are protected against drainage, peat extraction, road construction and other development operations. |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• A good conservation status is maintained for habitats for endangered, rare and care-demanding species and for natural biotopes that are worth preserving. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following: |

| | | | |
|---|---|---|---|
| | | | • Forests where there is great variation in the age of the trees and the composition of tree species are protected.<br>• Endangered species and habitat types are protected. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• The majestic mountain scenery with its pastures and extensive continuous open spaces is intact.<br>• Biological diversity in mountainous areas is preserved |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III

The following interim targets are most relevant to the CBD Target 1.2:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.1: Protection of natural and cultural environments**

*By 2005 the competent authorities will have identified and drawn up action programmes for natural and cultural environments, in or in the vicinity of lakes or streams, that are of particularly high conservation value and require long-term protection. By 2010 long-term protection will be provided for at least half of these environments.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.1: Marine environments of high conservation value**

*By 2010 long-term protection will be provided for at least 50% of marine environments of high conservation value and at least 70% of coastal and archipelago areas with significant natural and cultural assets. By 2005 another five marine areas will be protected as reserves, and the competent authorities will have decided which other areas in the marine environment are in need of long-term protection.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.2: Mire protection plan**

*By 2010 long-term protection will be provided for all the wetland areas listed in the Mire Protection Plan for Sweden.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.1: Long-term protection of forest land**

*A further 900,000 hectares of forest land of high conservation value will be excluded from forest production by the year 2010.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.1: Meadow and pasture land**

*By 2010 all meadow and pasture land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and the area of managed pasture land of the most endangered types will increase by at least 13,000 hectares by 2010.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.3: Natural and cultural assets**

*By 2010 long-term protection, including where necessary management and restoration measures, will have been provided for the majority of mountain areas with representative and significant natural and cultural assets.*

The European Union network Natura 2000 is an important tool for the protection of threatened habitats and species. Two EC Directives, on European bird species, and on threatened species and habitats, list all species (about 900) and associated habitats (170 different) that need community wide attention. Each member country is obliged to protect a fair amount of such habitats, and to implement measures to ensure a favourable conservation status. In Sweden the Natura 2000 network includes close to 4000 areas, measuring a total of 6.4 million ha.

As a party to HELCOM and OSPAR Sweden is contributing to the development of a network of protected areas in the Baltic area.

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

See Box III for status and trends of Environmental quality objectives 8, 10, 11, 12, 13 & 14.

**Interim target 8.1: Protection of natural and cultural environments**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 10.1: Marine environments of high conservation value**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Also see Box III.

**Interim target 11.2: Mire protection plan**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 12.1: Long-term protection of forest land**

The target will be difficult to achieve to a sufficient degree within the defined time-frame.

Also see Box III.

**Interim target 13.1: Meadow and pasture land**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required. The area of meadows and semi-natural pasture managed according to conservation criteria has increased. Management and restoring of meadows and pastured are primarily funded under the Sweden's Rural Development Programme established under the EU Common Agricultural Policy.

**Interim target 14.3: Natural and cultural assets**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

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

| |
|---|
| See Target 1.1 above. |
| VI) Please provide information on challenges in implementation of this target. |
| See above. |
| VII) Please provide any other relevant information. |
| The implementation of this target is achieved through coordinated cooperation with HELCOM, OSPAR and the European Union. |

**Box V.**

| **Goal 2** | **Promote the conservation of species diversity** |
|---|---|
| **Target 2.1** | **Restore, maintain, or reduce the decline of populations of species of selected taxonomic groups** |

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box II and III.

Within the current Environmental quality objectives, there are several interim targets related to this target. The Parliament of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity. An interim target proposed by government is a decrease in the number of endangered species by 30% by 2015.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• Endangered species and habitat types, and also cultural environments, are protected and preserved.<br>• The habitats and dispersal pathways of non-domesticated plant and animal species in agricultural land are protected. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the |

| | | | |
|---|---|---|---|
| | | | following:<br>• There are viable populations of fish and other aquatic species that are directly dependent on lakes and streams.<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• Lakes and streams have a good surface water status with respect to the composition of species and chemical and physical conditions in accordance with the Water Framework Directive.<br>• Biological diversity is restored and maintained in lakes and streams.<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.*<br>The outcomes within a generation should include the following:<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations. |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Endangered species and stocks can spread to new habitats in their natural areas of distribution, thus ensuring viable populations.<br>• All Sweden's coastal waters have a good surface water status in terms of the composition of species and physical and chemical characteristics, as defined by the Water Framework Directive (Directive 2000 / 60 / EC). |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following: |

| | | | |
|---|---|---|---|
| | | | • Endangered species and habitat types are protected.<br>• There are viable populations of indigenous plant and animal species living in natural conditions.<br>• Endangered species can spread to new habitats in their natural areas of distribution, thus ensuring viable populations. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Endangered species that have suffered a significant decline can spread to new habitats in their natural area of distribution, thus ensuring viable populations.<br>• Local stocks of fish and other aquatic species in mountain lakes and streams are maintained. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 2.1:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.5: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species and fish stocks that are in need of targeted measures.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.3: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened marine species and fish stocks that are in need of targeted measures.*

**Interim target 10.4: Bycatches**

*By 2010 total annual bycatches of marine mammals will not exceed 1% of each population. Bycatches of sea birds and undesired fish species will have been reduced to levels that have no adverse effect on the populations concerned.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.5: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.4: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.5: Action programmes for threatened species**

*By 2006 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.4: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

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

See Box III for status and trends of Environmental quality objectives 8, 10, 11, 12, 13 & 14.

**Interim target 8.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 10.3: Action programmes for threatened species**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 10.4: Bycatches**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Generally, the state of knowledge about bycatches of birds and marine mammals is poor. With regard to seals and porpoises, reporting is voluntary, and many instances may therefore go unrecorded. To improve data on bird and mammal bycatches, more fishermen are to be enlisted to keep records of bycatches and damage to gear.

**Interim target 11.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 12.4: Action programmes for threatened species**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.4: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

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

See Box III.

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

See above.

VII) Please provide any other relevant information.

**Box VI.**

| **Target 2.2** | **Status of threatened species improved** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box II and III.

Within the current Environmental quality objectives, there are several interim targets related to this target. The Parliament of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity. An interim target proposed by government is a decrease in the number of endangered species by 30% by 2015. A reduction by 30% by 2015 would require that some accomplishment by the year 2010. This will be evaluated through the ordinary assessment of the whole system of environmental quality objectives, as well as through the national red-list 2010 edition.

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

| **Programme of work** | **Yes** | **No** | **Details** |
|---|---|---|---|
| a) Agricultural | **X** | | See Box V. |
| b) Inland water | **X** | | See Box V. |
| c) Marine and coastal | **X** | | See Box V. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | See Box V. |
| f) Mountain | **X** | | See Box V. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box V.

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

See Box V.

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

See Box III.

Complementing the main indicator framework, the national Red List is the main tool for the monitoring of threatened species. The Swedish Species Information Centre is an institution gathering information on species on a national level, as well as continually evaluating, analyzing and presenting it. The Centre is working independently from universities, authorities and other interests. The Red List assessments according to the IUCN system are performed by the Centre, in cooperation with a wide network of experts on almost all organism groups, allowing for coordination across organism groups.

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

| VII) Please provide any other relevant information. |
|---|
| |

**Box VII.**

| **Goal 3** | **Promote the conservation of genetic diversity** |
|---|---|
| **Target 3.1** | **Genetic diversity of crops, livestock, and of harvested species of trees, fish and wildlife and other valuable species conserved, and associated indigenous and local knowledge maintained** |

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III. In the proposal to Parliament on "A Rich Biodiversity" (se box II), government also notifies that an Action Program on Conservation of Genetic Diversity will be elaborated.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• The genetic variation in domesticated animals and plants is preserved. Cultivated plants are preserved to the extent possible in their historical locations. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the following: |

| | | | |
|---|---|---|---|
| | | | • Genetically modified fish are not released. |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• Natural regeneration is practised wherever the land is suitable for this method. |
| f) Mountain | | **X** | |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim target is most relevant to the CBD Target 3.1:

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.4: Plant genetic resources and indigenous breeds**

*By 2010 the national programme for plant genetic resources will be fully developed and there will be sufficient numbers of individuals to ensure the long-term conservation of indigenous breeds of domestic animals in Sweden.*

A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species. For livestock a management plan has been taken. There is also program for subsidies for keeping ancient breeds that are threatened with extinction.

The Swedish National Board of Fisheries has adopted a national strategy for the introduction and transfer of fish in order to preserve the biological diversity of indigenous populations. The Swedish National Board of Fisheries has also developed a strategy for preserving the genetic diversity of salmon *Salmo salar* by limiting stocking into rivers and streams to populations originating from the receiving river or adjacent rivers.

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

See Box III for status and trends of Environmental quality objectives 8, 12 & 13.

**Interim target 13.4: Plant genetic resources and indigenous breeds**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

The effects of the national strategy for the introduction and transfer of fish has not been evaluated. The general practice of stocking with nonindigenous populations of fish has not decreased, so the situation is unchanged. Knowledge and awareness of the problem of decreasing genetic variation through the practices of introducing non-indigenous populations is becoming more widespread. This should eventually lead to more restrictive use of non-indigenous populations in fisheries and forestry.

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

No indicators at the genetic level have been adopted, and there is no monitoring of genetic parameters. Instead, the success of the programme for plant genetic resources may be estimated through the number of accessions in ex-situ collections.

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

The genetic level of biological diversity is in a limited extent addressed in the national objectives, targets and action plans. The targets and measures that have been taken are almost exclusively aimed at crops, livestock and fisheries, whereas the genetic status of wild animal and plant populations isnot yet sufficiently covered. One challenge is the lack of scientific data on the genetic variation among wild populations. See above regarding the Action Program on Conservation of Genetic Diversity that will be elaborated.

Economic gains from the widespread practice of stocking with hatchery-reared fish make changes very difficult. Fishery practices which help indigenous populations and species increase in number are more long-term and require more expensive investments. Government subsidies to hatcheries and fishing organizations for stocking with hatchery-reared fish are clearly counter-productive incentives.

VII) Please provide any other relevant information.

**Box VIII.**

| **Goal 4** | **Promote sustainable use and consumption.** |
|---|---|
| **Target 4.1** | **Biodiversity-based products derived from sources that are sustainably managed, and production areas managed consistent with the conservation of biodiversity** |

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III.

The Swedish Strategy for Sustainable Economic, Social and Environmental Development (2003) is a revised version of the national strategy for sustainable development presented in 2002. The strategy builds on the 2002 World Summit on Sustainable Development held in Johannesburg, the EU strategy for sustainable development, and addresses the three dimensions of sustainable development: economic, social and environmental.

The strategy addresses sustainable use of biological diversity in four core areas:

**1. Ecological sustainability – Swedish environmental goals**
The overall aim of Swedish environmental policy is to hand on to the next generation a society in which the major environmental problems have been solved. To this end, the government has drawn up 15 environmental quality objectives. These identify future environmental goals and define the direction of Sweden's environmental work at national, EU and international level. Three basic environmental strategies have been adopted. These are based on the need for greater energy efficiency and more effi- cient transport systems, non-toxic, resourcesaving ecocycles, environmentally sound products, efficient management of land and water resources and a sound built environment.

**2. Nature conservation and biological diversity**
Nature conservation and the preservation of biological diversity are the cornerstones of a sustainable society. As of 2004, the government will allocate SEK 300 million over a three-year period in an effort to encourage locally based nature conservation projects. Other initiatives include increased support for nature reserves, action to reduce acidification of Sweden's lakes and measures aimed at preserving biological diversity on agricultural land.

**3. The sea**
Shipping, fishing, toxic effluents, over-fertilisation and climate change all have a detrimental impact on the marine environment. In 2005, the government will propose measures designed to break this negative trend. The goal in this sector is a balanced marine environment and a living coastline and archipelago. Sweden actively promotes international initiatives to preserve the marine environment. It has been proactive in efforts to classify the Baltic Sea as a Particularly Sensitive Sea Area (PSSA). It has also played an active part in implementing the strategy drawn up by the EU to protect and preserve the marine environment. The environmental impact of shipping and fishing will be adressed at a ministerial meeting in 2006.

**4. Towards a non-toxic environment**
A crucial task over the next few years will be to pursue efforts in connection with new EU chemical legislation and a global chemical strategy. In the last two years, a number of strategies and proposed measures have been advanced by Sweden and the EU. Examples of the former include demands for better information about chemicals in goods and a reduction in the use of hazardous substances.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• Agricultural land is cultivated in such a way as to minimize adverse environmental impacts and favour biological diversity.<br>• The land is cultivated in such a way as to maintain its long-term productive capacity. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.* |

| | | | |
|---|---|---|---|
| | | | **Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.*<br>The outcomes within a generation should include the following:<br>• Peat extraction is carried on in sites that are suitable with regard to the natural and cultural environment and biological diversity. |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Consideration is given, in connection with fishing, shipping and other uses of seas and water areas, as well as construction and other development in coastal and archipelago areas, to the productive capacity, biological diversity, natural and cultural assets and outdoor recreation assets of the water areas. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• The natural production capacity of forestland is preserved.<br>• The natural functions and processes of forest ecosystems are maintained.<br>• No remedial measures are taken against the effects of forest fires.<br>• Care-demanding forests with valuable natural and cultural assets are managed in such a way as to preserve and enhance these assets. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable* |

| | | | |
|---|---|---|---|
| | | | *development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Reindeer husbandry, tourism, hunting, fishing and other use of the mountains, as well as construction and other development, are carried on with regard for the areas' long-term productive capacity, biological diversity and natural, cultural and recreational assets. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim target is most relevant to the CBD Target 4.1:

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.5: Catches – recruitment**

*By 2008 catches of fish, including bycatches of juveniles, will not exceed recruitment, enabling fish stocks to survive and, where necessary, recover.*

The two national certification schemes/standards (FSC and PEFC) also contribute to sustainable mangement of the forest in Sweden. This is a voluntary measure among forest owners in Sweden.

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

See Box III for status and trends of Environmental quality objectives 8, 10, 11, 12, 13 & 14.

**Interim target 10.5: Catches – recruitment**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

In December 2003 the EU Council adopted a recovery plan for cod and the northern hake stock in the Kattegat and Skagerrak. It includes measures to achieve a biologically sustainable population of adult cod. The total allowable catch (TAC) is to be reduced, to enable the spawning biomass of cod to increase by at least 30% a year. However, the recovery plan has not been followed up with acceptable catch quota decisions. Owing to the excessively high quotas for haddock and plaice, which result in an unacceptable bycatch of cod.

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

See Box III.

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

A general problem with targets and monitoring of sustainable use is the elusive character of the concept. It is easy to define the concept of sustainable use of a specific resource, such as the spruce of Swedish forestry, or the cod of our fisheries. There is however a challenge in working out sustainable levels of harvesting, and even greater challenges in adhering to such a level, especially when the resource is shared between several countries. Fisheries is such an activity for which the EU has found it extremely difficult to agree on sustainable catches based on scientific insights and monitoring data.

The challenge grows considerably given the definition of sustainable use employed in the CBD articles. It is not just the resource itself, but the entire biodiversity of the ecosystem that must be

maintained. This wider definition is valuable, but it does not lead to simple targets for sustainable use. In Swedish forestry, the timber resource has been used sustainably for 100 years, in accordance with Swedish law, but there is no clear formulation of exactly what sustainable forestry, sensu CBD, means. Hence, no targets or monitoring activities are aimed at sustainable forestry per se. The issue of sustainability has certainly been taken seriously by forestry authorities and the industry, and a large number of targets and indicators expressing various quantities and qualities of the forest have been produced. We do not, however, know that the current practices will not lead to a long-term decline in biological diversity.

In the proposal to Parliament on "A Rich Biodiversity" (se box II), government launch a proposal an a specific interim target on Sustainable use of biodiversity and biological diversity. The government also notifies several actions on sustainable use, including the intention to commission the agencies for forestry, agriculture, reindeer breeding and fisheries to develop operative definition and criteria on "sustainable use" (with the CBD definition as the point of departure), with the purpose to apply and assess the application of these definitions and criteria in the relevant sectors.

VII) Please provide any other relevant information.

This is a key aspect and entry-point within Sweden's development cooperation (providing useful linkages to the millennium Development Goals and poverty alleviation objectives).

**Box IX.**

| **Target 4.2** | **Unsustainable consumption, of biological resources, or that impacts upon biodiversity, reduced** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III.

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

| **Programme of work** | **Yes** | **No** | **Details** |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Consideration is given, in connection with fishing, |

| | | | |
|---|---|---|---|
| | | | shipping and other uses of seas and water areas, as well as construction and other development in coastal and archipelago areas, to the productive capacity, biological diversity, natural and cultural assets and outdoor recreation assets of the water areas. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 4.2:

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.4: Bycatches**

*By 2010 total annual bycatches of marine mammals will not exceed 1% of each population. Bycatches of sea birds and undesired fish species will have been reduced to levels that have no adverse effect on the populations concerned.*

**Interim target 10.5: Catches – recruitment**

*By 2008 catches of fish, including bycatches of juveniles, will not exceed recruitment, enabling fish stocks to survive and, where necessary, recover.*

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

See Box III for status and trends of Environmental quality objective 10.

**Interim target 10.4: Bycatches**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Generally, the state of knowledge about bycatches of birds and marine mammals is poor. With regard to seals and porpoises, reporting is voluntary, and many instances may therefore go unrecorded. To improve data on bird and mammal bycatches, more fishermen are to be enlisted to keep records of bycatches and damage to gear.

**Interim target 10.5: Catches – recruitment**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

In December 2003 the EU Council adopted a recovery plan for cod and the northern hake stock in the Kattegat and Skagerrak. It includes measures to achieve a biologically sustainable population of adult cod. The total allowable catch (TAC) is to be reduced, to enable the spawning biomass of cod to increase by at least 30% a year. However, the recovery plan has not yet been followed up with acceptable catch quota decisions. Owing to the excessively high quotas for haddock and plaice, which result in an unacceptable bycatch of cod.

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

See Box III.

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

See above.

VII) Please provide any other relevant information.

**Box X.**

| **Target 4.3** | **No species of wild flora or fauna endangered by international trade** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

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

| **Programme of work** | **Yes** | **No** | **Details** |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

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

| | |
|---|---|
| a) No | **X** |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | |

Please provide details below.

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

As a party to CITES, Sweden relies on the convention in order to achieve the target. According to the CITES Secretariat no listed taxa has been exterminated due to trade after it has been listed. There is however still demand on the market for living and dead specimens of threatened fauna and flora.

The Parliament of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity (see box II). In practice, and in

Swedish law, this target has been enforced regarding the taking of and trading in protected vertebrate species.

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

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

Legislation and treaties on international trade can now only be applied to trade with non-EU countries, as the common market within the EU has opened national borders. Hence, CITES is applied at the community level, not the national level. The task of monitoring trade and enforcing trade regulations regarding threatened species is hence more demanding.

VII) Please provide any other relevant information.

**Box XI.**

| **Goal 5** | **Pressures from habitat loss, land use change and degradation, and unsustainable water use, reduced.** |
|---|---|
| **Target 5.1** | **Rate of loss and degradation of natural habitats decreased** |

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box II and III.

**Environmental quality objective 3: Natural Acidification Only**

*The acidifying effects of deposition and land use must not exceed the limits that can be tolerated by soil and water. In addition, deposition of acidifying substances must not increase the rate of corrosion of technical materials or cultural artefacts and buildings.*

**Environmental quality objective 4: A Non-Toxic Environment**

*The environment must be free from man-made or extracted compounds and metals that represent a threat to human health or biological diversity.*

**Environmental quality objective 7: Zero Eutrophication**

*Nutrient levels in soil and water must not be such that they adversely affect human health, the conditions for biological diversity or the possibility of varied use of land and water.*

**Environmental quality objective 15: A Good Built Environment**

*Cities, towns and other built-up areas must provide a good, healthy living environment and contribute to a good regional and global environment. Natural and cultural assets must be protected and developed. Buildings and amenities must be located and designed in accordance with sound environmental principles and in such a way as to promote sustainable management of land, water and other resources.*

The National Board of Forestry has adopted a policy to preserve forest and woodland key habitats

(forests with very high conservation values), using all existing means. The proposed interim targets 1 and 2 under the proposed new environmental quality objective "A Rich Biodiversity" (see box II) corresponds to target 5.1. As part of the voluntary certification process forest industry companies (e.g. following the Forest Stewardship Council criteria) have pledged not to cut such forests. The Board is currently revising the target.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• The agricultural landscape is open and varied, with plenty of small habitats and water environments.<br>• Endangered species and habitat types, and also cultural environments, are protected and preserved.<br>• The habitats and dispersal pathways of non-domesticated plant and animal species in agricultural land are protected. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the following:<br>• Structures using water that are valuable from a cultural and historical point of view (such as watermills) continue to be used. The natural flows and water levels in today's unexploited and virtually unspoiled streams are maintained, and the flows in streams affected by regulation are adjusted wherever possible to the needs of biological diversity.<br>• A good preservation status is maintained for valuable habitats for endangered, rare or care-demanding species and for natural habitats.<br>• Lakes and streams have a good surface water status with respect to the composition of species and chemical and physical conditions in accordance with the Water Framework Directive.<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.* |

| | | | |
|---|---|---|---|
| | | | The outcomes within a generation should include the following:<br>• There are wetlands of various kinds all over the country with preserved biological diversity and cultural and historical assets.<br>• Peat extraction is carried on in sites that are suitable with regard to the natural and cultural environment and biological diversity.<br>• As far as possible, wetlands are protected against drainage, peat extraction, road construction and other development operations. |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• A good conservation status is maintained for habitats for endangered, rare and care-demanding species and for natural biotopes that are worth preserving.<br>• The natural beauty and natural and cultural assets of coastal and archipelago landscapes, biological diversity and variation are maintained by continuing prudent use.<br>• All Sweden's coastal waters have a good surface water status in terms of the composition of species and physical and chemical characteristics, as defined by the Water Framework Directive (Directive 2000 / 60 / EC). |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• The forests' natural hydrology is protected.<br>• No remedial measures are taken against the effects of forest fires.<br>• Care-demanding forests with valuable natural and cultural assets are managed in such a way as to preserve and enhance these assets.<br>• Endangered species and habitat types are protected. |

| | | | |
|---|---|---|---|
| | | | |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Less damage is caused to mountain vegetation and the extent and thickness of the lichen cover is increasing. |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 5.1:

Environmental quality objective 3: Natural Acidification Only

**Interim target 3.1: Acidification of lakes and streams**

*By 2010 not more than 5% of all lakes and 15% of the total length of running waters in the country will be affected by anthropogenic acidification.*

**Interim target 3.2: Acidification of forest soils**

*By 2010 the trend towards increased acidification of forest soils will have been reversed in areas that have been acidified by human activities, and a recovery will be under way.*

Environmental quality objective 4: A Non-Toxic Environment

**Interim target 4.6: Contaminated sites**

*By 2005 contaminated sites will have been identified and remediation will have begun at a minimum of 100 of the sites given highest priority with regard to the risks to human health and the environment. In addition, remediation will have been completed at a minimum of 50 of the sites at which such work has begun.*

Environmental quality objective 7: Zero Eutrophication

**Interim target 7.1: Programmes of measures to achieve good ecological status**

*By 2009 programmes of measures as provided for in the EC Water Framework Directive will be established, specifying how good ecological status is to be achieved in lakes and streams and in coastal waters.*

**Interim target 7.2: Phosphorus emissions**

*By 2010 Swedish waterborne anthropogenic emissions of phosphorus compounds into lakes, streams and coastal waters will have decreased continuously from 1995 levels.*

**Interim target 7.3: Nitrogen emissions**

*By 2010 Swedish waterborne anthropogenic emissions of nitrogen into sea areas south of the Åland Sea will have been reduced by at least 30% compared with 1995 levels, to 38,500 tonnes.*

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.2: Restoration of rivers and streams**

*By 2005 the competent authorities will have identified and drawn up action programmes for the restoration of Swedish rivers and streams of high conservation value or with the potential to acquire high conservation value following remediation. By 2010 at least 25% of valuable and potentially valuable rivers and streams will have been restored.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.7: Discharges of oil and chemicals**

*By 2010 discharges of oil and chemicals from ships will be minimized and reduced to a negligible level by stricter legislation and increased monitoring.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.3: Forest roads**

*By 2004 forest roads will not be built over wetlands with significant natural or cultural assets or in such a way as to adversely affect such wetlands in other respects.*

**Interim target 11.4: Wetlands on agricultural land**

*At least 12,000 hectares of wetlands and ponds will be established or restored on agricultural land by 2010.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.2: Enhanced biological diversity**

*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:*

- *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.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.1: Meadow and pasture land**

*By 2010 all meadow and pasture land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and the area of managed pasture land of the most endangered types will increase by at least 13,000 hectares by 2010.*

**Interim target 13.2: Small-scale habitats**

*Small-scale habitats on farmland will be preserved to at least the same extent as today throughout the country. By 2005 a strategy will have been adopted to increase the number of such habitats on the agricultural plains of Sweden.*

**Interim target 13.3: Culturally significant landscape features**

*The number and extent of culturally significant landscape features that are managed will increase by about 70% by 2010.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.1: Damage to soil and vegetation**

*By 2010 damage to soil and vegetation caused by human activities will be negligible.*

**Interim target 14.3: Natural and cultural assets**

*By 2010 long-term protection, including where necessary management and restoration measures, will have been provided for the majority of mountain areas with representative and significant natural and cultural assets.*

Environmental quality objective 15: A Good Built Environment

**Interim target 15.6: Landfill sites**

*All landfill sites will conform to uniform standards by 2008 and will meet stringent environmental requirements in accordance with Council Directive 1999/31/EC on the landfill of waste.*

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

**Environmental quality objective 3: Natural Acidification Only**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Acidification affects both surface waters and soil and groundwater. Measured against the Environmental Protection Agency's environmental quality criteria, 10% of Sweden's lakes (not treated with lime) with an area of more than four hectares were acidified in 2000, a decrease compared with 1995. The trend towards more severe acidification of forest soils has probably been reversed. To meet the interim target for nitrogen oxide emissions, further measures will be needed to reduce emissions from vehicles, ships and mobile machinery.

**Interim target 3.1: Acidification of lakes and streams**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 3.2: Acidification of forest soils**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Environmental quality objective 4: A Non-Toxic Environment**

The objective will be very difficult to achieve to a sufficient degree within the defined time-frame.

The prospects of reducing the environmental impacts of chemicals in Sweden depend to a very significant degree on the chemicals policy adopted by the EU. Negotiations are currently in progress within the EU Council on new legislation to introduce a system known as REACH (Registration, Evaluation and Authorization of Chemicals). To achieve the targets concerning data on properties of chemical substances, health and environmental information, and the phase-out of particularly hazardous substances contained in products, Sweden must play an active role in that context.

Through both food and drinking water, the population is continuously exposed to low concentrations of a range of substances with proven adverse effects on health, including heavy metals (cadmium, mercury etc.) and persistent organic compounds (PCBs, dioxins, brominated flame retardants etc.). To what extent this exposure affects people's health is impossible to assess at present, but estimates suggest that, for some of the substances concerned, the margins between current exposure and adverse effect levels are small or nonexistent. Assessing the impacts of environmental factors on human health is generally difficult, owing to the very limited data available in most cases, regarding both causal links and exposure levels.

As for remediation of contaminated sites, it has taken a long time to develop the necessary procedures and expertise in Sweden, and it will be very difficult to achieve the pace of remediation needed to meet the interim target.

**Interim target 4.6: Contaminated sites**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

The number of suspected contaminated sites is considerably higher than was previously assumed. County administrative boards have now identified around 35,000, and believe there to be another roughly 10,000. With an investment of around SEK 1 billion a year (with central government providing just over half and responsible operators – where they exist – paying for the rest), it would take around 45 years to tackle most of the risks to health and the environment attributable to contaminated sites.

**Environmental quality objective 7: Zero Eutrophication**

The objective will be very difficult to achieve to a sufficient degree within the defined time-frame.

Despite a reduction of emissions, the Baltic Sea remains severely eutrophicated. In the Baltic Sea proper, levels of phosphorus have continued to rise since 1995, while nitrogen concentrations are largely unchanged. Eutrophication is also a problem in the Skagerrak and Kattegat, but there the situation has improved somewhat in recent years. Many lakes, too, are suffering from eutrophication, with phosphorus and nitrogen levels unchanged or showing a slight decrease.

Swedish inputs of nitrogen and phosphorus to the sea areas around its coasts fell somewhat over the period 1995–2000. In the case of nitrogen, sewage treatment plants were responsible for the biggest reduction. In agriculture, nitrogen emissions remained unchanged, while emissions of phosphorus decreased. Since 2000, nitrogen losses from agriculture have declined. Singlehousehold sewage systems (septic tanks etc.) account for 10% of Swedish phosphorus emissions, and if more second homes not served by municipal treatment plants are converted into year-round residences there is a risk of these emissions increasing. Further action is needed to reduce emissions from single-household treatment systems and leaching from famland.

**Interim target 7.1: Programmes of measures to achieve good ecological status**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 7.2: Phosphorus emissions**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 7.3: Nitrogen emissions**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Improved modelling of nitrogen emissions to water in 1995 shows that they were considerably higher that year than previously estimated, and the earlier figure of 55,000 tonnes has now been revised to 67,000 tonnes. Since the interim target calls for a reduction of 30% compared with 1995, this means that annual emissions must fall by 20,000 tonnes by 2010, rather than the earlier calculated figure of 16,500 tonnes. The measures planned, however, correspond to a reduction of only 15,600 tonnes. In view of this, additional action will be needed to meet this target.

See Box III for status and trends regarding Environmental quality objectives 8, 10, 11, 12, 13 & 14.

**Interim target 8.2: Restoration of rivers and streams**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 10.7: Discharges of oil and chemicals**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 11.3: Forest roads**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 11.4: Wetlands on agricultural land**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 12.2: Enhanced biological diversity**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.1: Meadow and pasture land**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required. The area of meadows and semi-natural pasture managed according to conservation criteria has increased. Management and restoring of meadows and pastured are primarily funded under the Sweden's Rural Development Programme established under the EU Common Agricultural Policy.

**Interim target 13.2: Small-scale habitats**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.3: Culturally significant landscape features**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.1: Damage to soil and vegetation**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.3: Natural and cultural assets**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Environmental quality objective 15: A Good Built Environment**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Some of the interim targets under A Good Built Environment will be difficult to meet by the target dates, more specifically the ones relating to built environments of cultural heritage value, noise, and the indoor environment. There is therefore considerable uncertainty as to whether the environmental quality objective as a whole can be achieved within one generation. Several of the interim targets relate to infrastructure and supply systems, e.g. those concerning traffic noise, natural gravel, waste, and energy use in buildings. Other dimensions than these also need to be taken into account if the objective is to be attained. Security, accessibility and participation, for example, are important in shaping people's perceptions of their built environment. To achieve this environmental quality objective, increased resources and/or a reordering of priorities at the local and regional levels are essential.

**Interim target 15.6: Landfill sites**

Current conditions are sufficient to achieve the target within the defined time-frame.

As a result of the policy of the National Board of Forestry to preserve forest and woodland key habitats (very high conservation value forests) some 800,000 ha of key habitat is estimated to exist (based on a sampling study). Of these 250,000 – 300,000 ha have been gazetted. It appears that the rate of cutting of key habitat forests has decreased sharply over the past 10 year period. However, a rough estimate indicates that still 1000 – 2000 ha are cut annuallly.

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

In addition to indicators given in Box III, the following are employed:

**Environmental quality objective 3: Natural Acidification Only**

Indicators employed in monitoring:

*Energy use*
*Nitrogen deposition*
*Sulphur deposition*
*Acidified lakes*
*NOx emissions*
*Sulphur dioxide emissions*
*Acidified forest soils*
*Deciduous forest*

**Environmental quality objective 4: A Non-Toxic Environment**

Indicators employed in monitoring:

*Land under organic cultivation*
*Organic milk*
*Environmental management systems*
*Allergenic chemical products*
*Contaminated sites*
*CMR substances in chemical products*

**Environmental quality objective 7: Zero Eutrophication**

Indicators employed in monitoring:

*Limited nutrient leaching - catch crops*
*Limited nutrient leaching - protection zones*
*Phosphorus in the sea*
*Nitrogen in the sea*
*Phosphorus entering coastal areas*
*Nitrogen entering coastal areas*

*Arable land*
*NOx emissions*
*Ammonia emissions*

**Environmental quality objective 15: A Good Built Environment**
Indicators employed in monitoring:
*Benzene in air*
*Historic buildings*
*Energy use*
*Radon in drinking water*
*Radon in apartment buildings*
*Radon in schools*
*Radon in houses*
*Landfilled household waste*
*Recycling of glass*
*Recycling of metal*
*Recycling of paper/cardboard*
*Recycling of plastic*
*Recycling of corrugated cardboard*
*Municipal cultural environment programmes*
*Municipal programmes for green areas and aquatic areas*
*Municipal transport programmes*
*Gravel use*

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

The ambition of the National Board of Forestry to preserve forest and woodland key habitats (very high conservation value forests) is challenged by the difficulty to inventory such small land parcels. Most parcels cover less than 1 ha. Less than half the area of key habitats has been gazetted. Another serious problem lies in the communication between forestry authorities and land-owners. The general acceptance by land-owners to preserve these areas voluntarily, as part of their responsibility to apply the wide CBD meaning of sustainable forestry, has not improved during recent years. The debate regarding key habitats has become more tense.

VII) Please provide any other relevant information.

**Box XII.**

| **Goal 6** | **Control threats from invasive alien species.** |
|---|---|
| **Target 6.1** | **Pathways for major potential alien invasive species controlled** |

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III.

The existing Environmental quality objectives address the intentional introduction of alien species and genetically modified organisms into natural habitats. The unintentional introduction of such organisms, and the pathways involved, are not addressed explicitly.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced.<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Alien species and genetically modified organisms that may be a threat to biological diversity are not introduced. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim target is most relevant to the CBD Target 6.1:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.4: Releases of animals and plants**

*By 2005 releases of aquatic animals and plants will be undertaken in ways which do not adversely affect biological diversity.*

In the proposal to Parliament on "A Rich Biodiversity" (se box II), government also notifies that a set of actions in order to address, in a precautionary way, the problem with alien species.

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

See Box III for status and trends of Environmental quality objectives 8, 11, 12, 13 & 14.

**Interim target 8.4: Releases of animals and plants**

Current conditions are sufficient to achieve the target within the defined time-frame.

The Centre for Biological Diversity has in 2004 delivered a detailed analysis of the consequences of implementing the CBD guidelines on IAS to the government of Sweden. In the proposal to Parliament on "A Rich Biodiversity" (se box II), government notifies that a set of actions in order to

address, in a precautionary way, the problem with alien species.

The issue of IAS is being addressed through a wide range of measures. For example, The Swedish Plant Protection Organization is charged with controlling the pathways of introduction of pests and pathogens which threaten agricultural crops and forest trees. The Swedish Environmental Protection Agency and the National Maritime Board are engaged with developing methods for preventing the introduction of invasive alien species through ballast water and hull fouling. The National Board of Fisheries works with preventing the introduction of pathogens and pests through the importation of water-living plants and animals.

The Swedish Government has given the Swedish Maritime Administration and the Swedish Environmental Protection Agency instructions to investigate the consequences of an implementation of the International Convention for the Control and Management of Ship´s Ballast Water and Sediments adopted by the International Maritime Organization (IMO) on 13 February 2004.

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

See Box III.

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

The responsibility for managing invasive alien species (IAS) is currently divided between at least ten separate government authorities. There is a clear lack of coordination between the fields of activities of these agencies. The Swedish legislation on IAS is scattered in very many different laws and regulations. In addition, many European Community directives and regulations are also applicable e. The strengths of the existing framework lie in the control of intentional introductions, whereas there is a clear weakness when it comes to unintentional introductions. Pathways of introduction needs more attention.

Another difficult area is the concept of risk analysis. Very few regulations call for such analyses, and the protocols applied are not well developed. The scientific basis for risk analysis still requires development, as well as the practical application of risk analysis procedures.

The burden of proof that there is no risk involed should rest with the person or company that applies for an import permit for an alien species, or is engaged in activities that may cause IAS to be accidentally introduced This is reflected in the CBD Guidelines, but not in reality.

The existing national, EC and global regulatory framework for IAS is focused on the protection of human health, the health of our livestock and crops, and economic interests. There is comparably less attention to the effects of IAS on wild organisms and natural ecosystems.

See also Question 45ff.

VII) Please provide any other relevant information.

**Box XIII.**

| **Target 6.2** | **Management plans in place for major alien species that threaten ecosystems, habitats or species** |
|---|---|
| I) National target: Has a national target been established corresponding to the global target above? | |
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |
| Please provide details below. | |

There is no such objective or target, but the Swedish Board of Agriculture, The Swedish Environmental Protection Agency and other governmental agencies are mandated by law to issue management regulations for invasive alien species. This has been done for a very restricted number of species, mainly plant pests. The need in Sweden for such management plans is at the moment clearly limited.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | X | |
| b) Inland water | | X | |
| c) Marine and coastal | | X | |
| d) Dry and subhumid land | | X | |
| e) Forest | | X | |
| f) Mountain | | X | |

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

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

Please provide details below.

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

See Box XII.

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

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

See Box XII.

VII) Please provide any other relevant information.

**Box XIV.**

| | |
|---|---|
| **Goal 7** | **Address challenges to biodiversity from climate change, and pollution.** |
| **Target 7.1** | **Maintain and enhance resilience of the components of biodiversity to adapt to climate change** |

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

Sweden has ratified the Kyoto Protocol, and a Swedish Climate Strategy has been adopted through a government bill. Sweden has declared the intention to reduce emissions of greenhouse gases by at least 4% between 1990 and 2010 (Interim target 1.1). There is however no target formulated addressing the resilience of organisms or ecosystems to climate change.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | **X** |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | |

Please provide details below.

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

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

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

VII) Please provide any other relevant information.

**Box XV.**

| **Target 7.2** | **Reduce pollution and its impacts on biodiversity** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | **X** |
| c) Yes, one or more specific national targets have been established | **X** |

Please provide details below.

See Box III.

**Environmental quality objective 2: Clean Air**

*The air must be clean enough not to represent a risk to human health or to animals, plants or cultural assets.*

**Environmental quality objective 3: Natural Acidification Only**

*The acidifying effects of deposition and land use must not exceed the limits that can be tolerated by soil and water. In addition, deposition of acidifying substances must not increase the rate of corrosion of technical materials or cultural artefacts and buildings.*

**Environmental quality objective 4: A Non-Toxic Environment**

*The environment must be free from man-made or extracted compounds and metals that represent a threat to human health or biological diversity.*

**Environmental quality objective 5: A Protective Ozone Layer**

*The ozone layer must be replenished so as to provide long-term protection against harmful UV radiation.*

**Environmental quality objective 6: A Safe Radiation Environment**

*Human health and biological diversity must be protected against the harmful effects of radiation in the external environment.*

**Environmental quality objective 7: Zero Eutrophication**

*Nutrient levels in soil and water must not be such that they adversely affect human health, the conditions for biological diversity or the possibility of varied use of land and water.*

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |

| | | | |
|---|---|---|---|
| f) Mountain | | **X** | |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 7.2:

Environmental quality objective 2: Clean Air

**Interim target 2.1: Sulphur dioxide**

*A level of sulphur dioxide of 5 µg/m3 as an annual mean will have been achieved in all municipalities by 2005.*

**Interim target 2.2: Nitrogen dioxide**

*Levels of nitrogen dioxide of 20 µg/m3 as an annual mean and 100 µg/m3 as an hourly mean will have been achieved in most places by 2010.*

**Interim target 2.3: Ground-level ozone**

*By 2010 concentrations of ground-level ozone will not exceed 120 µg/m3 as an 8-hour mean.*

**Interim target 2.4: Volatile organic compounds**

*By 2010 emissions in Sweden of volatile organic compounds (VOCs), excluding methane, will have been reduced to 241,000 tonnes.*

Environmental quality objective 3: Natural Acidification Only

**Interim target 3.3: Sulphur dioxide emissions**

*By 2010 emissions of sulphur dioxide to air in Sweden will have been reduced to 60,000 tonnes.*

**Interim target 3.4: Nitrogen oxide emissions**

*By 2010 emissions of nitrogen oxides to air in Sweden will have been reduced to 148,000 tonnes.*

Environmental quality objective 4: A Non-Toxic Environment

**Interim target 4.1: Data on health and environmental properties of chemical substances**

*By 2010 data will be available on the properties of all deliberately manufactured or extracted chemical substances handled on the market. For substances handled in larger volumes and for other substances which, for example after initial general tests, are assessed as being particularly dangerous, information on their properties will be available earlier than 2010. The same information requirements will apply to both new and existing substances. In addition, by 2020 data will as far as possible be available on the properties of all unintentionally produced and extracted chemical substances.*

**Interim target 4.2: Environmental and health information on products**

*By 2010 finished products will carry health and environmental information on any dangerous substances they contain.*

**Interim target 4.3: Phase-out of substances of very high concern**

*Newly manufactured finished products will as far as possible be free from*

- *carcinogenic, mutagenic and reprotoxic substances, by 2007, if the products are intended to be used in such a way that they will enter natural cycles;*
- *new organic substances that are persistent and bioaccumulating, as soon as possible, but no later than 2005;*

- *other organic substances that are very persistent and very bioaccumulative, by 2010;*
- *other organic substances that are persistent and bioaccumulative, by 2015;*
- *mercury by 2003, and cadmium and lead by 2010.*

*Nor will these substances be used in production processes unless the company can prove that human health and the environment will not be harmed. Already available finished products containing substances with the properties listed above, or mercury, cadmium or lead, will be handled in such a way that the substances in question are not released to the environment. This interim target applies to substances that are manmade or extracted from the natural environment. It also applies to substances giving rise to substances with the above properties, including those formed unintentionally.*

**Interim target 4.4: Continuous reduction of health and environmental risks of chemicals**

*Health and environmental risks associated with the manufacture and use of chemical substances will be reduced continuously up to 2010, as measured by indicators and ratios to be established by the competent authorities. Over the same period, the occurrence and use of chemical substances which impede recycling of materials will decrease. This target applies to substances not covered by interim target 3.*

**Interim target 4.5: Guideline values for environmental quality**

*By 2010 guideline values will be established by the competent authorities for at least 100 selected chemical substances not covered by interim target 3. These values will indicate the maximum concentrations to be permitted in the environment or to which humans may be exposed. The aim is that the guideline values will in the long term be adopted as environmental quality standards.*

Environmental quality objective 5: A Protective Ozone Layer

**Interim target 5.1: Emissions of ozone-depleting substances**

*By 2010 the great majority of emissions of ozonedepleting substances will have ceased.*

Environmental quality objective 6: A Safe Radiation Environment

**Interim target 6.1: Radioactive substances**

*By 2010 environmental concentrations of radioactive substances emitted from all human activities will be so low as not to represent a threat to human health or biological diversity. The additional individual dose to members of the public will be lower than 0.01 mSv per person per year from each individual operation.*

Environmental quality objective 7: Zero Eutrophication

**Interim target 7.4: Ammonia emissions**

*By 2010 emissions of ammonia in Sweden will have been reduced by at least 15% compared with 1995 levels, to 51,700 tonnes.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.7: Discharges of oil and chemicals**

*By 2010 discharges of oil and chemicals from ships will be minimized and reduced to a negligible level by stricter legislation and increased monitoring.*

Since 1998 successful efforts have been made in Sweden to cut emissions of nitrogen oxides (NOx) and sulphur oxides (SOx) from ship's emissions with a system of environmental differentiation of fairway dues. As of December 2004 the annual reduction of NOx is about 41 000 tonnes compared to conventional ships with no technological method to limit NOx emissions.

As from 19 May 2006 the Baltic Sea will be a SOx emission control area in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL 73/78). The sulphur content of fuel oil used on board ships in a SOx emission control area shall not exceed 1.5% m/m.

In Sweden the provisions in Regulation (EC) No 417/2002 on the accelerated phasing-in of double-hull or equivalent design requirements for single-hull oil tankers, as amended by Regulation (EC) No 1726/2003, are complied with.

According to (EC) Regulation No. 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compound on ships, organotin compounds which act as biocides in anti-fouling systems are not to be applied or reapplied on Swedish ships.

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

**Environmental quality objective 2: Clean Air**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Good progress has been made towards the interim targets under this objective. However, in a few places, including Stockholm and Göteborg, the target for nitrogen dioxide levels in air will be difficult to meet if planned measures are not carried out. Particulates in air are a major health concern. Action at both a local and a European level is urgently needed to get to grips with this problem. As long as particulate concentrations remain unacceptable from a health point of view, this environmental quality objective will not be achieved, even if satisfactory progress is made towards the interim targets.

**Interim target 2.1: Sulphur dioxide**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 2.2: Nitrogen dioxide**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 2.3: Ground-level ozone**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 2.4: Volatile organic compounds**

Current conditions are sufficient to achieve the target within the defined time-frame.

See Box XI for status and trends regarding Environmental quality objectives 3 & 4.

**Interim target 3.3: Sulphur dioxide emissions**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 3.4: Nitrogen oxide emissions**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 4.1: Data on health and environmental properties of chemical substances**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 4.2: Environmental and health information on products**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

It is unsatisfactory that EU regulations do not ensure users and consumers access to information on hazardous chemicals in finished products. Existing voluntary schemes are important, but do not provide full coverage in terms of either product groups or the substances on which information is required. This target will not be met on time unless vigorous additional action is taken.

**Interim target 4.3: Phase-out of substances of very high concern**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

The proposed EC criteria for defining substances of very high concern are in line with the definitions given in the target. However, wide-ranging exemptions could erode the effectiveness of the authorization system. The final details of the EC legislation and the way it is implemented will crucially determine to what extent the interim target can be achieved.
It is hard to assess the prospects of eliminating hazardous substances from newly manufactured products by the stated dates, but these deadlines could be difficult to meet. It will, for example, not be at all easy to find substitutes for lead accumulators in vehicles by 2010. Certain substances of very high concern have already been accepted for a ten-year period under the EC's Plant Protection Products Directive, and these will be difficult to prohibit in Sweden during that period.

**Interim target 4.4: Continuous reduction of health and environmental risks of chemicals**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

During 2003 decisions on pesticides were taken which could stand in the way of achieving this interim target. Under the EC Plant Protection Products Directive, paraquat, a herbicide that poses very serious health hazards, has been approved for continued use in the EU. Up to now, though, the industry has refrained from registering it in Sweden, and farmers do not want it back. In the absence of alternatives, the insecticide cypermethrin has been approved up to 2005 by the National Chemicals Inspectorate, to protect tree seedlings from pine weevils. Cypermethrin is toxic to aquatic organisms at concentrations far below those detectable under the environmental monitoring programme.

**Interim target 4.5: Guideline values for environmental quality**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Environmental quality objective 5: A Protective Ozone Layer**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

Thanks to international agreements to phase out ozonedepleting substances, adverse pressures on the ozone layer, which protects the earth from harmful ultraviolet radiation, have been reduced. Sweden has also made considerable progress in phasing out these substances. To achieve the interim target for emissions, however, further decisions are needed conceming the use and handling of ozone depleters, combined with an information campaign on exis ting and future bans. According to international scientists working for UNEP/WMO, we will not begin to see a recovery of the ozone layer until 2020 at the earliest.

**Interim target 5.1: Emissions of ozone-depleting substances**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Environmental quality objective 6: A Safe Radiation Environment**

The objective can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

We currently lack an overall picture of the radiation environment and its effects on people and natural ecosystems. Several types of activity that can give rise to radiation as an unintended side effect of the processes involved have been identified. It is important to establish where these activities are taking place and to investigate the radiation doses they produce. There has been a growing awareness in recent years of the need for a regulatory framework for the management and disposal of non-nuclear radioactive waste and 'orphan sources'. Another challenge is to build a safe permanent repository for spent nuclear fuel and other radio active waste. At the international level, work is now in progress to broaden the scope of radiological protection to include animals and plants.

Regarding exposure to electromagnetic fields, the research undertaken to date has not shown that base stations or mobile phones cause ill health. Further efforts in the areas of research, environmental monitoring and information are essential if we are to be able to assess and attain the target relating to electromagnetic fields. Exposure to ultraviolet radiation is a major risk factor for skin cancer. The amount of this radiation to which people are exposed d epends primarily on their outdoor recreational habits. Over the last ten years, the increase in skin cancer incidence has been less marked than before, but it is still too early to say whether this represents a trend break. If planned long-term measures are implemented, the assessment is that the interim target regarding skin cancer can be met.

**Interim target 6.1: Radioactive substances**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

See Box XI for status and trends regarding Environmental quality objective 7.

**Interim target 7.4: Ammonia emissions**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 10.7: Discharges of oil and chemicals**

Current conditions are sufficient to achieve the target within the defined time-frame.

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

In addition to indicators given in Box XI, the following are employed:

**Environmental quality objective 2: Clean Air**

Indicators employed in monitoring:

*Benzene in air*
*Energy use*
*NOx emissions*
*Sulphur dioxide emissions*
*Nitrogen dioxide in air*
*Ozone in air*
*Sulphur dioxide in air*
*Hydrocarbon emissions*

**Environmental quality objective 5: A Protective Ozone Layer**

Indicators employed in monitoring:

*Skin cancer - squamous cell carcinoma*
*UV radiation*
*Chlorine and bromine emissions*
*Skin cancer - malignant melanoma*

**Environmental quality objective 6: A Safe Radiation Environment**

Indicators employed in monitoring:

*Caesium-137 in milk*
*Energy use*
*Radon in drinking water*
*Radon in apartment buildings*
*Radon in schools*
*Radon in houses*
*Ambient radiation level*
*Skin cancer - malignant melanoma*
*Skin cancer - squamous cell carcinoma*

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

| VII) Please provide any other relevant information. |
|---|
| |

**Box XVI.**

| **Goal 8** | **Maintain capacity of ecosystems to deliver goods and services and support livelihoods.** |
|---|---|
| **Target 8.1** | **Capacity of ecosystems to deliver goods and services maintained** |

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | **X** |
| c) Yes, one or more specific national targets have been established | **X** |
| Please provide details below. | |

See Box III.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• The nutrient status of arable land is well-balanced, with a good soil structure and humus content, and pollutant levels are so low as not to affect the functioning of ecosystems and human health.<br>• Agricultural land is cultivated in such a way as to minimize adverse environmental impacts and favour biological diversity.<br>• The land is cultivated in such a way as to maintain its long-term productive capacity. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.*<br><br>**Environmental quality objective 11: Thriving Wetlands**<br>*The ecological and water-conserving function of wetlands in the landscape must be maintained and valuable wetlands preserved for the future.* |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.* |
| d) Dry and subhumid land | | **X** | |

| | | | |
|---|---|---|---|
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• The natural production capacity of forestland is preserved.<br>• The natural functions and processes of forest ecosystems are maintained.<br>• The forests' natural hydrology is protected. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Reindeer husbandry, tourism, hunting, fishing and other use of the mountains, as well as construction and other development, are carried on with regard for the areas' long-term productive capacity, biological diversity and natural, cultural and recreational assets. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | **X** |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 8.1:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.3: Water protection areas**

*By 2009 water supply plans, including water protection areas and protection regulations, will have been adopted for all public and large private surface water sources. Large surface water sources are defined as surface waters used for the abstraction of water and serving more than 50 persons or providing more than 10 m3 a day as an average.*

**Interim target 8.6: Programme of measures to achieve good surface water status**

*By 2009 a programme of measures as provided for in the EC Water Framework Directive will be established, specifying how good surface water status is to be achieved.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.8: Programmes of measures to achieve good surface water status**

*By 2009 programmes of measures as provided for in the EC Water Framework Directive will be established, specifying how good surface water status can be achieved.*

The National Board of Forestry has formulated so called "Forest Sector goals", where the issue is further specified in the form of interim targets. One target refers to the returning of wood ashes to forests were leaves and foilage has been removed for energy purposes. There is also focus on improving the knowledge of the status and functions of the forest soils in terms of chemical and physical properties.

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

See Box III for status and trends of Environmental quality objectives 8, 10, 11, 12, 13 & 14.

**Interim target 8.3: Water protection areas**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 8.6: Programme of measures to achieve good surface water status**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 10.8: Programmes of measures to achieve good surface water status**

Current conditions are sufficient to achieve the target within the defined time-frame.

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

See Box III.

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

It is difficult to formulate pertinent interim targets regarding ecosystem services, since the scientific basis is still not able to deliver clear recommendations on specific biodiversity parameters that are crucial for ecosystem functioning, especially in terms of number and identity of species. The complexity of natural ecosystems, and the long time-frames necessarily involved, complicate the issue.

VII) Please provide any other relevant information.

This is a key entry-point within Sweden's development cooperation, with clear linkages to poverty alleviation, minimizing vulnerability and improving local livelihoods.

**Box XVII.**

| **Target 8.2** | **Biological resources that support sustainable livelihoods, local food security and health care, especially of poor people maintained** |
|---|---|
| I) National target: Has a national target been established corresponding to the global target above? | |
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |
| Please provide details below. | |
| See Box III. | |

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• The land is cultivated in such a way as to maintain its long-term productive capacity. |
| b) Inland water | **X** | | **Environmental quality objective 8: Flourishing Lakes and Streams**<br>*Lakes and watercourses must be ecologically sustainable and their variety of habitats must be preserved. Natural productive capacity, biological diversity, cultural heritage assets and the ecological and water-conserving function of the landscape must be preserved, at the same time as recreational assets are safeguarded.* |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Consideration is given, in connection with fishing, shipping and other uses of seas and water areas, as well as construction and other development in coastal and archipelago areas, to the productive capacity, biological diversity, natural and cultural assets and outdoor recreation assets of the water areas. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the |

| | | | |
|---|---|---|---|
| | | | following:<br>• The natural production capacity of forestland is preserved. |
| f) Mountain | X | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.* |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | **X** |
| Please provide details below. | |
| | |

| IV) Please provide information on current status and trends in relation to this target. |
|---|
| See Box III for status and trends of Environmental quality objectives 8, 10, 12 & 13. |

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

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

| VII) Please provide any other relevant information. |
|---|
| |

**Box XVIII.**

| **Goal 9** | **Maintain socio-cultural diversity of indigenous and local communities.** |
|---|---|
| **Target 9.1** | **Protect traditional knowledge, innovations and practices** |

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | **X** |
| Please provide details below. | |
| See Box II and III.<br><br>The objectives and interim targets adopted are not directly aimed at traditional knowledge, innovations or practices per se. Instead they focus on physical cultural remains, such as buildings or | |

managed habitat types, which in turn may be the source of traditional knowledge.

Following a detailed analysis of Swedish implementation of CBD Article 8j, the Parliament of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity (see box II). In the proposal to Parliament on "A Rich Biodiversity", government also notifies that an national Action Program on Traditional Knowledge and Biodiversity should be elaborated.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | **X** | | **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• Biological, cultural and historical assets in the agricultural landscape that are the result of long traditional management are preserved or enhanced.<br>• The habitat and dispersal pathways of non-domesticated plant and animal species in agricultural land are protected. |
| b) Inland water | | **X** | |
| c) Marine and coastal | **X** | | **Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos**<br>*The North Sea and the Baltic Sea must have a sustainable productive capacity, and biological diversity must be preserved. Coasts and archipelagos must be characterized by a high degree of biological diversity and a wealth of recreational, natural and cultural assets. Industry, recreation and other utilization of the seas, coasts and archipelagos must be compatible with the promotion of sustainable development. Particularly valuable areas must be protected against encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• The natural beauty and natural and cultural assets of coastal and archipelago landscapes, biological diversity and variation are maintained by continuing prudent use.<br>• Buildings and built environments in coastal and archipelago landscapes that are particularly valuable are preserved and improved. |
| d) Dry and subhumid land | | **X** | |
| e) Forest | **X** | | **Environmental quality objective 12: Sustainable Forests**<br>*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.*<br>The outcomes within a generation should include the following:<br>• Care-demanding forests with valuable natural and cultural assets are managed in such a way as to preserve and enhance these assets.<br>• Cultural monuments and environments are protected.<br>• Importance is attached to forests as sources of nature experiences and recreation are taken into account. |
| f) Mountain | **X** | | **Environmental quality objective 14: A Magnificent Mountain Landscape**<br>*The pristine character of the mountain environment must be largely preserved, in terms of biological diversity, recreational value, and natural and cultural assets. Activities in mountain areas must respect these values and assets, with a view to promoting sustainable development. Particularly valuable areas must be protected from encroachment and other disturbance.*<br>The outcomes within a generation should include the following:<br>• Cultural heritage assets, in particular the Sami cultural heritage, is preserved and enhanced. |

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

| | |
|---|---|
| a) No | |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | **X** |

Please provide details below.

See Box III.

The following interim targets are most relevant to the CBD Target 9.1:

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.2: Cultural heritage and agricultural landscapes of coasts and archipelagos**

*By 2005 a strategy will have been adopted for the preservation and use of the cultural heritage and agricultural landscapes of coastal and archipelago areas.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.3: Protection of cultural heritage**

*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.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.3: Culturally significant landscape features**

*The number and extent of culturally significant landscape features that are managed will increase by*

*about 70% by 2010.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.4:**

*By 2010 the national programme for plant genetic resources will be fully developed and there will be sufficient numbers of individuals to ensure the long-term conservation of indigenous breeds of domestic animals in Sweden.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.6: Farm buildings of cultural heritage value**

*By 2005 a programme will have been prepared for the conservation of farm buildings of cultural heritage value.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.3: Natural and cultural assets**

*By 2010 long-term protection, including where necessary management and restoration measures, will have been provided for the majority of mountain areas with representative and significant natural and cultural assets.*

A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge.

Traditional knowledge is also to some extend included in Sweden's Rural Development Programme.

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

See Box III for status and trends of Environmental quality objectives 10, 12, 13 & 14.

**Interim target 10.2: Cultural heritage and agricultural landscapes of coasts and archipelagos**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 12.3: Protection of cultural heritage**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 13.3: Culturally significant landscape features**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 13.6: Farm buildings of cultural heritage value**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 14.3: Natural and cultural assets**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

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

See Box III.

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

See also Question 61ff.

VII) Please provide any other relevant information.

**Box XIX.**

| **Target 9.2** | **Protect the rights of indigenous and local communities over their traditional knowledge, innovations and practices, including their rights to benefit sharing** |
|---|---|

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

See information under Target 9.1.

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

| **Programme of work** | **Yes** | **No** | **Details** |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

| III) Has the global or national target been incorporated into relevant plans, programmes and strategies? | |
|---|---|
| a) No | **X** |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | |

Please provide details below.

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

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

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

VII) Please provide any other relevant information.

**Box XX.**

| | |
|---|---|
| **Goal 10** | **Ensure the fair and equitable sharing of benefits arising out of the use of genetic resources.** |
| **Target 10.1** | **All transfers of genetic resources are in line with the Convention on Biological Diversity, the International Treaty on Plant Genetic Resources for Food and Agriculture and other applicable agreements** |

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

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

| | |
|---|---|
| a) No | **X** |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | |

Please provide details below.

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

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

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

VII) Please provide any other relevant information.

**Box XXI.**

| **Target 10.2** | **Benefits arising from the commercial and other utilization of genetic resources shared with the countries providing such resources** |
|---|---|

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

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

| **Programme of work** | **Yes** | **No** | **Details** |
|---|---|---|---|
| a) Agricultural | | **X** | |
| b) Inland water | | **X** | |
| c) Marine and coastal | | **X** | |
| d) Dry and subhumid land | | **X** | |
| e) Forest | | **X** | |
| f) Mountain | | **X** | |

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

| | |
|---|---|
| a) No | **X** |
| b) Yes, into national biodiversity strategy and action plan | |
| c) Yes, into sectoral strategies, plans and programmes | |

Please provide details below.

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

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

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

VII) Please provide any other relevant information.

**Box XXII.**

| | |
|---|---|
| **Goal 11** | **Parties have improved financial, human, scientific, technical and technological capacity to implement the Convention.** |
| **Target 11.1** | **New and additional financial resources are transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with Article 20** |

I) National target: Has a national target been established corresponding to the global target above?

| | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

Please provide details below.

There is no financial target (such as % of ODA etc) -or "Biodiversity budget" - related specifically to biodiversity-funding to developing countries. Support to biodiversity-relevant initiatives and activities form part of the overall support. Environmental sustainability is also a key aspect overrall within Swedish development Cooperation. Direct and indirect support to biodiversity-related activities is hence substantial – both through funds channelled through the Swedish International development Cooperation Agency (Sida), and through funds channelled through Ministry of Foreign Affairs (such as Sweden´s contribution to the Global Environment Facility). Support – e g for developing country participation in CBD-meetings – is provided through the Ministry for Sustainable Development.

**Regarding the broader policy framework:**

- Biodiversity aspects (e.g. ABS – with focus on local indigenous and community rights) are explicitly covered within Sweden's policy for global development.
- Some reference to international commitments, and development cooperation, within the new Environmental quality objective for biodiversity under consideration (e.g. highlighting the importance of addressing biodiversity aspects within bilateral country strategies).
- Sweden's first Millenium Development Goals report addresses biodiversity in a special section.
- Sida has developed (1998) an overall policy on biodiversity ("Sida and the CBD"), and a number of issue-papers (on e.g. IPRs, biosafety/GMOs etc.)

**Key points of departure and priorities for Sida's biodiversity related work:**

- Making strong linkages to poverty alleviation and local livelihoods (and the MDGs). Links to health, vulnerability, food security etc.
- Explicit reference to 2010-target.
- Focus on sustainable management and equity aspects (as linked to livelihoods and poverty alleviation of poor and local communities) – and role of local communities and indigenous peoples in managing biological resources.
- Consequently strong focus on sustainable use within managed landscapes. Acknowledging importance of ecosystem approach and role of ecosystem services.

**Tools, methods and strategies:**

- Strong focus on integration/mainstreaming in NRM-programmes.
- Strong focus on "up-streaming" planning through including biodiversity aspects in policies and strategies. Special attention given to addressing biological resources and their importance for poverty alleviation in development of Country Strategies.
- Strong focus on EIAs a mandatory tool for all supported development initiatives (EIA guidelines include biodiversity assessments).
- Strong focus on supporting civil society participation (NGOs, IPs, etc) in key international meetings and events
- Support also provided to projects/programmes with biodiversity objectives and/or components,

e.g. through NGOs like IUCN and WWF, to research (e.g. CGIAR and others) and to strategic smaller initiatives focused on methods- and policy development for equitable and sustainable management of natural resources.

- Direct participation in important process (e.g concerning genetic resources and other processes)
- Support very seldom directly geared to direct implementation per se of a certain CBD work programme and/or guideline – but may often be in line with them. Most projects/programmes address a number of relevant aspects.

In 2003 a new initiative - the Swedish International Biodiversity programme (SwedBio) - was initiated by Sida, based at the Swedish Biodiversity Centre. The main work of SwedBio is to promote a more proactive and strategic incorporation of and work with biodiversity issues from a livelihoods perspective within Swedish development cooperation through

a) acting as a help-desk to Sida and providing assistance and comments on programmes and policies/strategies (eg country strategies)

b) financially supporting small and strategic biodiversity projects (including civil society participation in international meetings)

c) participating in international processes and methods development (eg. on development of tools for linking biodiversity and the Millenium Development Goals, inclusion of biodiversity aspects within PRSPs etc).

See also Question 138.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | X | |
| b) Inland water | | X | |
| c) Marine and coastal | | X | |
| d) Dry and subhumid land | | X | |
| e) Forest | | X | |
| f) Mountain | | X | |

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

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

Please provide details below.

Included in several Sida-policies, and the Swedish Policy on Global development.

The objectives are not specified as targets for financial transfers, but specify issues to focus on.

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

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

| VI) Please provide information on challenges in implementation of this target. |
|---|
| The challenges can be split into two main categories: a) challenges in developing countries themselves, and b) challenges within Sweden regarding increasing the interest, understanding and commitment for support to biodiversity-related issues in developing countries.<br><br>We note that challenges in developing countries are multifold and also vary from country to country. We also note that the CBD (COP6, under the Strategic Plan) agreed on an overall summary of the main challenges. We here wish to specifically high-light the role of governance failures, lack of information and awareness on the value of biodiversity to economic growth and poverty alleviation (including lack of valuation of ecosystem services) , and the role of perverse incentive systems. Lack of biological knowledge, including the fact that most components of biodiversity to a large extent still are not known well enough, is another challenge.<br><br>Within Swedish development cooperation a major challenge is to increase understanding and awareness about the key role biodiversity plays for poverty alleviation, growth and local livelihood, and to further demonstrate the importance of sustainable management of biodiversity to the key goals of Swedish development cooperation (poverty alleviation and equity/human rights). It thus remain to further integrate biodiversity better in the key policy and strategy planning framework of Sida, such as country strategies, sector policies etc, as well as to increase capacity and competence to utilise and follow existing guidelines (such as EIA guidelines, guidelines for Strategic Environment Analysis etc). |

| VII) Please provide any other relevant information. |
|---|
| |

**Box XXIII.**

| **Target 11.2** | **Technology is transferred to developing country Parties, to allow for the effective implementation of their commitments under the Convention, in accordance with its Article 20, paragraph 4** |
|---|---|

| I) National target: Has a national target been established corresponding to the global target above? | |
|---|---|
| a) No | **X** |
| b) Yes, the same as the global target | |
| c) Yes, one or more specific national targets have been established | |

| Please provide details below. |
|---|
| No specific targets have been formulated for technology transfer to developing countries (such as number of individuals to be trained, type of technology to be transferred etc). However, the broader - and more common - concept of capacity building is a corner stone of Swedish development cooperation, and all support – including supported biodiversity-related initiatives – strongly address the issues of capacity building. If technology transfer is interpreted in a more narrow sense –i e as transfer of technologies regarding genetic engineering and biotechnology - examples of Swedish support include (but is not limited to) e.g. the BioEARN programme in Eastern Africa |

See also Box XXII.

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

| Programme of work | Yes | No | Details |
|---|---|---|---|
| a) Agricultural | | X | |
| b) Inland water | | X | |
| c) Marine and coastal | | X | |
| d) Dry and subhumid land | | X | |
| e) Forest | | X | |
| f) Mountain | | X | |

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

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

Please provide details below.

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

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

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

VII) Please provide any other relevant information.

## Global Strategy for Plant Conservation (GSPC)

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

**Box XXIV.**

| **Target 1. A widely accessible working list of known plant species, as a step towards a complete world flora.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| The Swedish Species Information Center (ArtDatabanken) has been commissioned by the government to run the "Swedish Taxonomy Initiative". This project contains the development of identification keys for all Swedish multi-cellular organisms. The project is designed to run for 20 years and will result in the production of "The Encyclopedia Swedish Flora and Fauna" - a series of identification handbooks with keys to the Swedish plants and animal species. The Swedish species list will contribute to the complete world flora. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| The Swedish Research Council has assigned the task to the Swedish Museum of Natural History to act as the Swedish node to the International GBIF, and thereby being a focal point for Swedish information on the world's biodiversity. The Swedish secretariat began its work in January 2003, to make an inventory of the collections of plants and animals, as well as to coordinate and assist with the catalogue and digitizing work of the collections within Sweden. GBIF will contain complete authority files on species names, and hence make such a working list widely accessible. | |
| III) Current status (please indicate current status related to this target) | |
| The work at the Swedish Species Information Center and at the Swedish Museum of Natural History has been initiated. | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| | |
| VI) Constraints to achieving progress towards the target | |

| |
|---|
| A massive global taxonomic effort to produce a global list of plant (and animal) species names needs to be undertaken. Preferably this should be done in close cooperation with Catalogue of Life and GBIF |
| VII) Any other relevant information |
| |

**Box XXV.**

| **Target 2. A preliminary assessment of the conservation status of all known plant species, at national, regional and international levels.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| The Environmental Protection Agency has commissioned the Swedish Species Information Center to produce and keep a national red-list of threatened species. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| See above. | |
| III) Current status (please indicate current status related to this target) | |
| A national red-list, elaborated according to the IUCN system, is published every fifth year, the latest was launched in May 2005. This is based upon a large database on the occurrence and ecology of species, combined with information on status and trends for forests, grasslands etc. The assessments are performed by a network of more than 100 experts on the different evaluated organism groups. Alla Swedish vascular plants have been assessed. | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| Vascular plants are monitored by a network of volunteers around the country, visiting more than 3 000 sites on a yearly basis. The information is coordinated by the Swedish Species Information Center. | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| The target is met. | |
| VI) Constraints to achieving progress towards the target | |
| | |
| VII) Any other relevant information | |

**Box XXVI.**

| **Target 3. Development of models with protocols for plant conservation and sustainable use, based on research and practical experience.** | |
|---|---|
| I) Has your country established national target co rresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| See also Box V. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |

The following interim targets are most relevant to the GSPC Target 3:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.5: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species and fish stocks that are in need of targeted measures.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.3: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened marine species and fish stocks that are in need of targeted measures.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.5: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.4: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.5: Action programmes for threatened species**

*By 2006 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.4: Action programmes for threatened species**

*By 2005 action programmes will have been prepared and introduced for threatened species that are in need of targeted measures.*

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

**Interim target 8.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 10.3: Action programmes for threatened species**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 11.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 12.4: Action programmes for threatened species**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.5: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.4: Action programmes for threatened species**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) |
|---|
| Action programs has been or are being developed for many of the threatened plant species. This is a part of the assignment by the government to the Swedish Environmental Protection Agency to produce action programs for threatened species of fungi, plants and animals in collaboration with the Swedish Species Information Center. |

| V) Progress made towards target (please specify indicators used to monitor progress towards the target) |
|---|
| See above. |

| VI) Constraints to achieving progress towards the target |
|---|
| |

| VII) Any other relevant information |
|---|
| |

**Box XXVII.**

| **Target 4. At least ten percent of each of the world's ecological regions effectively conserved.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| See Box III. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |

| | |
|---|---|
| b) No | |
| Please specify | |
| See Box III. | |
| III) Current status (please indicate current status related to this target) | |
| See Box III. | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| See Box III. | |
| VI) Constraints to achieving progress towards the target | |
| | |
| VII) Any other relevant information | |
| | |

**Box XXVIII.**

| **Target 5. Protection of fifty percent of the most important areas for plant diversity assured.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| There is no objective or target formulated as the GSPC Target 5. Sweden has not identified important areas for plant diversity per se. However, the Environmental quality objectives, and several interim targets, call for the protection of areas of high conservation value.<br><br>The implementation of the EC Habitats Directive, especially provisions on Natura 2000, is relevant in this context. About 4000 sites have been designated to the ecological network Natura 2000. Several of these sites have been selected due to plant species listed in annex 2 to that Directive. More information: www.naturvardsverket.se .<br><br>See also Box IV. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |

The following interim targets are most relevant to the GSPC Target 5:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.1: Protection of natural and cultural environments**

*By 2005 the competent authorities will have identified and drawn up action programmes for natural and cultural environments, in or in the vicinity of lakes or streams, that are of particularly high conservation value and require long-term protection. By 2010 long-term protection will be provided for at least half of these environments.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.1: Marine environments of high conservation value**

*By 2010 long-term protection will be provided for at least 50% of marine environments of high conservation value and at least 70% of coastal and archipelago areas with significant natural and cultural assets. By 2005 another five marine areas will be protected as reserves, and the competent authorities will have decided which other areas in the marine environment are in need of long-term protection.*

**Interim target 11.2: Mire protection plan**

*By 2010 long-term protection will be provided for all the wetland areas listed in the Mire Protection Plan for Sweden.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.1: Long-term protection of forest land**

*A further 900,000 hectares of forest land of high conservation value will be excluded from forest production by the year 2010.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.1: Meadow and pasture land**

*By 2010 all meadow and pasture land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and the area of managed pasture land of the most endangered types will increase by at least 13,000 hectares by 2010.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.3: Natural and cultural assets**

*By 2010 long-term protection, including where necessary management and restoration measures, will have been provided for the majority of mountain areas with representative and significant natural and cultural assets.*

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

**Interim target 8.1: Protection of natural and cultural environments**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 10.1: Marine environments of high conservation value**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 11.2: Mire protection plan**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 12.1: Long-term protection of forest land**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

To meet the target, funds to purchase or pay compensation for around 37,000 ha of forest land will be needed every year up to and including 2010. For 2004, the budget for land purchase and compensation amounts to SEK 633 million, which is sufficient for 15,000–20,000 ha of forest land. This is half the required level of funding. It could therefore be difficult to achieve the target in full by 2010 and, at the same time, meet the need for nature reserves in different regions. As well as adequate funds, a key factor in attaining the target for nature reserves is a general strengthening of county administrative boards' organizational resources for reserve designation and an increase in the number of decisions.

As for voluntary undertakings, the situation looks relatively promising. The area of voluntary set-aside is currently estimated to approximately 1,000,000 ha, which is a larger area than stipulated by the interim target. The forest certification schemes and the green forest management plans are the main driving forces. However, the permanence and quality of many of these undertakings is uncertain, and further monitoring is necessary.

**Interim target 13.1: Meadow and pasture land**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required. The area of meadows and semi-natural pasture managed according to conservation criteria has increased.

**Interim target 14.3: Natural and cultural assets**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

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

Sweden, as a member state of the European Union, contributes to the Natura 2000 network. See below.

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

There is significant progress towards the Swedish targets on protected areas, and a large number of sites, corresponding to very large areas of land, now has effective legal protection. There has however been no assessment of whether this achievement corresponds to the GSPC Target 5, in terms of 50% of important areas protected.

The European Union network Natura 2000 is an important tool for the protection of threatened habitats and species. Two EC Directives, on European bird species, and on threatened species and habitats, list all species (about 900) and associated habitats (170 different) that need community wide attention. Each member country is obliged to protect a fair amount of such habitats, and to implement measures to ensure a favourable conservation status. In Sweden the Natura 2000 network includes close to 4000 areas, measuring a total of 6.4 million ha.

VI) Constraints to achieving progress towards the target

| |
|---|
| VII) Any other relevant information |
| |

**Box XXIX.**

| **Target 6. At least thirty percent of production lands managed consistent with the conservation of plant diversity.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| Several Environmental quality objectives address the issue of sustainable use of forests, mountains and agricultural land (see Box VIII). In production forests e.g. the conservation and production objectives have been stated to be of equal importance. The majority of the biological diversity will exist in production forests, complemented by protected areas. This is a highly ambitious target, and in practice it would mean that 100% of production forests would be managed consistent with the conservation of plant diversity. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |

The following interim targets are most relevant to the GSPC Target 6:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.2: Restoration of rivers and streams**

*By 2005 the competent authorities will have identified and drawn up action programmes for the restoration of Swedish rivers and streams of high conservation value or with the potential to acquire high conservation value following remediation. By 2010 at least 25% of valuable and potentially valuable rivers and streams will have been restored.*

Environmental quality objective 11: Thriving Wetlands

**Interim target 11.4: Wetlands on agricultural land**

*At least 12,000 hectares of wetlands and ponds will be established or restored on agricultural land by 2010.*

Environmental quality objective 12: Sustainable Forests

**Interim target 12.2: Enhanced biological diversity**

*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:*

- *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.*

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.1: Meadow and pasture land**

*By 2010 all meadow and pasture land will be preserved and managed in such a way as to preserve its value. The area of traditionally managed meadow land will increase by at least 5,000 hectares and the area of managed pasture land of the most endangered types will increase by at least 13,000 hectares by 2010.*

**Interim target 13.2: Small-scale habitats**

*Small-scale habitats on farmland will be preserved to at least the same extent as today throughout the country. By 2005 a strategy will have been adopted to increase the number of such habitats on the agricultural plains of Sweden.*

**Interim target 13.3: Culturally significant landscape features**

*The number and extent of culturally significant landscape features that are managed will increase by about 70% by 2010.*

Environmental quality objective 14: A Magnificent Mountain Landscape

**Interim target 14.1: Damage to soil and vegetation**

*By 2010 damage to soil and vegetation caused by human activities will be negligible.*

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

**Interim target 8.2: Restoration of rivers and streams**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 11.4: Wetlands on agricultural land**

The target will be very difficult to achieve to a sufficient degree within the defined time-frame.

**Interim target 12.2: Enhanced biological diversity**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.1: Meadow and pasture land**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required. The area of meadows and semi-natural pasture managed according to conservation criteria has increased. Management and restoring of meadows and pastured are primarily funded under the Sweden's Rural Development Programme established under the EU Common Agricultural Policy.

**Interim target 13.2: Small-scale habitats**

Current conditions are sufficient to achieve the target within the defined time-frame.

**Interim target 13.3: Culturally significant landscape features**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

**Interim target 14.1: Damage to soil and vegetation**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) |
|---|
| The two national certification schemes/standards (FSC and PEFC) also contribute to sustainable mangement of the forest in Sweden. This is a voluntary measure among forest owners in Sweden. |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) |
| |
| VI) Constraints to achieving progress towards the target |
| |
| VII) Any other relevant information |
| |

**Box XXX.**

| **Target 7. Sixty percent of the world's threatened species conserved *In-situ*.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| Several Environmental quality objectives address the issue of species conservation in situ (see Box V). The implicit objective is that all indigenous non-domesticated species shall be conserved in situ. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |

| | |
|---|---|
| a) Yes | **X** |
| b) No | |

| Please specify |
|---|
| See Box V |

| III) Current status (please indicate current status related to this target) |
|---|
| See Box V |

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

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

| VI) Constraints to achieving progress towards the target |
|---|
| |

| VII) Any other relevant information |
|---|
| |

**Box XXXI.**

| **Target 8. Sixty percent of threatened plant species in accessible *Ex-situ* collections, preferably in the country of origin, and 10 percent of them included in recovery and restoration programmes.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| No such target is established regarding Swedish indigenous wild plants, as the main strategy to use in situ approaches is deemed sufficient for the great majority of species. There is no target regarding threatened species from other countries, but action is being taken by botanic gardens. Domesticated plants in need of ex situ care have been addressed in one specific interim target.<br><br>See also Box VII. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | **X** |
| Please specify | |

The following interim target is most relevant to the GSPC Target 8:

Environmental quality objective 13: A Varied Agricultural Landscape

**Interim target 13.4: Plant genetic resources and indigenous breeds**

*By 2010 the national programme for plant genetic resources will be fully developed and there will be sufficient numbers of individuals to ensure the long-term conservation of indigenous breeds of domestic animals in Sweden.*

The botanic gardens in Sweden have declared their ambition to take part in the GSPC target 8 and 14, where they can be considered to be important actors. As a start, an inventory of all globally red-listed taxa in cultivation in Uppsala is undertaken. The botanic gardens will meet early June 2005 to discuss issues of relevance to GSPC. Already 379 gardens in 79 countries have signed the International Agenda for Botanic Gardens in Conservation.

Generally, the botanic gardens have not taken any active measures to conserve ex situ or assess status in cultivation for species that are only nationally red-listed. Several species on the national red-list are in cultivation, mainly for educational purposes.

Sweden through its development cooperation supports several large gene bank programs (South Africa, Eastern Africa, Balkans etc).

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

**Interim target 13.4: Plant genetic resources and indigenous breeds**

The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.

A national programme for plant genetic resources (POM) is being implemented. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species.

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

For globally red-listed species, Uppsala university botanic garden takes responsibility for the genus Saintpaulia, of which the collection is probably the most important in the world, together with Helsinki. A conservation program SAVES, saving African violets ex situ, has recently been started, centered in Helsinki.

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

VI) Constraints to achieving progress towards the target

A major obstacle in assessing what threatened species are in cultivation is that there is no updated IUCN list for most plant genera, and the 1997 version has an accuracy of less than 20%, i.e. those that are listed are not threatened, and those that are threatened are not listed.

VII) Any other relevant information

**Box XXXII.**

| **Target 9. Seventy percent of the genetic diversity of crops and other major socio-economically valuable plant species conserved, and associated indigenous and local knowledge maintained.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| **Environmental quality objective 13: A Varied Agricultural Landscape**<br>*The value of the farmed landscape and agricultural land for biological production and food production must be protected, at the same time as biological diversity and cultural heritage assets are preserved and strengthened.*<br>The outcomes within a generation should include the following:<br>• The genetic variation in domesticated animals and plants is preserved. Cultivated plants are preserved to the extent possible in their historical locations. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| The following interim target is most relevant to the GSPC Target 8:<br><br>Environmental quality objective 13: A Varied Agricultural Landscape<br>**Interim target 13.4: Plant genetic resources and indigenous breeds**<br>*By 2010 the national programme for plant genetic resources will be fully developed and there will be sufficient numbers of individuals to ensure the long-term conservation of indigenous breeds of domestic animals in Sweden.* | |
| III) Current status (please indicate current status related to this target) | |
| **Interim target 13.4: Plant genetic resources and indigenous breeds**<br>The target can be achieved to a sufficient degree within the defined time-frame, but further measures will be required.<br>A national programme for plant genetic resources (POM) is being implemented. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species. | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| | |
| VI) Constraints to achieving progress towards the target | |

| |
|---|
| |
| VII) Any other relevant information |
| |

**Box XXXIII.**

| **Target 10. Management plans in place for at least 100 major alien species that threaten plants, plant communities and associated habitats and ecosystems.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| There is no such objective or target, but the Swedish Board of Agriculture is mandated by law to issue management regulations for invasive alien species. This has been done for a very restricted number of species, mainly plant pests. The need in Sweden for such management plans is at the moment limited. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| In the Bill to Parliament on the environmental objectives (see box II) the government notifies a package of actions with the aim to address the issue of alien species. The Swedish EPA (Naturvardsverket) will be commissioned to coordinate this work. | |
| III) Current status (please indicate current status related to this target) | |
| | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| | |
| VI) Constraints to achieving progress towards the target | |
| | |
| VII) Any other relevant information | |
| | |

**Box XXXIV.**

| **Target 11. No species of wild flora endangered by international trade.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |

| | |
|---|---|
| b) No | **X** |
| Please specify | |
| As a party to CITES, Sweden relies on the convention in order to achieve the target. According to the CITES Secretariat no listed taxa has been exterminated due to trade after it has been listed. There is however still demand on the market for living and dead specimens of threatened fauna and flora.<br>The government of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity. Target 11 may be accepted as an interim target in that process. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| | |
| III) Current status (please indicate current status related to this target) | |
| | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| | |
| VI) Constraints to achieving progress towards the target | |
| | |
| VII) Any other relevant information | |
| | |

**Box XXXV.**

| | |
|---|---|
| **Target 12. Thirty percent of plant-based products derived from sources that are sustainably managed.** | |
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| See Box VII and XVII. | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | |
| b) No | **X** |

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

**Box XXXVI.**

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

| |
|---|
| VII) Any other relevant information |
| |

**Box XXXVII.**

| **Target 14. The importance of plant diversity and the need for its conservation incorporated into communication, educational and public-awareness programmes.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| | |
| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
| a) Yes | **X** |
| b) No | |
| Please specify | |
| There are information and extension programmes for farmers within Sweden's Rural Development Programme.<br>A national programme for plant genetic resources (POM) is being implemented. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The rationale and results of such activities are also communicated to the general audience. | |
| III) Current status (please indicate current status related to this target) | |
| | |
| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) | |
| | |
| V) Progress made towards target (please specify indicators used to monitor progress towards the target) | |
| | |
| VI) Constraints to achieving progress towards the target | |
| | |
| VII) Any other relevant information | |
| | |

**Box XXXVIII.**

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

**Box XXXIX.**

| **Target 16. Networks for plant conservation activities established or strengthened at national, regional and international levels.** | |
|---|---|
| I) Has your country established national target corresponding to the above global target? | |
| a) Yes | |
| b) No | **X** |
| Please specify | |
| There is no national target, but activities at botanic gardens, academic institutions and the Swedish Species Information Center achieve Target 16. | |

| II) Has your country incorporated the above global or national target into relevant plans, programmes and strategies? | |
|---|---|
| a) Yes | |
| b) No | **X** |

| Please specify |
|---|
| |

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

| IV) Measures taken to achieve target (please indicate activities, legislative measures and other steps taken with a view to achieve the target) |
|---|
| The Swedish Species Information Center has established a national network of experts on threatened species. The director of the Swedish Species Information Center, is also the president of the European network for the protection of vascular plants, the Planta Europa. |

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

| VI) Constraints to achieving progress towards the target |
|---|
| |

| VII) Any other relevant information |
|---|
| |

**Box XL.**

| Please elaborate below on the implementation of this strategy specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Ecosystem Approach

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

| **3. ?** [1] Is your country applying the ecosystem approach, taking into account the principles and guidance contained in the annex to decision V/6? (decision V/6) | |
|---|---|
| a) No | |
| b) No, but application is under consideration | |
| c) Yes, some aspects are being applied | **X** |
| d) Yes, substantially implemented | |

| **4. ?** Is your country developing practical expressions of the ecosystem approach for national policies and legislation and for implementation activities, with adaptation to local, national, and regional conditions? (decision V/6) | |
|---|---|
| a) No | |
| b) No, but development is under consideration | |
| c) Yes, practical expressions have been developed for applying some principles of the ecosystem approach | **X** |
| d) Yes, practical expressions have been developed for applying most principles of the ecosystem approach | |

| **5.** Is your country strengthening capacities for the application of the ecosystem approach, and providing technical and financial support for capacity-building to apply the ecosystem approach? (decision V/6) | |
|---|---|
| a) No | |
| b) Yes, within the country | |
| c) Yes, including providing support to other Parties | **X** |

| **6. ?** Has your country promoted regional cooperation in applying the ecosystem approach across national borders? (decision V/6) | |
|---|---|
| a) No | |

[1] Please note that all the questions marked with **?** have been previously covered in the second national reports and some thematic reports.

| | |
|---|---|
| b) Yes, informal cooperation (please provide details below) | |
| c) Yes, formal cooperation (please provide details below) | **X** |

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

Regional cooperation with the Nordic countries, e.g. regarding the management of the Baltic Sea.

European cooperation within the EU, e.g. regarding the Natura 2000 network and the Water Directive.

Support to international NGOs like IUCN, WWF.

Support through UNEP, WB, regional environmental work through e.g AsDB.

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

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

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

Support to e.g IUCN, UNEP, GEF, the CGIAR-system.

**8.** Is your country creating an enabling environment for the implementation of the ecosystem approach, including through development of appropriate institutional frameworks? (decision VII/11)

| | |
|---|---|
| a) No | |
| b) No, but relevant policies and programmes are under development | |
| c) Yes, some policies and programmes are in place (please provide details below) | **X** |
| d) Yes, comprehensive policies and programmes are in place (please provide details below) | |

Further comments on the creation of an enabling environment for the implementation of the ecosystem approach.

The Ecosystem Approach is a corner stone in Swedish Environmental policy and the EA is highlighted in the recent bill to Parliament (see box II), especially in the Strategy for management of land, water and built environment and under the proposed new objective “A Rich Biodiversity”.

# C. ARTICLES OF THE CONVENTION

## Article 5 – Cooperation

| **9.** Is your country actively cooperating with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biological diversity? | |
|---|---|
| a) No | |
| b) Yes, bilateral cooperation (please give details below) | **X** |
| c) Yes, multilateral cooperation (please give details below) | **X** |
| d) Yes, regional and/or subregional cooperation (please give details below) | **X** |
| e) Yes, other forms of cooperation (please give details below) | |

Further comments on cooperation with other Parties in respect of areas beyond national jurisdiction for the conservation and sustainable use of biodiversity.

c) Sweden is party to a range of international agreements, e.g. CCAMLR, IWC and CMS, that address areas beyond national jurisdiction, and biological resources shared between countries. Sweden is also party to UNCLOS where the issue of biodiversity in the High Seas is addressed.

Sweden is also member of the International Maritime Organization (IMO) and is represented at IMO:s Marine Environment Protection Committee (MEPC). At an IMO conference held in October 2001 the International Convention on the Control of Harmful Anti-Fouling systems on Ships was adopted. The Anti-fouling Convention was ratified by Sweden on 10 December 2003. In February 2004 the International Convention for the Control and Management of Ship´s Ballast Water and Sediments was adopted. Neither of the conventions has entered into force yet.

d) Sweden is member of the Helsinki Commission (HELCOM) and the Swedish Maritime Administration is involved in the work done by HELCOM MARITIME when it comes to e.g. reducing emissions to air from ships and introductions of aliens species with ship's ballast water. A draft recommendation on ballast water is being developed within HELCOM MARITIME. The Swedish Maritime Administration is also involved in the work, led by Finland, in drafting a Ballast Water Strategy for the Baltic Sea.

The Swedish Maritime Administration is also involved in the development of a Draft North Sea strategy on the control of harmful antifouling systems on ships - work done within the Committee of North Sea Senior Officials (CONSSO) Issue Group on Sustainable Shipping (IGSS). The Swedish Maritime Administration has also financed a Scoping Study for the implementation of a Regional Management Strategy for Ballast Water Management in the North Sea/North West Europe that most likely will be ready in May 2005.

Furthermore, HELCOM is producing a list of threatened species in the Baltic Sea. Sweden is also lead country in the development of EcoQO´s based on coastal fish monitoring in the HELCOM area.

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

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

A range of existing mechanisms and networks have been utilized, and further developed, to meet the needs of CBD implementaion work. A few examples are given below.

The EU biodiversity strategy, adopted in 1998, has been reviewed during 2003-04, with the support of Swedish experts, resulting in a 2010 delivery plan.

The European Union network Natura 2000 is an important tool for the protection of threatened habitats and species. Two EC Directives, the Birds Directive on European bird species, and the Habitats Directive on threatened species and habitats, list all species (about 900) and associated habitats (170 different) that need community wide attention. Each member state is obliged to protect a fair amount of such habitats, and to implement measures to ensure a favourable conservation status. In Sweden the Natura 2000 network includes close to 4000 sites, measuring a total of 6.4 million ha.

Nordic Council of Ministers: Nordic Environmental action plan 2005-2008 with focus on "Nature, landscape, cultural environment, recreational and health aspects and marine issues", including operationalisation of the 2010 target within the Nordic region.

Swedish international development cooperation supports CBD implementation:

- Regional and or global support to biodiversity targeted projects, through Sida, in the range of 400 mSEK/year. Includes global support and regional.
- Biodiversity aspects increasingly addressed in bilateral sectoral programmes (marine/coastal, agriculture, forestry, rural development etc.
- Additional support to civil society (NGOs, action research institutes) in the South working with sustainable and equitable management and access to biodiversity.
- Substantial multilateral support (e.g GEF).

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

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

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

There is an initiative to increase policy coherence within the Swedish global policy framework – including the MEAs. E.g. the national Environmental quality objectives (see Box III) consider, in one and the same parliamentary bill, the main targets of several MEAs in a coherent manner. There is also explicit reference to MEAs in most country-level and regional work (e.g. country and regional strategies) for development cooperation.

Given the large number of international agreements and processes, such integration is necessary but increasingly complicated. In many cases the harmonization work means straightforward administrative coordination, e.g. in the implementation of CBD and CMS. In other cases incongruity presents real problems in harmonization attempts, e.g. between CBD and other processes concerned with access and benefit sharing issues involving genetic resources, or between the CBD invasive alien species guidelines and WTO rules on free trade.

Sweden also participates in extensive cooperation within the European Union,

**Box XLI.**

| Please elaborate below on the implementation of this article specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

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

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

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

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

Following the Swedish ratification of the CBD a national strategy was passed by the parliament, and sectoral action plans were produced by the Swedish Environmental Protection Agency, the National Board of Forestry, the Swedish Board of Agriculture, the National Board of Housing, Building and Planning, and the National Board of Fisheries.

The biodiversity strategy and action plans have now been superseded by the 15 Environmental quality objectives, which have been reviewed in 2004, and by more specific strategies and action plans within and across sectors. The objectives contain interim targets that outline actions within the various sectors (sectoral responsibility for conservation and sustainable use of biodiversity). The government of Sweden is now considering a new Environmental quality objective, explicitly aimed at the conservation and sustainable use of biological diversity, linking all the existing 15 objectives.

Sweden's Rural Development Programme is important for the managing of biodiversity in agriculture. The Swedish National program for plant genetic recourses also includes strategies. The Swedish international development cooperation agency also has a biodiversity policy document.

A strategy for access to genetic resources has been formulated within the framwork of the Nordic Council of Ministers ("A Nordic approach to access and rights to genetic resources", 2003). It is focused on the access to genetic resources within the Nordic countries.

| **13.** Has your country set measurable targets within its national strategies and action plans? (decisions II/7 and III/9) | |
|---|---|
| a) No | |
| b) No, measurable targets are still in early stages of development | |
| c) No, but measurable targets are in advanced stages of development | |
| d) Yes, relevant targets are in place (please provide details below) | **X** |
| e) Yes, reports on implementation of relevant targets available (please provide details below) | **X** |

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

The Swedish parliament has approved a set of 15 Environmental quality objectives to be achieved within one generation, usually taken to correspond to the year 2020 (see Box III). The objectives have been made explicit through a total of 71 interim targets, using clearly defined indicators and time frames ranging from 2005 to 2020. Many of them employ the 2010 time frame used in the CBD targets. The implementation of targets is supported by three action strategies.

Implementation status is monitored continuously by an appointed council and annual reports are issued (see www.miljomal.nu). The targets have now been evaluated as well, and a revision is likely during 2005-2006.

| **14.** Has your country identified priority actions in its national biodiversity strategy and action plan? (decision VI/27 A) | |
|---|---|
| a) No | |
| b) No, but priority actions are being identified | |
| c) Yes, priority actions identified (please provide details below) | **X** |

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

The 71 interim targets adopted under the 15 Environmental quality objectives (see above) can be considered to describe the highest priority action to be taken.

| **15.** Has your country integrated the conservation and sustainable use of biodiversity as well as benefit sharing into relevant sectoral or cross-sectoral plans, programmes and policies? (decision VI/27 A) | |
|---|---|
| a) No | |
| b) Yes, in some sectors (please provide details below) | |
| c) Yes, in major sectors (please provide details below) | |
| d) Yes, in all sectors (please provide details below) | **X** |

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

A cornerstone in the Swedish strategy for biodiversity is sectoral integration. This means that objectives, targets and action plans have been largely produced and carried through within each sector, involving both government agencies and private part of each sector (including industry).

| **16.** Are migratory species and their habitats addressed by your country's national biodiversity strategy or action plan (NBSAP)? (decision VI/20) | |
|---|---|
| a) Yes | **X** |
| b) No | |
| I) If **YES**, please briefly describe the extent to which it addresses | |
| (a) Conservation, sustainable use and/or restoration of migratory species | The objectives and interim targets do not explicitly refer to migratory species, but actions taken correspond to such targets.<br>Sweden is party to CMS and the AEWA agreement. Hunting regulations are in line with these documents and EU directives. For some species, Action Plans are being developed and/or implemented. |
| (b) Conservation, sustainable use and/or restoration of migratory species' habitats, including protected areas | This is mainly done within the Natura 2000 network of protected areas (EU Birds and Habitats directives). |
| (c) Minimizing or eliminating barriers or obstacles to migration | The migration route of lesser white-fronted goose has been modified to increase the chances of long-term survival. |
| (d) Research and monitoring for migratory species | Many migratory species are part of the ongoing national monitoring programme (see article 7) |
| (e) Transboundary movement | |
| II) If **NO**, please briefly indicate below | |
| (a) The extent to which your country addresses migratory species at national level | |
| (b) Cooperation with other Range States since 2000 | |

## Biodiversity and Climate Change

| **17.** Has your country implemented projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use? (decision VII/15) | |
|---|---|
| a) No | **X** |
| b) No, but some projects or programs are under development | |
| c) Yes, some projects have been implemented (please provide details below) | |
| Further comments on the projects aimed at mitigating and adapting to climate change that incorporate biodiversity conservation and sustainable use. | |
| | |

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

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

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

**Box XLII.**

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

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

## Article 7 - Identification and monitoring

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

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

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

**Ecosystem level:**

Traditionally the ecosystem level has received most attention. There is a wide range of initiatives and programmes. It should be noted, however, that Sweden lacks a comprehensive and detailed vegetation/land use classification, and there is no national digital vegetation map.

The area of manages pasture and meadows are registered within the Sweden's Rural Development Programme. The pasture and meadows are also identified in a national inventory. Wetlands of high conservation value have been registered in the Mire Protection Plan. Forest and woodland key habitats (very high conservation value forests) are being identified within the sectoral programs and voluntary certification programmes. Within the EU programme Natura 2000 all threatened habitat types have been identified.

**Species level:**

The Swedish Species Information Center (ArtDatabanken) has been commissioned by the government to develop identification keys for all Swedish multi-cellular organisms. This project – the Swedish Taxonomy Initiative - is designed to run for 20 years and will result in the production of "The Swedish Flora and Fauna Encyclopedia"- a series of identification handbooks with keys to the Swedish plants and animal species.

**Gene level:**
Generally the least attention is directed at identifying components at the gene level, but a number of initiatives do exist. E.g. a national programme for plant genetic resources (POM) is being implemented. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. This work will identify biodiversity at both the species and gene levels. There is also a register on different breeds of animals. Fish stock identification by genetic studies of commercial fish species is undertaken.

| **20.** ? On Article 7(b), which components of biological diversity identified in accordance with Annex I of the Convention, have ongoing, systematic monitoring programmes? | |
|---|---|
| a) at ecosystem level (please provide percentage based on area covered) | **X** |
| b) at species level (please provide number of species per taxonomic group and percentage of total known number of species in each group) | **X** |
| c) at genetic level (please indicate number and focus of monitoring programmes ) | |

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

a) Terrestrial ecosystems are covered by two sample-based programs, using systematic sampling (different percentage of area covered for different ecosystems and variables). The Swedish national forest inventory covers not only forests, but also other non-tilled and non-urban areas outside the mountain range. An recently initiated program, NILS (National Inventory of Landscapes in Sweden) where landscape squares are censused every fifth years by field visits and air photo interpretation, covers all terrestrial ecosystems. For fresh-water ecosystems, a sample-based inventory (PPS sampling, once every 5:th yr) exists, and also yearly monitoring at selected sites (non-randomly selected). For marine ecosystems, only non-randomly selected sites exists.

b) A number of top predators are more or less comprehensively censused yearly (wolf, bear, wolverine, lynx, arctic fox, seals, eagles). There is a breeding bird survey (partly based on systematic sampling), and also some other monitoring and inventory activities that together give fairly good yearly population data for many, but not all, bird species. Selected lists of vascular plants, mosses and lichens are monitored in the terrestrial sample-based programs mentioned above.

There is monitoring of fish communities in coastal areas with multi-mesh nets, trawls and fyke-nets, covering 50 species of a total of 200 naturally occurring fish species. Survey test fishings within the environmental monitoring of 34 inland lakes and an additional 20 limed lakes. Environmental monitoring in lakes covers, in addition to fish, also plankton and benthic fauna. Basically, most of the ~40 freshwater fish species are covered in the survey test fishing.

| **21.** ? On Article 7(c), does your country have ongoing, systematic monitoring programmes on any of the following key threats to biodiversity? | |
|---|---|
| a) No | |
| b) Yes, invasive alien species (please provide details below) | |
| c) Yes, climate change (please provide details below) | **X** |
| d) Yes, pollution/eutrophication (please provide details below) | **X** |
| e) Yes, land use change/land degradation (please provide details below) | **X** |
| f) Yes, overexploitation or unsustainable use (please provide details below) | **X** |

Further comments on monitoring programmes on key threats to biodiversity.

b) Invasive alien fish species may be discovered within the monitoring of fish communities in coastal areas, but there is no monitoring for alien species per se.

c+d) Information from environmental monitoring (see Question 20) can indirectly be used to detect climate change as well as pollution and eutrophication. The primary purpose is to follow up long term changes and large scale impacts in the environment.

d) Monitoring of pollution/eutrophication and its effects is one of the major aims of our freshwater and marine monitoring programmes, and relevant variables are also included in air monitoring (deposition monitoring), forest monitoring (soil monitoring, forest health, vascular plants with indicator value, even some high-intensity catchment studies), and monitoring of nutrient leakage from agricultural sites.

e) There are no separate programmes for this, but most of the programmes mentioned in Question 20 include variables tracking land use change. There are also some pilot activities for monitoring the effect of trawling on marine soft bottoms.

f) Stock assessment of commercial fish species.

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

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

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

Data gathered in monitoring activities are currently stored in databases administrated by different authorities (e.g., National Board of Fisheries, Swedish University of Agricultural Sciences / Dept of Environmental Assessment), acting as Data Hosts (see http://www.internat.naturvardsverket.se/documents/issues/monitor/modoc/datahost.htm for details).

There is currently an ongoing government investigation into the most efficient organization of data storage and retrieval. The multitude of data hosts, and a similar variation in technical solutions and access points, contributes to a fragmented situation, in which data may not be used to their best effect. Data on biological diversity and related variables are not freely available even between government agencies, which may limit their usefulness and cost-effectiveness.

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

| | |
|---|---|
| a) No | |
| b) No, but identification of potential indicators is under way (please describe) | |
| c) Yes, some indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented) | **X** |

| | |
|---|---|
| d) Yes, a relatively complete set of indicators identified and in use (please describe and, if available, provide website address, where data are summarized and presented | |

Further comments on the indicators identified and in use.

The Swedish Environmental quality objectives call for the application of a range of indicators (see Boxes III, XI and XV, and http://miljomal.nu/english/indicators.php for further information).

Indicators are also in use within sectoral programmes, e.g. to identify habitat important for juvenile fish production.

**Box XLIII.**

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

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

## Decisions on Taxonomy

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

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

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

There is no formal plan, but several relevant activities are being carried out.

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

| | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | |

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

The Swedish government has however assigned short-term financial support for the maintenance and curation of biological collections.

| **26.?** Does your country provide training programmes in taxonomy and work to increase its capacity of taxonomic research? (decision IV/1) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

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

Sweden has a very long tradition with taxonomical work on a global scale. We have very highly competent scientists, judged from the frequent citations of international publications and the contribution to the international taxonomical-systematical society. This situation may change in the future, since we have seen a drastic decrease in support to systematics in Sweden from several actors. Several of the earlier professor chairs in taxonomy have been changed into ecology and the support from research councils is low. There are very limited efforts at the universities in the country to produce professional taxonomists, especially considering the global need.

However, there are some important exceptions. Within the recent government initiated research programme on biological diversity, taxonomy has been highlighted. In terms of actually funded projects, the outcome was not very impressing, and mainly work on organisms in Sweden was funded. Organisms are not restricted to political borders and good scientific taxonomy must be performed on an international scale. Without taxonomical research projects there will be no taxonomists, and that will have an drastic effect on the biology education at the universities and also in the end a very negative effect on the maintenance and understanding of biological diversity.

Apart from regular university courses, local Swedish NGO:s are active in providing ad hoc educational programmes focussing on faunal and/or floral studies.

| **27.?** Has your country taken steps to ensure that institutions responsible for biological diversity inventories and taxonomic activities are financially and administratively stable? (decision IV/1) | |
|---|---|
| a) No | |
| b) No, but steps are being considered | |
| c) Yes, for some institutions | **X** |
| d) Yes, for all major institutions | |

| **28.*** [2] Is your country collaborating with the existing regional, subregional and global initiatives, partnerships and institutions in carrying out the programme of work, including assessing regional taxonomic needs and identifying regional-level priorities? (decision VI/8) | |
|---|---|
| a) No | |
| b) No, but collaborative programmes are under development | |
| c) Yes, some collaborative programmes are being implemented (please provide details about collaborative programmes, including results of regional needs assessments) | **X** |

[2] The questions marked with * in this section on Taxonomy are similar to some questions contained in the format for a report on the implementation of the programme of work on the Global Taxonomy Initiative. Those countries that have submitted such a report do not need to answer these questions unless they have updated information to provide.

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

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

Sweden is through the Swedish Museum of Natural History member of the Consortium of European Taxonomic Facilities (CETAF), has contributed to the document 'Supporting European Taxonomy – current state and future actions' published by EPBRS (European Platform for Biodiversity Strategy, 2003), and participated in the workshop 'Building Capacity for the Global Taxonomy Initiative (GTI) in a larger Europe' (21-23 June 2004).

Sweden is a member of IUCN, GBIF, and ICOM (International Council of Museums, an international organisation of museums which is committed to the conservation, continuation and communication to society of the world's natural and cultural heritage, present and future, tangible and intangible).

The major botanical gardens in Sweden are members of BGCI (Botanic Gardens Conservation International) an organization for plant conservation, furthering both the GTI and the Global Strategy for Plant Conservation.

Some of the taxonomists in Sweden are active in the international networks, e.g. several botanists are members of the APG-group (that recently presented the classification of all flowering plants that now is the standard reference e.g. used in GenBank).

The Nordic Gene Bank is a regional initiative which has been existing for 25+ years now.

Sweden has through its international development cooperation agency (Sida) and the Scientific Council on Biological Diversity actively supported both regional needs assessments (in Central America and Africa), and taxonomic projects (e.g the production of the Flora of Ethiopia).

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

| | |
|---|---|
| a) No | |
| b) Yes, basic assessment made (please provide below a list of needs and capacities identified) | **X** |
| c) Yes, thorough assessment made (please provide below a list of needs and capacities identified) | |

Further comments on national assessment of taxonomic needs and capacities.

Sweden has made brief assessments of national needs and capacities resulting in running activities, and, contributed to the document 'Supporting European Taxonomy – current state and future actions' published by EPBRS (European Platform for Biodiversity Strategy, 2003).

The Swedish Taxonomy Initiative, at the Swedish Species Information Centre (www.artdata.slu.se), was launched in 2002 with the goal to describe every multicellular species in Sweden within a 20 year period, with priorities given to poorly known groups of species. It is evident that most, if not all, biodiversity monitoring projects mentioned below suffer from a substantial lack of taxonomic knowledge of many groups of species and will benefit significantly from the initiative.

The initiative is part of Sweden's efforts concerning biodiversity and sustainable development resulting in a large scale venture with the title 'Inventories and studies of current Swedish species, their requirements, natural behaviour and roles in the ecosystem. Implications for conservation and environmental control'.

The venture has been given a governmental grant during the period 2002-2004, which goes to the Swedish Species Information Centre and the two research councils Vetenskapsrådet ('The Swedish Research Council', www.vr.se) and FORMAS ('The Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning', www.formas.se); the grants to the SSIC have in part been set aside for the digitization of the natural history museum collections in Sweden.

The Swedish Taxonomy Initiative is an acknowledgment of the fundamental importance of highly developed taxonomic competence and thriving natural history museums to all aspects of biological

research, conservation, and environmental monitoring. For the fulfillment of Sweden's commitment to the CBD, it is essential that these efforts are given continued support.

Sweden has numerous local NGO:s with activities which in part coincides with the programme of work for the GTI. These include, but are not restricted to, the Swedish Ornithological Society (www.sofnet.org), the Entomological Society of Sweden (www.sef.nu), and the Swedish Botanical Society (www.sbf.c.se).

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

Further comments on regional or global capacity-building to support access to, and generation of, taxonomic information in collaboration with other Parties.

Sweden is actively participating in capacity building projects both at the regional and global levels and has a track record of transboundary capacity building projects, which include both human and infrastructure capacity building to support access to and generation of taxonomic information. The Swedish International Development Cooperation Agency (www.sida.se) has several programmes with focus on biodiversity.

Sweden is participating in as well as promoting several network capacity building projects at the regional level, including, but not limited to, CETAF, SYNTHESYS, ENBI, BioCASE, and EUNIS

See also Question 28.

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

Further comments on the development of taxonomic support for the implementation of the programmes of work under the Convention.

b) Sweden has projects which provide a basic assessment of forest biological diversity, also in areas under current threat for habitat conversion, or of high conservation value, notably under the auspices of the National Board of Forestry (www.svo.se) and the Swedish Environmental Protection Agency.

c) Sweden has several permanent monitoring activities relating to marine and coastal biodiversity, notably under the auspices of the National Board of Fisheries(www.fiskeriverket.se) and the Swedish Environmental Protection Agency, as well as activities run from FishBase.

d) Sweden is actively supporting taxonomic capacity building in several transboundary projects in dry and sub-humid lands biodiversity, like Flora Ethiopica, GBIF, and FishBase. Otherwise, the programme is largely not applicable within Sweden.

e) Sweden has several, permanent monitoring activities relating to inland waters biodiversity, notably under the auspices of the National Board of Fisheries and the Swedish Environmental Protection Agency, the Swedish University of Agricultural Sciences (www.slu.se), as well as activities run from the Swedish Museum of Natural History and FishBase.

f) Sweden has a strong and explicit focus on the mountain biodiversity which includes monitoring activities notably under the auspices of the Swedish Environmental Protection Agency. The mountain taxonomic capacity building is further realized by the Ajtte Museum (www.ajtte.com) which has a focus on the Swedish mountain flora.

g) Sweden has several ongoing projects related to protected areas which include monitoring activities notably under the auspices of the Swedish Environmental Protection Agency and the Swedish Species Information Centre (www.artdata.slu.se) which serves as the focal point for information on threatened species and biodiversity in Sweden and prepares the national Red List and Red Data Books.

h) Sweden has made available an action plan described in the document 'The Environmental and Rural Development Plan for Sweden 2000 - 2006' which includes monitoring activities notably under the auspices of the Swedish Board of Agriculture (www.sjv.se), the Swedish Environmental Protection Agency, and the Swedish Board of Antiquities (www.raa.se). The Swedish Species Information Centre runs The Swedish Wild Bee Project. A database for cultural plants and the variety names (SKUD) is hosted by the Swedish Biodiversity Centre and Gothenburg Botanical Gardens.

The above activities and programmes are highly valuable, but the actual taxonomic content is often not sufficient.

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

Further comments on the development of taxonomic support for the implementation of the cross-cutting issues under the Convention.

d), e) Sweden has several permanent monitoring activities using an ecosystem approach, notably under the auspices of the Swedish Environmental Protection Agency. The Swedish Taxonomy Initiative explicitly promotes taxonomic studies which supports the field of assessments, monitoring and indicators.

f) Sweden recognizes the issue of invasive species, but so far very few species have been targeted for management. Comprehensive policies and programmes are under joint development by several

actors, e.g. the Swedish Environmental Protection Agency, Swedish University of Agricultural Sciences, the National Board of Fisheries, and the Swedish Biodiversity Centre (www.cbm.slu.se). The AquAliens (www.aqualiens.tmbl.gu.se) is a research programme aimed at increasing our knowledge on how to assess the risks posed by introduced aquatic species and their impact on ecosystems and economy in Sweden.

The above activities and programmes are highly valuable, but the actual taxonomic content is often not sufficient.

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

**33.** ? On Article 8(i), has your country endeavored to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components?

| | |
|---|---|
| a) No | |
| b) No, but potential measures are being identified | |
| c) Yes, some measures undertaken (please provide details below) | |
| d) Yes, comprehensive measures undertaken (please provide details below) | **X** |

Further comments on the measures taken to provide the conditions needed for compatibility between present uses and the conservation of biological diversity and sustainable use of its components.

See Boxes VIII and XVI.

A backbone in the nature conservation policies and strategies is that the measures should cover the whole landscape. The Ecosystem Approach is also highlighted. The two cornerstones are “areas of specific value for biodiversity” (among these protected areas) and adjustment in use of biological resources in the wider landscape in order to accomplish a sustainable use, in line with CBD. The grants for biodiversity have increased from ca 190 million SEK 1996 to ca 1 890 million SEK 2006. Simultaneously land use and production in neighboring land areas, as well as use in water areas including surrounding seas, may be counterproductive for the conservation of biodiversity. There is still a clear challenge in the construction of policies and incentives that may combine the two interests, which of course is the very essence of the objectives of CBD.
The Swedish strategy to assign a responsibility to each sector to manage biodiversity sustainably (sectoral integration). This means that companies and organizations are expected to develop their own tools for the reconciliation of conservation and sustainable use of resources. A good example can be seen in the voluntary systems for certification of forestry activities.

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

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

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

The Environmental Code and associated regulations includes protected areas, protection for some threatened species and for some biotopes. The taking of vertebrates through hunting or fisheries is

strictly regulated in dedicated laws. E.g. there are two national fisheries regulations imposing a total ban on fisheries for 11 threatened marine species and almost as many for brackish and freshwater species.

In many cases Swedish law is a direct implementation of EU directives, and in some areas, such as the regulation of international trade in endangered species, there is EC law directly applicable in Sweden.

| **35.** ? On Article 8(l), does your country regulate or manage processes and categories of activities identified under Article 7 as having significant adverse effects on biological diversity? | |
|---|---|
| a) No | |
| b) No, but relevant processes and categories of activities being identified | |
| c) Yes, to a limited extent (please provide details below) | |
| d) Yes, to a significant extent (please provide details below) | **X** |

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

The majority of our Environmental quality objectives (see Boxes III-XXIII) are aimed at removing such threats. It is however far from certain that all threats will be under control within the time-limits given.

**Box XLIV.**

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

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

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

| **36.** Has your country established suitable time bound and measurable national-level protected areas targets and indicators? (decision VII/28) | |
|---|---|
| a) No (please specify reasons) | |
| b) No, but relevant work is under way | |
| c) Yes, some targets and indicators established (please provide details below) | |
| d) Yes, comprehensive targets and indicators established (please provide details below) | **X** |

Further comments on targets and indicators for protected areas.

See Box IV.

| **37.** Has your country taken action to establish or expand protected areas in any large or relatively unfragmented natural area or areas under high threat, including securing threatened species? (decision VII/28) | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, limited actions taken (please provide details below) | |
| d) Yes, significant actions taken (please provide details below) | **X** |

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

Many threatened large foresst and mires with high nature conservation values have been protected during the last years, e.g. the following representative examples: Fulufjället nationalpark, Söderåsen nationalpark, Granlandet nature reserve and Tervavuoma nature reserve.

| **38.** Has your country taken any action to address the underrepresentation of marine and inland water ecosystems in the existing national or regional systems of protected areas? (decision VII/28) | |
|---|---|
| a) No | |
| b) Not applicable | |
| c) No, but relevant actions are being considered | |
| d) Yes, limited actions taken (please provide details below) | |
| e) Yes, significant actions taken (please provide details below) | **X** |

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

In 2002 the Government made a decision on a new nature conservation policy that pointed out a need to strengthen nature conservation in water environments. In compliance with that decision rivers and streams with high nature conservation value are given higher priority for site protection during the last years. Furthermore the Environmental Protection Agency and regional county boards are working out a proposal for a new transboundary marine nationalpark in the Koster-archipelago together with Norwegian authorities. During 2004-05 the EPA will make a compilation of lakes and streams with high nature conservation values.

Also the implementation of Natura 2000 (see Box XXVII) is relevant in this context. Several marine and inland water sites have been designated to that ecological network.

The following interim targets are also most relevant:

Environmental quality objective 8: Flourishing Lakes and Streams

**Interim target 8.1: Protection of natural and cultural environments**

*By 2005 the competent authorities will have identified and drawn up action programmes for natural and cultural environments, in or in the vicinity of lakes or streams, that are of particularly high conservation value and require long-term protection. By 2010 long-term protection will be provided for at least half of these environments.*

Environmental quality objective 10: A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagos

**Interim target 10.1: Marine environments of high conservation value**

*By 2010 long-term protection will be provided for at least 50% of marine environments of high conservation value and at least 70% of coastal and archipelago areas with significant natural and cultural assets. By 2005 another five marine areas will be protected as reserves, and the competent authorities will have decided which other areas in the marine environment are in need of long-term protection.*

| **39.** Has your country identified and implemented practical steps for improving the integration of protected areas into broader land and seascapes, including policy, planning and other measures? (decision VII/28) | |
|---|---|
| a) No | |
| b) No, but some programmes are under development | |
| c) Yes, some steps identified and implemented (please provide details below) | |
| d) Yes, many steps identified and implemented (please provide details below) | **X** |

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

At the request of the government the Environmental Protection Agency and the Forestry Board recently developed a strategy for integration of protected areas into broader landscape conservation and management. Furthermore, forest companies with large forest holdings now widely implement landscape-ecology based manageme nt plans. The ecological benefits of such plans are however unknown, because of insufficient public information and evaluation programmes. At the request of the government the EPA has proposed an overarching environmental quality objective for biodiversity; “A rich flora and fauna”. The objective comprehends interim targets for regional landscape strategies.

| **40.** Is your country applying environmental impact assessment guidelines to projects or plans for evaluating effects on protected areas? (decision VII/28) | |
|---|---|
| a) No | |
| b) No, but relevant EIA guidelines are under development | |
| c) Yes, EIA guidelines are applied to some projects or plans (please provide details below) | |
| d) Yes, EIA guidelines are applied to all relevant projects or plans (please provide details below) | |

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

According to Swedish and EC legislation an EIA must be performed for projects that may affect species or habitats within protected areas in the Natura 2000 network.

| **41.** Has your country identified legislative and institutional gaps and barriers that impede effe ctive establishment and management of protected areas? (decision VII/28) | |
|---|---|
| a) No | |

| | |
|---|---|
| b) No, but relevant work is under way | |
| c) Yes, some gaps and barriers identified (please provide details below)) | **X** |
| d) Yes, many gaps and barriers identified (please provide details below) | |

Further comments on identification of legislative and institutional gaps and barriers that impede effective establishment and management of protected areas.

Within the process of setting up the network Natura 2000 (see box XXVII) a formal assessment procedure has taken place. The Swedish contribution, as well as the contribution from other Member States, has been assessed in order to evaluate if the contribution is sufficient, given the provisions in the Habitats Directive. This process includes some gap assessment (regarding the habitat types and species concerned). The ongoing work with Natura 2000 also includes some gap analysis of institutional gaps. There has been no formal total gap analysis of all habitat types and species occurring in Sweden, but it is commonly recognized that several regional county boards have insufficient personnel resources.

**42.** Has your country undertaken national protected-area capacity needs assessments and established capacity building programmes? (decision VII/28)

| | |
|---|---|
| a) No | **X** |
| b) No, but assessments are under way | |
| c) Yes, a basic assessment undertaken and some programmes established (please provide details below) | |
| d) Yes, a thorough assessment undertaken and comprehensive programmes established (please provide details below) | |

Further comments on protected-area capacity needs assessment and establishment of capacity building programmes.

This is a task that is carried out as a part of on-going nature conservation activities, especially at county level (the 21 County Administrations). The government has also notified that it will commission the Swedish EPA to do an assessment of what additional measures and actions that are needed, in order to contribute to the implementation of the CBD Program of Work for Protected Areas.

**43.** Is your country implementing country-level sustainable financing plans that support national systems of protected areas? (decision VII/28)

| | |
|---|---|
| a) No | |
| b) No, but relevant plan is under development | |
| c) Yes, relevant plan is in place (please provide details below) | |
| d) Yes, relevant plan is being implemented (please provide details below) | **X** |

Further comments on implementation of country-level sustainable financing plans that support national systems of protected areas.

Since the early 1990s, site protection has been greatly extended, with particularly marked growth in the last few years following parliamentary decisions to increase funding, especially for protection of valuable forest areas. For agriculture there are subsidies within Sweden's Rural Development Programme.

| **44.** Is your country implementing appropriate methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance? (decision VII/28) | |
|---|---|
| a) No | |
| b) No, but relevant methods, standards, criteria and indicators are under development | |
| c) Yes, some national methods, standards, criteria and indicators developed and in use (please provide details below) | |
| d) Yes, some national methods, standards, criteria and indicators developed and in use and some international methods, standards, criteria and indicators in use (please provide details below) | **X** |

| Further comments on methods, standards, criteria and indicators for evaluating the effectiveness of protected areas management and governance. |
|---|
| Both national and EU-related (Natura 2000) standards, criteria and indicators are used. |

**Box XLV.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| The National Heritage Board has pointed out a number of problems concerning the long-term management of protected areas, especially regarding the balance between nature protection and the protection of cultural objects and landscapes. There is a need for management based on knowledge of historical land use. Many protected areas have a long history of traditional use by man, and there is a need for continued active management of conservation values, including natural and cultural values. There is a need for a unified strategy for such management of natural and cultural values, including principles for the handling of apparent conflicts of interest between them. |

## Article 8(h) - Alien species

| **45.** Has your country identified alien species introduced into its territory and established a system for tracking the introduction of alien species? | |
|---|---|
| a) No | |
| b) Yes, some alien species identified but a tracking system not yet established | **X** |
| c) Yes, some alien species identified and tracking system in place | |
| d) Yes, alien species of major concern identified and tracking system in place | |

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

| | |
|---|---|
| a) No | |
| b) Yes, but only for some alien species of concern (please provide details below) | |
| c) Yes, for most alien species (please provide details below) | **X** |

Further information on the assessment of the risks posed to ecosystems, habitats or species by the introduction of these alien species.

Sweden has completed a preliminary assessment of the risks posed to ecosystems or species by the introduction of alien species in three reports published by the Swedish Environmental Protection Agency in 1994, 1997 & 1999 and by the Nordic Council of Ministers in 2000.

Risks posed to the aquatic environment by alien species are being studied in the research programme AquAliens which will end in year 2007.

The risks posed to indigenous populations by the introduction of nonindigenous populations of fish, forest trees and birds has been described in a report in 2004. A future plan of work for continuing the assessment of risks to biological diversity at the gene level by alien populations is being developed.

All the above assessments are preliminary, compiling available data on known problems and making general risk statements. There is a need for enhanced risk assessments of certain taxonomic groups, certain pathways of introduction, and the development of assessment protocols.

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

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

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

The Swedish Plant Protection Organization works through implementation of the International Plant Protection Convention towards preventing the introduction of alien species, particularly pathogens and pests which may affect plants. The Swedish Board of Agricultural and the Swedish Environmental Protection Agency work with preventing the introduction of pathogens and other alien species through introduction of animals through import regulations based on the OIE convention and EU directives on animal health.

Eradication programmes are in place in certain Swedish County Administrative Boards for the American mink Mustela vison and the Giant hogweed Heracleum mantegazzianum. In Västra Götalands län has a programme for eradicating a newly discovered marine algae, a Gracilaria vermiculophylla, been developed.

The Swedish Government has given the Swedish Maritime Administration instructions to investigate the consequences of an implementation of the International Convention for the Control and Management of Ship´s Ballast Water and Sediments adopted by the International Maritime Organization (IMO) on 13 February 2004. The report is to be finished by 28 February 2005.

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

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

| | |
|---|---|
| b) Yes, bilateral cooperation | |
| c) Yes, regional and/or subregional cooperation | X |
| d) Yes, multilateral cooperation | X |

| **49.** Is your country using the ecosystem approach and precautionary and bio-geographical approaches as appropriate in its work on alien invasive species? (decision V/8) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | X |

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

The precautionary approach is the basis for granting permission for intentional introduction of alien species and for developing control programmes of certain invasive species. Work on ecosystem level is planned, since it is meaningless to work at species level in this kind of issues.

See also Box XII, Sub-box VI.

| **50.** Has your country identified national needs and priorities for the implementation of the Guiding Principles? (decision VI/23) | |
|---|---|
| a) No | |
| b) No, but needs and priorities are being identified | |
| c) Yes, national needs and priorities have been identified (please provide below a list of needs and priorities identified) | X |

Further comments on the identification of national needs and priorities for the implementation of the Guiding Principles.

National needs for the implementation of the Guiding Principles were identified in a review of national legislature, measures and routines for dealing with alien species in 2004 by the Swedish Biodiversity Centre, in cooperation with government agencies. These needs include changes in legislature, developing a national strategy on invasive alien species, developing an organization, plan and funding for dealing with newly discovered invasive alien species, and developing methods for analyzing and managing risks involved with invasive alien species. The government has in the recent Bill to Parliament on the environmental objectives (see box II) notified a package of actions in order to address the issue of alien species.

See http://www.cbm.slu.se/pdf/regeringsuppdrag/frammandearter/IASRapport.pdf, for the Swedish Biodiversity Centre report.

| **51.** Has your country created mechanisms to coordinate national programmes for applying the Guiding Principles? (decision VI/23) | |
|---|---|
| a) No | X |
| b) No, but mechanisms are under development | |
| c) Yes, mechanisms are in place (please provide details below) | |

Further comments on the mechanisms created to coordinate national programmes for implementing the Guiding Principles.

The need for such coordination has been identified.

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

Further information on the review, adjustment or development of policies, legislation and institutions in light of the Guiding Principles.

The Swedish Biodiversity Centre has reviewed policies and legislation pertaining to alien species and what gaps and inconsistencies need to be addressed. As stated under Question 50, the government has in the recent Bill to Parliament on the environmental objectives (see box II) notified a package of actions in order to address the issue of alien species. This package includes the review and possible adjustment of legislation, policies etc.

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

Further comments on cooperation between various sectors.

Cooperation between the sectors is achieved through building networks and cross-sectoral working groups for the various projects pertaining to aliens, for example AquAliens research program which involves the Environmental Protection Agency, the National Board of Fisheries and researchers from universities throughout Sweden. Another example is the work in implementing the Convention on management of ballastwater and sediment which involves, the environmental sector, fisheries sector, Coast Guard, the Maritime Board and the shipping sector

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

Further comments on collaboration with trading partners and neighboring countries.

Collaboration between trading partners and neighboring countries has been initiated for some aspects of trade between countries. However, the work has only begun and much remains to be done.

One relevant collaborative programme is the Nordic/Baltic Network on Invasive Species which is funded by the Nordic Council of Ministers. This project aims to build an Internet based gateway to enable an exchange of information on invasive alien species between the 11 Nordic and Baltic countries. Sweden is also participating in the EU Sixth Framework STREP project Delivering Alien Invasive Species Inventories for Europe, which will develop a European Netwoek foor exchanging information on IAS and enabling regional cooperation on the issue.

For the prevention the introduction of alien species through ship's ballast water a programme of cooperation is being developed within the HELCOM organization for the States in the Baltic Sea region and within the Council of North Sea Senior Officials for the States in the North Sea region.

For the prevention of introduction through import of plants and animals which may become invasive, cooperation with trading partners and neighboring countries is at present very limited. At present the only possibility for limiting import of animals or products thereof, in cooperation with other countries within the EC, is through the implementation of CITES It is possible to list species that are considered to be invasive for the EC on the CITES lists. This leads to an import ban to the EC if listed.

For the prevention of introduction of invasive plant species and pathogens or pests on plants, cooperation between trading partners and neighboring countries is being further developed by cooperation within the European Plant Protection Organization (EPPO). Within EPPO guidelines for enforcing regulations on import of plants and plant materials are being developed to also include possibilities to include negative effects of plants and pathogens or pests on plants on wild plants and biological diversity.

| **55.** Is your country developing capacity to use risk assessment to address threats of invasive alien species to biodiversity and incorporate such methodologies in environmental impact assessment (EIA) and strategic environmental assessment (SEA)? (decision VI/23) | |
|---|---|
| a) No | |
| b) No, but programmes for this purpose are under development | |
| c) Yes, some activities for developing capacity in this field are being undertaken (please provide details below) | **X** |
| d) Yes, comprehensive activities are being undertaken (please provide details below) | |

Further information on capacity development to address threats of invasive alien species.

Within the ongoing AquAliens research programme methods are being developed for risk analysis of alien species in aquatic environments. Research within AquAliens is also aimed at studying the ecological effects of alien species on biological diversity. There is a need for similar research programmes focusing on other ecosystems and pathways of introduction. The results from research projects need to be applied in a formalized framework within government agencies. There is also a need for revision of relevant legislation, so that risk assessments can be mandated for a wider range of activities.

| **56.** Has your country developed financial measures and other policies and tools to promote activities to reduce the threats of invasive species? (decision VI/23) | |
|---|---|
| a) No | |
| b) No, but relevant measures and policies are under development | |
| c) Yes, some measures, policies and tools are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures and tools are in place (please provide details below) | |

Further comments on the development of financial measures and other policies and tools for the

| promotion of activities to reduce the threats of invasive species. |
|---|
| The Swedish Environmental Protection Agency has a policy that states introduction of alien species which may harm biological diversity are not to be allowed. The National Board of Fisheries has a policy in place which prohibits the introduction of new alien species to Sweden. Further spread of alien species already present within the country is subject to certain restrictions, with the exception of rainbow trout and signal crayfish. Stocking with nonindigenous populations of fish is also controlled. See also question 50 and 52. |

**Box XLVI.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| See Box XII, Sub-box VI. |

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

### GURTS

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

| Further comments on capacity-building programmes to involve and enable smallholder farmers, indigenous and local communities and other relevant stakeholders to effectively participate in decision-making processes related to GURTs. |
|---|
| No, there is no such programme within Sweden.<br>Yes, through its international development cooperation agency, Sweden has supported initiatives on GURTS in developing countries, e.g through both NGOs (Third World Network, ETC Group, GRAIN etc), large regional gene bank programmes (e.g. Southern and Eastern Africa) , and a regional biotechnology programme in Africa (BioEARN) |

### Status and Trends

| **58.** Has your country supported indigenous and local communities in undertaking field studies to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities? (decision VII/16) |
|---|

| | |
|---|---|
| a) No | **X** |
| b) No, but support to relevant studies is being considered | |
| c) Yes (please provide information on the studies undertaken) | **X** |

Further information on the studies undertaken to determine the status, trends and threats related to the knowledge, innovations and practices of indigenous and local communities, and priority actions identified.

There has been no such support to Swedish local communities, but two national activities relate to the status of traditional knowledge.

As a government assignment, the Swedish Biodiversity Centre, in wide consultation with representatives of indigenous peoples and local communities, has carried out a general assessment of the Swedish implementation of Article 8(j). The assessment report suggests a comprehensive new national network organization to deal with the documentation, preservation and use of traditional knowledge.

The government has, on the basis of the report from the Swedish Biodiversity Centre, in the recent Bill to Parliament on the environmental objectives (see box II), notified that an Action Program on Traditional Knowledge for Biodiversity will be elaborated.

The Swedish Biodiversity Centre, with support from the Environmental Protection Agency, is now compiling a three volume treatise on the traditional use of biological resources in Sweden. The project will be completed by 2007.

Swedish support has been provided to a number of international and/or southern-based NGOs to undertake such studies in developing countries.

## Akwé:Kon Guidelines

**59.** Has your country initiated a legal and institutional review of matters related to cultural, environmental and social impact assessment, with a view to incorporating the Akwé:Kon Guidelines into national legislation, policies, and procedures?

| | |
|---|---|
| a) No | **X** |
| b) No, but review is under way | **X** |
| c) Yes, a review undertaken (please provide details on the review) | |

Further information on the review.

There is no such review in Sweden, but support has been provided to capacity building among indigenous communities in developing countries to undertake such studies as part of capacity building on CBD.

**60.** Has your country used the Akwé:Kon Guidelines in any project proposed to take place on sacred sites and/or land and waters traditionally occupied by indigenous and local communities? (decision VII/16)

| | |
|---|---|
| a) No | **X** |
| b) No, but a review of the Akwé: Kon guidelines is under way | |
| c) Yes, to some extent (please provide details below) | |
| d) Yes, to a significant extent (please provide details below) | |

Further information on the projects where the Akwé:Kon Guidelines are applied.

## Capacity Building and Participation of Indigenous and Local Communities

| **61.** Has your country undertaken any measures to enhance and strengthen the capacity of indigenous and local communities to be effectively involved in decision-making related to the use of their traditional knowledge, innovations and practices relevant to the conservation and sustainable use of biodiversity? (decision V/16) | |
|---|---|
| a) No | |
| b) No, but some programmes being developed | |
| c) Yes, some measures taken (please provide details below) | **X** |
| d) Yes, comprehensive measures taken (please provide details below) | |

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

There are a number of local initiatives employing participatory processes, e.g. SEPA has supported projects on traditional reindeer herding, but clearly there is a need for a more comprehensive approach.

In the parts of Sweden, where the Sami people traditionally manage their reindeer herds, forest management is undertaken with consideration taken 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. It has also been conflicts on hunting, fishing, agriculture and erosion of the sensitive high mountain vegetation, chiefly lichens. These conflicts have been ongoing for 50-100 years.

Several projects and initiatives in developing countries have been supported with this objective.

Local involvement and participation also a key feature of bilateral rural development, forestry, agriculture, marine/coastal development programmes etc

In November 2002 a workshop: "WIPO Workshop for Nordic Countries on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore" was arranged in Sweden with participants from indigenous communities, industry and government agencies.

| **62.** Has your country developed appropriate mechanisms, guidelines, legislation or other initiatives to foster and promote the effective participation of indigenous and local communities in decision making, policy planning and development and implementation of the conservation and sustainable use of biodiversity at international, regional, subregional, national and local levels? (decision V/16) | |
|---|---|
| a) No | |
| b) No, but relevant mechanisms, guidelines and legislation are under development | |
| c) Yes, some mechanisms, guidelines and legislation are in place (please provide details below) | **X** |

Further information on the mechanisms, guidelines and legislation developed.

The Swedish constitution supports and strives for the involvement in decision making of all citizens. The involvement of local communities in policy making and implementation of conservation activities is an important goal for the central conservation authority (SEPA), and the guidance on the establishment of nature reserves provided by SEPA to local auhorities includes considerations of the participation of local stakeholders (Handbok (2003:3): *Bildande och förvaltning av naturreservat*).

To solve the land use problems in the mountain areas the government has asked the Regional Administrative Boards to develop, in cooperation and with participation of all relevant stakeholders, a Regional Environment and Management Plan for the mountain region.

Non-government organizations representing local communities, that base their activities on traditional use of biological resources, have pointed out that there are still many customary rights and practices that are not recognized and protected in Swedish law. They feel that existing regulations often are incompatible with traditional use, and there should be a mechanism in place for granting exemptions to recognized traditional practices. These organizations also point to their inability to take part in policy work on equal terms with government agencies and larger companies.

| **63.** Has your country developed mechanisms for promoting the full and effective participation of indigenous and local communities with specific provisions for the full, active and effective participation of women in all elements of the programme of work? (decision V/16, annex) | |
|---|---|
| a) No | |
| b) No, but relevant mechanisms are being developed | |
| c) Yes, mechanisms are in place (please provide details below) | **X** |

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

Gender equality and women's participation is a highlighted key aspect of all Swedish government work, including our international development cooperation.

## Support to implementation

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

| **65.** Has your country assisted indigenous and local community organizations to hold regional meetings to discuss the outcomes of the decisions of the Conference of the Parties and to prepare for meetings under the Convention? | |
|---|---|
| a) No | |
| b) Yes (please provide details about the outcome of meetings) | **X** |

Further information on the outcome of regional meetings.

The Swedish government has a policy to involve representatives of the indigenous Sami people in international negotiations that concern article 8(j), e.g. in CBD and WIPO, and has also supported participation in the ministerial meeting of the Arctic Council (2004).

Within the Swedish international development cooperation a number of meetings and events in the South has been supported, including recently:

- participation of indigenous representatives to COP7
- long-term support to capacity building of indigenous peoples to prepare for COP8
- participation of indigenous representatives in SBSTTA- and ABS-meetings (February 2005)
- international conference on Free and Prior Informed Consent (FPIC) by indigenous peoples

- case studies on FPIC
- planned support to indigenous participation in OEWG-PA in June 2005.

| **66.** Has your country supported, financially and otherwise, indigenous and local communities in formulating their own community development and biodiversity conservation plans that will enable such communities to adopt a culturally appropriate strategic, integrated and phased approach to their development needs in line with community goals and objectives? | |
|---|---|
| a) No | **X** |
| b) Yes, to some extent (please provide details below) | |
| c) Yes, to a significant extent (please provide details below) | **X** |

Further information on the support provided.

There is no comprehensive support, but a number of activities have been initiated. E.g. the reindeer herders among the Sami people have voluntarily decided to provide Environmental Plans for each local Sami community. These plans constitute part of the work to implement the Environmental quality objectives, especially the one for the mountain region.

There is however a widely felt concern that not enough is made to strengthen the participation of local communities. A researcher within the research programme the Conservation Chain, funded by the Environmental Protection Agency thus stated: “Nature conservation does have a dominating top-down structure in Sweden. Little efforts have thus far been made to enable local people to get involved in conservation and sustainable use of biodiversity. By environmental measures in CAP and other programmes, locals are invited to work with conservation in practice. Means to involve farmers and other locals in planning and decision making has not been developed. Furthermore, means and arenas for communication between locals and executives and experts has not been much considered.”

A large number of such activities in developing countries have been supported through international development cooperation.

**Box XLVII.**

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

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

In Sweden’s implementation of article 8(j) the term ”indigenous and local communities” has been interpreted so as to apply to the Sami people, traditional farmers in mountain and coastal areas, and traditional fishermen. The National Heritage Board comments that such a narrow definition of local communities excludes most users of biological resources. The Board would like to include all communities that utilise forest and agricultural resources employing any kind of traditional knowledge.

## Article 9 - *Ex-situ* conservation

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

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

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

For some species groups there are comprehensive measures in place, while for others there are no activities. Most ex situ measures concern domesticated animals and crop plants. For wild fauna and flora ex situ measures are considered a lower priority, as in situ conservation and sustainable use is the preferred management strategy.

Several action plans for threatened species are being implemented or under development, and for a restricted number of species temporary ex situ conservation measures are suggested as appropriate actions to strengthen populations.

A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The programme covers agricultural or horticultural plant species, but not wild plants or lichens, bryophytes etc. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species identified as priorities by POM.

The Nordic Gene Bank is a joint agency for Sweden and the other Nordic countries. The Nordic Gene Bank is mandated to manage ex situ measures for cultivated plants that are adapted to the Nordic climate as well as their wild relatives, for Sweden and the Nordic region. The Gene Bank performs ex situ conservation of seed producing species and co-ordinates the preservation of clonally propagated species.

The botanic gardens of Sweden have generally not taken active measures to conserve indigenous plants ex situ (see Box XXXI), but contributes to the conservation of globally endangered plant species. A database for cultural plants and the variety names (SKUD) is hosted by the Swedish Biodiversity Centre and Gothenburg Botanical Gardens.

Nordens Ark, a private non-profit foundation dedicated to the conservation of endangered animals, promotes ex situ breeding and reintroduction programmes, research and information. Furthermore, there are several zoological gardens that contribute to national and European breeding programmes for threatened animal species. The national programmes are coordinated through the Swedish Association of Zoological Parks and Aquaria (SAZA), and the European programmes by the European Association of Zoos and Aquaria (EAZA).

For livestock a management plan has been adopted by the Swedish Board of Agriculture. There is also program for subsidies for keeping ancient breeds that are threatened with extinction. Most of the practical work of keeping and managing populations of threatened domestic breeds is performed by private persons and their non-governmental organizations. Successful management of threatened breeds can only be achieved through cooperation between relevant government agencies, academic research institutions, and the animal keepers. So far, cooperative action has not been sufficient, and there is a lack of mutual understanding and recognition.

One private keeper of threatened breeds welcomes the EU support to environmental capacity building for farmers (KULM, KompetensUtveckling av Lantbrukare inom Miljöområdet) and to the ex situ breeding activities (MUTRO, Miljöstöd för Utrotningshotade Husdjursraser), but deplores the fact that the process involved was too elaborate, and did not recognize the farmer's situation. Much of this has been rectified, but this farmer still believes that the construction of the support is largely counter-productive.

| **68.** On Article 9(c), has your country adopted measures for the reintroduction of threatened species into their natural habitats under appropriate conditions? | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures are in place (please provide details below) | |

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

For a very limited number of species there have been adequate measures taken when species have been reintroduced in their natural habitat. This especially applies to threatened species for which detailed action plans have been developed. However, Sweden lacks an agency or organization that coordinates and monitors such activities. This will probably be addressed in the near future, as the Environmental Protection Agency is developing a policy on reintroductions as a conservation measure.

| **69.** On Article 9(d), has your country taken measures to regulate and manage the collection of biological resources from natural habitats for *ex-situ* conservation purposes so as not to threaten ecosystems and *in-situ* populations of species? | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures are in place (please provide details below) | |

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

Sweden's general legislation on the protection of endangered species, on hunting and fishing activities, and on the management of protected areas is applicable to this issue, but there is no comprehensive regulation that covers all organisms and habitats. This will be further elaborated in the Swedish Environmental Protection Agency's new policy on reintroductions, now under development.

**Box XLVIII.**

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

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

See Question 67 for descriptions of some challenges.

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

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

| | |
|---|---|
| a) No | |
| b) No, but steps are being taken | |
| c) Yes, in some relevant sectors (please provide details below) | |
| d) Yes, in most relevant sectors (please provide details below) | **X** |

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

The Swedish parliament has approved a set of 15 environmental quality objectives to be achieved within one generation, usually taken to correspond to the year 2020. The objectives have been made explicit through a total of 71 interim targets, using clearly defined indicators and time frames ranging from 2005 to 2020. All objectives and interim targets introduce issues of conservation and sustainable use into the activities of relevant sectors. See Box II and III.

The Swedish Strategy for Sustainable Economic, Social and Environmental Development (2003) is a revised version of the national strategy for sustainable development presented in 2002. The strategy builds on the 2002 World Summit on Sustainable Development held in Johannesburg, the EU strategy for sustainable development, and addresses the three dimensions of sustainable development: economic, social and environmental. See Box VIII.

The Swedish government has presented in 2002 its conservation policy in a communication to Parliament: "A Comprehensive Policy for Nature Conservation" (En samlad naturvårdspolitik, regeringens skrivelse 2001/02:173). This communication establishes the link between conservation and sustainable use, and elaborates on their implementation through the Environmental quality objectives. For the continued conservation work the government highlights the following issues:

- A strengthened dialogue with the citizens
- A further developed sectoral responsibility for conservation and sustainable use
- The importance of local community participation, and of nature in urban areas
- The importance of physical planning as a valuable tool
- The link between conservation and regional development, tourism based on natural and cultural values, and the management of cultural objects and landscapes
- Human health and social dimensions of nature conservation, especially in relation to outdoor activities
- The further development of programmes for protected areas
- Species conservation
- The importance of research, education and information
- The preservation and use of traditional knowledge
- Incentives for market-based voluntary programmes for conservation and sustainable use
- Sweden's continued cooperation for conservation within the EU, the global community, and within international development.

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

| | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | |

| | |
|---|---|
| c) Yes, some measures are in place (please provide details below) | |
| d) Yes, comprehensive measures are in place (please provide details below) | **X** |

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

See Boxes III, VII, VIII, IX, XI.

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

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

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

This is a complicated issue, with differing views on the implementation work. A number of measures have been taken, e.g. the establishment of protected areas that will be managed using traditional grazing regimes. There are also critical voices that point to the underutilization of customary practices. A social sciences researcher argues that "the top-down structure of nature conservation in Sweden is a hinder for distinguishing positive customary uses of biological resources, and for identifying important features in the local contexts in which rich biodiversity is enhanced". A representative of traditional farmers identifies the absence of protection of traditional knowledge as a major economic problem, as it hinders efficient commercialization and benefit sharing.

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

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

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

The focus is not on helping local populations develop and implement action. There is however significant activity in the field of remedial action in degraded areas. As an example, in the northernmost counties of Sweden the habitats for fish spawning and their nurseries were being destroyed during the time of log-driving. Since 1993 there has been comprehensive restoration programmes in most of the tributaries of the largest rivers (Torne-, Sangis-, Kalix-, Råne-, Lule-. Pite- and Klar rivers). In the salmon- and trout rivers new spawning areas have been built at a total length of 75 km. Monitoring of this work has showed positive effects on abundance of salmon and trout as well as biodiversity.

See also Box XI.

| **74.** ? Has your country identified indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity? (decision V/24) | |
|---|---|
| a) No | |
| b) No, but assessment of potential indicators and incentive measures is under way | |
| c) Yes, indicators and incentive measures identified (please describe below) | **X** |

Further comments on the identification of indicators and incentive measures for sectors relevant to the conservation and sustainable use of biodiversity.

See Boxes III, XI and XV for indicators in use under the Environmental quality objectives, that apply to all sectors as well as government action. See Questions 83-87 on incentive measures.

| **75.** ? Has your country implemented sustainable use practices, programmes and policies for the sustainable use of biological diversity, especially in pursuit of poverty alleviation? (decision V/24) | |
|---|---|
| a) No | **X** |
| b) No, but potential practices, programmes and policies are under review | |
| c) Yes, some policies and programmes are in place (please provide details below) | **X** |
| d) Yes, comprehensive policies and programmes are in place (please provide details below) | |

Further information on sustainable use programmes and policies.

There are no biodiversity related practices, programmes or policies with the specific aim to alleviate poverty within Sweden.

However, this issue is a key aspect within development cooperation. The Swedish international development cooperation agency (Sida) strives to work proactively with this particular issue through integration/mainstreaming of biodiversity within the large bilateral and regional programmes focused on natural resource management (agriculture, rural development, marine/coastal, forestry etc).

The Sida policy on biological diversity, as well as objectives of the Sida-initiated Swedish international Biodiversity Programme (SwedBio) at the Swedish Biodiversity Centre highlights that promotion of sustainable management of biodiversity is a key objective

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

Further comments on the development of mechanisms to involve the private sector in initiatives on the sustainable use of biodiversity.

The explicit responsibility of the sectors, including private companies, to conserve and use biodiversity in a sustainable way is a strong incentive. The private sector has largely responded well, while there still may be quite a wide range of interpretations of the concept of sustainable use. There

is a lively ongoing debate on the extent of the responsibility given to the private sector. This applies to the process of protected areas for old-growth forests, where according to the interim target 1 under the environmental objective Healthy Forests (see Box III), government and Parliament have divided the responsibility between itself and the forestry sector. The private sector has responded through the initiation of certification programmes for forestry management and products, but largely argues that large-scale protected areas must be funded by the government.

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

Further information on the process to apply the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

Sustainable use of biological diversity and biological resources is a backbone of Swedish environmental policy in general and several sectoral policies as well. This is also highlighted in the recent Bill to Parliament on the environmental quality objectives (see box II). The government has notified that relevant sectoral agencies will be commissioned to develop operative definitions and tools on "sustainable use", with the purpose to implement these into the practical use within each sector. Main sectors are forestry, agriculture, fisheries and reindeer breeding. This process will have the CBD definitions of key concepts as reference.

| **78.** Has your country taken any initiative or action to develop and transfer technologies and provide financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity? (decision VII/12) | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some technologies developed and transferred and limited financial resources provided (please provide details below) | |
| d) Yes, many technologies developed and transferred and significant financial resources provided (please provide details below) | **X** |

Further comments on the development and transfer of technologies and provision of financial resources to assist in the application of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity.

The Addis Ababa principles and guidelines correspond well with Sida's and SwedBio's criteria and strategy for work with biodiversity, and both support to biodiversity-focused projects as well as broader work on integration of biodiversity aspects within NRM-programmes fits well with the AA principles. However, the aim has not been to support implementation of the guidelines per se, rather they are now being used as an additional point of reference when programmes/projects are designed.

## Biodiversity and tourism

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

| | |
|---|---|
| a) No | |
| b) No, but mechanisms are under development | |
| c) Yes, mechanisms are in place (please specify below) | **X** |
| d) Yes, existing mechanisms are under review | |

Further comments on the establishment of mechanisms to assess, monitor and measure the impact of tourism on biodiversity.

There is no specific programme on the impact of tourism, but the effects of transportation, infrastructure development (accommodation) etc. on biodiversity are being monitored, indirectly giving an assessment of tourism development.

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

| | |
|---|---|
| a) No | |
| b) No, but programmes are under development | |
| c) Yes, programmes are in place (please describe below) | **X** |

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

The private tourist sector has developed a number of methods to assess their environmental effects. An eco-labelling system has been implemented by the Ecotourism Association (Ekoturismföreningen), with financial support from the Swedish Business Development Agency (NUTEK) and the Swedish Tourist Authority.

There still remains contentious issues that affect biodiversity values. One such issue is whether tourist companies may use carrion baits to attract large predators for easy viewing. The companies argue that such practices are necessary to make their business viable, whereas conservation agencies feel that their work to build acceptance among local farmers for the goals to keep viable predator populations is severely impaired by the presence of habituated predators.

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

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

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

There are a number of tourism development projects run by local authorities that will result in the development of environmentally friendly tourism, with the participation of the local communities. There is also ongoing development of small-scale Sami-based tourism.

| **82.** Has your country integrated the Guidelines on Biodiversity and Tourism Development in the development or review of national strategies and plans for tourism development, national biodiversity strategies and actions plans, and other related sectoral strategies? (decision VII/14) | |
|---|---|
| a) No, but the guidelines are under review | **X** |
| b) No, but a plan is under consideration to integrate some principles of the guidelines into relevant strategies | |
| c) Yes, a few principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector) | |
| d) Yes, many principles of the guidelines are integrated into some sectoral plans and NBSAPs (please specify which principle and sector) | |

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

In the communication to Parliament: "A Comprehensive Policy for Nature Conservation" (see question 70) one thematic chapter addresses specific the issue of nature conservation and tourism (policy).

**Box XLIX.**

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

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

## Article 11 - Incentive measures

| **83.** ? Has your country established programmes to identify and adopt economically and socially sound measures that act as incentives for the conservation and sustainable use of components of biological diversity? | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some programmes are in place (please provide details below) | **X** |
| d) Yes, comprehensive programmes are in place (please provide details below) | |

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

The national programme for local investments for sustainable development (Lokala investeringsprogram LIP) has acted as a strong incentive for local authorities. A total of 195 conservation and sustainable use projects were awarded 400 million SEK in government grants. The projects were based in e.g. marine and freshwater environments (35%), urban areas (20%), the agricultural landscape 6%), forests (3%), wetlands (22%). The conservation of biodiversity has benefitted from this programme, especially so in the wetlands projects.

A governmental program on Local Nature Conservation Projects is running right now (2004-2006). It comprises a total of 300 million SEK during these three years. This sum should be matched by co-financing from other local or regional sources. The aim of the program is to stimulate local nature conservation efforts, especially among the municipalities. Active participation of local stakeholders is encouraged. Key concepts are partnership, contribution to the environmental objectives, and synergies to other policy areas.

Sweden's Rural Development Programme (LBU) includes subsidies and extension work that encourage the conservation and sustainable use of biodiversity in agriculture. The programme in its present form will be ended in 2006. Subsidies have stimulated environmentally sound practices in ley production, the use of natural grazing pastures, and ecological farming. The programme has been instrumental in creating opportunities for farmers to keep grazing livestock on traditionally managed meadows.

Today between 300,000 and 400,000 ha meadows of high conservation value are being managed, as a result of the LBU programme. Without such incentives there would have been less than 50,000 ha still in active management. A large number of nationally threatened species benefit from the preservation of such traditional meadow management.

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

| | |
|---|---|
| a) No | |
| b) No, but relevant mechanisms are under development | X |
| c) Yes, mechanisms are in place (please provide details below) | X |
| d) Yes, review of impact of mechanisms available (please provide details below) | |

Further comments on the mechanism or approaches to incorporate market and non-market values of biodiversity into relevant plans, policies and programmes.

In the agricultural sector positive economic incentive measures have been applied to non-market values of biological diversity, through direct subsidies. In the forestry sector the two goals of sustained production and conservation have been given equal status, but in reality there is no such equality, and there are insufficient incentive measures directed at the private sector.

The Mire Protection Plan can be seen as an incentive measure that has reduced the amount of wetlands being utilized for peat extraction. The restoration of wetlands within the agricultural landscape has benefitted from government subsidies.

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

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

**86.** Does your country take into consideration the proposals for the design and implementation of incentive measures as contained in Annex I to decision VI/15 when designing and implementing

| incentive measures for the conservation and sustainable use of biodiversity? (decision VI/15) | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | |

Further information on the proposals considered when designing and implementing the incentive measures for the conservation and sustainable use of biodiversity.

There has been no formal process of implementation of the Annex I recommendations, but some principles and measures given in the annex correspond to the incentive measures that have been implemented.

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

Further information on perverse incentives identified and/or removed or mitigated.

Examples of harmful incentives that have been removed:

- subsidies for constructing forest roads (for transportation of timber)
- subsidies for cutting down sparsely wooded forests
- subsidies for the afforestation of grazing pastures
- subsidies for drainage of wet forests
- subsidies for the construction of minor hydro-electric power plants

**Box L.**

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

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

The National Heritage Board points out that many of the existing economic incentives are based on the presumption that the protection of nature values and economic production cannot be combined. Large amounts are invested in protected areas in forests, whereas economic activities take place outside such areas, with separate types of incentives. The Board calls for incentive measures that would combine production interests, nature conservation, and the management of cultural objects and landscapes over much larger land areas.

# Article 12 - Research and training

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

| | |
|---|---|
| a) No | |
| b) No, but programmes are under development | |
| c) Yes, programmes are in place (please provide details below) | **X** |

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

Sweden has a range of universities providing scientific and technical education and training, covering most aspects of the identification, conservation and sustainable use of biological diversity. Graduate programmes are available in all disciplines.

A large proportion of the Ph.D. students in graduate programmes are being funded through research grants. The Swedish parliament has allocated extra funds for research on biodiversity and for support for ecologically sustainable development. Over the period 2000-2004, a total of 400 million SEK has been allocated to the leading research funding agencies, Formas and the Swedish Research Council. A further 40 million SEK was allocated to the Swedish Species Information Center at the Swedish University of Agricultural Sciences (SLU).

Several education and training programmes are supported through international development cooperation, including e.g.:

- International M.Sc. programme on biodiversity management (at the Swedish Biodiversity Centre)
- Regional training and research programme on dryland biodiversity in East Africa

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

| | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

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

The Swedish parliament has allocated extra funds for research on biodiversity and for support for ecologically sustainable development. Over the period 2000-2004, a total of 400 million SEK has been allocated to the leading research funding agencies, Formas and the Swedish Research Council. A further 40 million SEK was allocated to the Swedish Species Information Center at the Swedish University of Agricultural Sciences (SLU). Most of the funds assigned to Formas were distributed after a call for applications at the end of 2000.

This call has four themes:

- The status and development of biodiversity
- Factors that affect biodiversity
- Measures for the preservation or restoration of biodiversity and its functions
- The significance and utilisation of biodiversity in sustainable societal development

Funds were distributed reasonably equally among the above themes. Apart from individual projects comprising a large number of postgraduate students and research assistants, three postdoctoral research centres and a number of national groups that are significant for research on biodiversity are also financed. If these special funds are granted regularly, Formas intends to continue support for a long-term build-up of knowledge to promote work on securing biodiversity. In this context it is essential to pay attention to an international perspective on these issues, so that these aspects also can be catered for.

Apart from the ear-marked extra funds for research on biological diversity, a range of other government and private funding agencies, organizations and companies also contribute to a substantial research activity on biological diversity and related disciplines.

Research on biodiversity funded by the Swedish Environmental Protection Agency includes evaluation of environmental effects of agricultural policies and economic incentives to farmers, development of sustainable management in forestry (including understanding of land owners' attitudes), development of wetland biodiversity conservation, development of management guidelines for costal zone biodiversity, development of prediction tools in environmental impact assessments, assessment of risks posed by introduced aquatic species. The Swedish Maritime Administration supports studies on new anti-fouling paints that are less toxic than traditional paints.

The research funds allocated to the Swedish Species Information Center have been used to establish the Swedish Taxonomy Initiative. This is a globally unique project, aiming at describing and presenting all multicellular organisms present in the country, approximately 60 000 species. The project includes taxonomy research, inventories and publishing of the findings. The organisms that can be identified without the help of advanced technical equipment, approximately 30 000 species, will be presented in a very large book project, The Swedish Flora and Fauna Encyclopedia, later to be followed by presentations in other media. The project is planned for a period of 20 years, starting in 2002.

Research supported through international development cooperation funds including e.g. action research through international and Southern-based research institutes. Biodiversity management and local livelihoods are focal disciplines open for applications from Swedish researchers to the research department of Sweden's international development cooperation agency, SAREC. Several bilateral and regional research programmes are supported which include strong aspects of conservation and sustainable use of biodiversity – not least in the marine sector.

| **90. ?** On Article 12(c), does your country promote and cooperate in the use of scientific advances in biological diversity research in developing methods for conservation and sustainable use of biological resources? | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

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

Some of the research projects achieved within the government initiative to support research on biological diversity (see Question 88) are applied, thus contributing in future to developing methods for practical use in biodiversity related work. About 1-2% of the research budget is also used for research communication (conferences, project database, brochures, books). There is however a great need for intensified communication of research results to implementing agencies, organizations and companies, as well as outright research cooperation between academic institutions and stakeholders.

Within the implementing agencies, such as the Swedish Environmental Protection Agency, research results are employed through different channels. First, SEPA, as a stakeholder, participates in many research projects and programmes, especially those funded by the agency. Second, many of the agency's senior officers are scientists (often with a doctoral degree). Third, the agency is regularly consulting the scientific community when developing guidelines and policies.

For Sweden's activities regarding international development cooperation, see Questions 88-89.

**Box LI.**

| Please elaborate below on the implementation of this article specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| c and d) In order to ensure the contribution of research towards the 2010 target, and the corresponding national targets, a number of scientific assessments have been performed or are under preparation. One example is an assessment of the quantity and quality of dead wood in boreal forests that is required to protect red-listed forest species.<br><br>A number of specialized research areas need further attention, e.g. on ways to value biological resources, as alternatives to the purely economical valuation, and on methods for implementing and monitoring sustainable use.<br><br>f) There is a need for interdisciplinary research, which has proven difficult to achieve. There is a growing concern that purely biological research will not be sufficient to provide the answers to conservation and sustainable use issues. Interdisciplinary research combining natural and social sciences may be better placed to produce results relevant to many stakeholders and implementing agencies. There are several challenges in this. First, the funding agencies need to revise their application and evaluation procedures to allow for more interdisciplinary and collaborative projects. Then there is the challenge to merge the academic cultures in terms of approaches, methods and terminology. A third challenge is the low status given to interdisciplinary and applied research in the academic society, leading to fewer funding and employment opportunities for researchers engaging in such activities. |

## Article 13 - Public education and awareness

| **91.** Is your country implementing a communication, education and public awareness strategy and promoting public participation in support of the Convention? (Goal 4.1 of the Strategic Plan) | |
|---|---|
| a) No | |
| b) No, but a CEPA strategy is under development | |
| c) Yes, a CEPA strategy developed and public participation promoted to a limited extent (please provide details below) | **X** |
| d) Yes, a CEPA strategy developed and public participation promoted to a significant extent (please provide details below) | |

| Further comments on the implementation of a CEPA strategy and the promotion of public participation in support of the Convention. |
|---|
| The Swedish government has presented its conservation policy in the white-paper "A Comprehensive Policy for Nature Conservation" (En samlad naturvårdspolitik, regeringens skrivelse 2001/02:173). The paper establishes the link between conservation and sustainable use, and elaborates on their implementation through the Environmental quality objectives. For the continued conservation work the government highlighted a number of issues, including:<br>• A strengthened dialogue with the citizens<br>• The importance of local community participation, and of nature in urban areas<br>• The importance of research, education and information |

To some extent there are ongoing measures to apply the policy within the implementation of the Environmental quality objectives, and a number of other activities, but there is no comprehensive CEPA strategy as such.

The SEPA Division of natural resources is now developing a communication strategy. Its central message is the value of biodiversity for recreation and quality of life and other ecosystem services. The strategy sets out methods for communicating the message through networking and e.g. by training staff at local authorities.

| **92.** Is your country undertaking any activities to facilitate the implementation of the programme of work on Communication, Education and Public Awareness as contained in the annex to decision VI/19? (decision VI/19) | |
|---|---|
| a) No | |
| b) No, but some programmes are under development | |
| c) Yes, some activities are being undertaken (please provide details below) | **X** |
| d) Yes, many activities are being undertaken (please provide details below) | |

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

The earlier national Programme for Local Investments for Sustainable Development (Lokala investeringsprogram LIP), as well as the current Program for Local Nature Conservation Projects (see question 83), includes the option for local authorities to apply for funds to build information and education projects.

| **93.** Is your country strongly and effectively promoting biodiversity-related issues through the press, the various media and public relations and communications networks at national level? (decision VI/19) | |
|---|---|
| a) No | |
| b) No, but some programmes are under development | |
| c) Yes, to a limited extent (please provide details below) | **X** |
| d) Yes, to a significant extent (please provide details below) | |

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

The Swedish Environmental Protection Agency web site and the CHM is used for public awareness purposes, and for making available information on policy frameworks and status and trends. It also provides guidance that promotes the sustainable utilisation of nature sites through e.g. tourism.

The Swedish Maritime Administration provides information to journalists who write about or send radio programmes about the introduction of alien species with ship´s ballast including information about of the International Convention for the Control and Management of Ship´s Ballast Water and Sediments and the development of guidelines that support the convention. Information is also provided to whom it may concern when it comes to emissions to air from ships and antifouling as well as any other relevant environmental issues.

Similar information acitivites can be found in most government agencies.

The Swedish Flora and Fauna Encyclopedia (see Question 89), is aimed at giving the public access to information on the majority of the species occurring in Sweden, and in many cases in all nordic

countries. The Swedish Species Information Centre is also making information about species available through other books, websites, seminars etc.

| **94.** Does your country promote the communication, education and public awareness of biodiversity at the local level? (decision VI/19) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

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

Most of the education at the local level is provided by the compulsory and upper secondary schools. The syllabi of all schools contain explicit sections on biological diversity:

**Compulsory school Biology syllabus:**

*Aim of the subject and its role in education*

The subject of Biology aims at describing and explaining nature and living organisms from a scientific perspective. At the same time the education should consolidate the fascination and joy of discovery and Man's wonder and curiosity in all that is living. The subject also aims at making knowledge and experiences usable to promote concern and respect for nature and one's fellow men.

*Structure and nature of the subject*

Four central dimensions characterise the approach of the subject of biology: ecosystem, biological diversity, cells and the human being. In all these four dimensions, a knowledge of biology is useful in connection with existential issues, which concern both the individual and society as a whole.

*Biological diversity*

The subject presents the way in which the biological sciences organise and systematise the diversity of nature. Fundamental starting points are theories about the ecosystem and evolution, as well as knowledge of different species and a knowledge of the living conditions and relations between plants and animals.

Everyday experience of diversity in nature is often ethical or aesthetic and expressed, for example, in different forms of environmental involvement. One of the most important contributions biology can make to studying Man's relationship with nature is thus to show the diversity of forms of life from scientific, aesthetic and ethical perspectives.

**Upper secondary school Science Studies syllabus:**

Pupils should:

have developed their knowledge about the structure and dynamics of the ecosystem, as well as the importance of biological diversity.

Local community councils also provide relevant information on biological diversity. As an example, the City of Gothenburg has developed a database on the occurrence of animal and plant species within the city. The database mainly contains information on threatened species, and the main purpose was to support planning for conservation, but also to increase awareness about biodiversity among the citizens. At present the database contains ca 4500 observations of 567 species, which will be available to e.g. local schools.

Despite activities as described above, there is a widespread view that the general public has not reached a very high level of awareness and knowledge about biological diversity, conservation and sustainable use, and the CBD.

**95.** Is your country supporting national, regional and international activities prioritized by the

| Global Initiative on Education and Public Awareness? (decision VI/19) | |
|---|---|
| a) No | **X** |
| b) No, but some programmes are under development | |
| c) Yes, some activities supported (please provide details below) | |
| d) Yes, many activities supported (please provide details below) | |

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

Support provided by the Swedish international development cooperation agency to CEPA-related activities is generally not guided by priorities in the Global Initiative per se, rather depends on national priorities and needs.

| **96.** Has your country developed adequate capacity to deliver initiatives on communication, education and public awareness? | |
|---|---|
| a) No | |
| b) No, but some programmes are under development | |
| c) Yes, some programmes are being implemented (please provide details below) | **X** |
| d) Yes, comprehensive programmes are being implemented (please provide details below) | |

Further comments on the development of adequate capacity to deliver initiatives on communication, education and public awareness.

| **97.** Does your country promote cooperation and exchange programmes for biodiversity education and awareness at the national, regional and international levels? (decisions IV /10 and VI/19) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

Further comments on the promotion of cooperation and exchange programmes for biodiversity education and awareness, at the national, regional and international levels.

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

Further comments on the CEPA activities for implementation of cross-cutting issues and thematic

| programmes of work adopted under the Convention. |
|---|
| |

| **99.** ? Does your country support initiatives by major groups, key actors and stakeholders that integrate biological diversity conservation matters in their practice and education programmes as well as into their relevant sectoral and cross-sectoral plans, programmes and policies? (decision IV/10 and Goal 4.4 of the Strategic Plan) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |
| Further comments on the initiatives by major groups, key actors and stakeholders that integrate biodiversity conservation in their practice and education programmes as well as their relevant sectoral and cross-sectoral plans, programmes and policies. | |
| | |

| **100.** Is your country communicating the various elements of the 2010 biodiversity target and establishing appropriate linkages to the Decade on Education for Sustainable Development in the implementation of your national CEPA programmes and activities? (decision VII/24) | |
|---|---|
| a) No | |
| b) No, but some programmes are under development | |
| c) Yes, some programmes developed and activities undertaken for this purpose (please provide details below) | **X** |
| d) Yes, comprehensive programmes developed and many activities undertaken for this purpose (please provide details below) | |
| Further comments on the communication of the various elements of the 2010 biodiversity target and the establishment of linkages to the Decade on Education for Sustainable Development. | |
| Awareness of 2010 target is promoted at the national CHM web site. Plans are being made for using the contents of the third national CBD report as a basis for an information campaign that raises awareness of biodiversity and the 2010 target among sectors and stakeholders. | |

**Box LII.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Article 14 - Impact assessment and minimizing adverse impacts

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

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

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

There is Swedish legislation in place regulating projects that are likely to have a significant on biological diversity. For activities and measures that may have an significant effect on biological diversity within protected areas of the Natura 2000 network there is an explicit demand for EIAs to be performed. This also applies to all environmentally hazardous projects, water regulating activities, and to gravel extraction and similar activities. In such cases the EIA shall contain assessment of possible risks to the environment and biological diversity.

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

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

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

Swedish legislation addresses the effect of plans and policies on biological diversity. Whenever there is reason to believe that a new plan or programme to be established by an authority may cause a significant effect on the environment, an EIA is mandatory.

Within Sweden's international development cooperation elaborate guidelines, including biodiversity aspects, have been developed by Sida, including a mandatory process for carrying out EIAs of all projects/programmes and SEAs of strategies/polices.

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

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

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

Sweden is party to the Esbo Convention (Convention of Environmental Impact Assessment in a transboundary context), and to the Helsinki Convention (Convention on the protection of the marine environment of the Baltic Sea). These conventions stipulate the establishment of mechanisms for notification on projects that may have transboundary effects, and the for neighbouring countries right to participate in the EIA process.

| **104.** ? On Article 14.1(d), has your country put mechanisms in place to prevent or minimize danger or damage originating in your territory to biological diversity in the territory of other Parties or in areas beyond the limits of national jurisdiction? | |
|---|---|
| a) No | |
| b) No, mechanisms are still in early stages of development | |
| c) No, but mechanisms are in advanced stages of development | |
| d) Yes, mechanisms are in place based on current scientific knowledge | **X** |

| **105.** ? On Article 14.1(e), has your country established national mechanisms for emergency response to activities or events which present a grave and imminent danger to biological diversity? | |
|---|---|
| a) No | |
| b) No, mechanisms are still in early stages of development | |
| c) No, but mechanisms are in advanced stages of development | |
| d) Yes, mechanisms are in place (please provide details below) | **X** |

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

| **106.** Is your country applying the Guidelines for Incorporating Biodiversity-related Issues into Environment-Impact-Assessment Legislation or Processes and in Strategic Impact Assessment as contained in the annex to decision VI/7 in the context of the implementation of paragraph 1 of Article 14? (decision VI/7) | |
|---|---|
| a) No | |
| b) No, but application of the guidelines under consideration | |
| c) Yes, some aspects being applied (please specify below) | **X** |
| d) Yes, major aspects being applied (please specify below) | |

Further comments on application of the guidelines.

The Swedish Biodiversity Centre has, as a government assigment, performed an analysis of the Swedish implementation of the CBD Guidelines (see www.cbm.slu.se). The analysis showed that most of the guidelines have been applied in the legislation. However, IEAs are mandatory only for projects causing significant impact, and requirements on monitoring and auditing are missing. The guidelines have been applied in a small proportion of EIAs actually performed (about 15 %). So far, there are has been no evaluation of the implementation of the guidelines in Strategic Impact Assessments.

| **107.** On Article 14 (2), has your country put in place national legislative, administrative or policy measures regarding liability and redress for damage to biological diversity? (decision VI/11) | |
|---|---|
| a) No | **X** |

| | |
|---|---|
| b) Yes (please specify the measures) | |

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

Sweden is currently working with the transposition, and further implementation, of the EC Directive on environmental liability with regard to the prevention and remedying of environmental damage (2004/35). This EU Directive also covers biodiversity (at least in some extent).

**108.** Has your country put in place any measures to prevent damage to biological diversity?

| | |
|---|---|
| a) No | |
| b) No, but some measures are being developed | |
| c) Yes, some measures are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures are in place (please provide details below) | |

Further information on the measures in place to prevent damage to biological diversity.

**109.** Is your country cooperating with other Parties to strengthen capacities at the national level for the prevention of damage to biodiversity, establishment and implementation of national legislative regimes, policy and administrative measures on liability and redress? (decision VI/11)

| | |
|---|---|
| a) No | |
| b) No, but cooperation is under consideration | |
| c) No, but cooperative programmes are under development | |
| d) Yes, some cooperative activities being undertaken (please provide details below) | **X** |
| e) Yes, comprehensive cooperative activities being undertaken (please provide details below) | |

Further comments on cooperation with other Parties to strengthen capacities for the prevention of damage to biodiversity.

Sweden cooperates with the other European Union members in the development and implementation of relevant legislation, e.g. the Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004 on environmental liability with regard to the prevention and remedying of environmental damage.

Sweden's international development cooperation has supported several activities:

- international EIA training course (including biodiversity aspects) in Sweden, and regional and national EIA training courses in developing countries.
- development of EIA-procedures and mechanisms (including consideration of biodiversity aspects) is part of bilateral support to national environment agencies in several countries (e.g. Laos and Vietnam).
- activities at international and regional NGOs and action research institutes.
- International PhD programme on environmental economics and SEA.

**Box LIII.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Article 15 - Access to genetic resources

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

| | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | **X** |

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

Yes, Sweden has facilitated access to our genetic resources according to a decision made by the government in 2003.By recommendation of the Nordic Council of Ministers (Ministerial Declaration, see below), the government decided that access to all plant genetic material of Swedish origin in Nordic Gene Bank (NGB) is free, and that the administration of them should be shared by all the Nordic countries. This material shall also be included in any multilateral system for access and benefit-sharing (e.g. in ITPGRFA). There are no restrictions covering the access to wild genetic resources. Private collections are however private property.

No, since there is no access legislation or legislation regulating PIC, MAT or benefit-sharing.

Sweden has, in cooperation with the other Nordic countries within the Nordic Council of Ministers, adopted a number of strategies regarding ABS, e.g.:

- A nordic approach to Access and Rights to Genetic resources
- Nordic Ministerial Declaration on Access and Rights to Genetic Resources 2003
- A strategy for genetic resources for fisheries, agriculture, forestry and food 2005-2008.

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

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

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

The Swedish international development cooperation agency (Sida) has adopted a policy that requires the establishment of a material transfer agreement (MTA) for financing research cooperation activities involving genetic material.

See Question 112.

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

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

Further information on the type of measures taken.

Sweden has so far not taken any initiatives to regulate the access to our genetic resources. The Swedish position is that plant and other genetic resources should be available with a minimum of bureaucracy and restrictions. Sweden has implemented the European Union Directive 98/44/EG on legal protection of biotechnological inventions. Sweden is party to the UPOV 1991 Convention, the European Patent Convention, and member of WIPO. Sweden holds the position that intellectual property rights are important incentives for research and development of innovations. Sweden has thus ratified the International Treaty on Plant Genetic Resources for Food and Agriculture, and believes that there is no need for new or amended legislation to implement the Treaty. Sweden would strive for all crops to be included in a Multilateral System for facilitated access and benefit sharing.

During 2004 Sweden actively participated in the EU discussions on disclosure of origin of genetic resources and associated traditional knowledge in patent applications. An EU proposal on a mandatory disclosure requirement in patent applications (as a formal condition) was adopted by EU and submitted to WIPO in December 2004. The current Swedish Patent legislation (Patentkungörelse 1967:838) requires that the origin of the genetic resources used in an invention shall be disclosed in patent applications. If the origin is unknown it should be indicated. The failure to provide this information does not affect the handling of the patent application by the authorities or the rights conferred by a patent. The requirement does not, however, have any material effects on e.g. the validity of granted patents.

The Swedish Advisory Board of Gene Technology, and others, have argued for the soonest possible solution of these difficult questions. As long as there is no benefit sharing, we have seen and will see a drastic reduction in the global exchange of biological material between countries, and that will mean a serious drawback for all parties in developing as well as developed countries.

| **113.** In developing national measures to address access to genetic resources and benefit-sharing, has your country taken into account the multilateral system of access and benefit-sharing set out in the International Treaty on Plant Genetic Resources for Food and Agriculture? | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | |

Further information on national measures taken which consider the multilateral system of access and benefit-sharing as set out in the International Treaty on Plant Genetic Resources for Food and Agriculture.

Sweden signed the treaty in 2002.

See Questions 110 and 112.

A preliminary and so far informal debate has started in Sweden among research funding bodies regarding the need for Material Transfer Agreements when Swedish scientists collect biological matter, and related information, on the territory of other sovereign states who have signed and ratified the CBD and other treaties with regulatory implications for use of biological matter.

| **114.** Is your country using the Bonn Guidelines when developing and drafting legislative, administrative or policy measures on access and benefit-sharing and/or when negotiating contracts and other arrangements under mutually agreed terms for access and benefit-sharing? (decision VII/19A) | |
|---|---|
| a) No | **X** |
| b) No, but steps being taken to do so (please provide details below) | |
| c) Yes (please provide details below) | |

Please provide details and specify successes and constraints in the implementation of the Bonn Guidelines.

See Question 113.

The botanic gardens in Europe have during the last year further developed their Access and Benefit Sharing system IPEN, which will be implemented in Sweden next year. The system has been recognised in CBD circles as a “best practice” example, for handling plant exchange in a pragmatic way that is yet fully in accordance with the letter and spirit of the CBD.

| **115.** Has your country adopted national policies or measures, including legislation, which address the role of intellectual property rights in access and benefit-sharing arrangements (i.e. the issue of disclosure of origin/source/legal provenance of genetic resources in applications for intellectual property rights where the subject matter of the application concerns, or makes use of, genetic resources in its development)? | |
|---|---|
| a) No | |
| b) No, but potential policies or measures have been identified (please specify below) | |
| c) No, but relevant policies or measures are under development (please specify below) | **X** |
| d) Yes, some policies or measures are in place (please specify below) | |

| | |
|---|---|
| e) Yes, comprehensive policies or measures adopted (please specify below) | |

Further information on policies or measures that address the role of IPR in access and benefit-sharing arrangements.

Se Questions 110 and in particular 112.

**116.** Has your country been involved in capacity-building activities related to access and benefit-sharing?

| | |
|---|---|
| a) Yes (please provide details below) | **X** |
| b) No | |

Please provide further information on capacity-building activities (your involvement as donor or recipient, key actors involved, target audience, time period, goals and objectives of the capacity-building activities, main capacity-building areas covered, nature of activities). Please also specify whether these activities took into account the Action Plan on capacity-building for access and benefit-sharing adopted at COP VII and available in annex to decision VII/19F.

The Swedish international development cooperation agency (Sida) prioritizes support work relating to fair and equitable sharing of benefits arising from the use of genetic resources and traditional knowledge. This includes support to the development of mechanisms that ensure compensation to those who have developed and preserved genetic resources and traditional knowledge, which now is used commercially. Sida works to increase the participation of governments, NGOs etc in developing countries in the international policy work related to genetic resources and ABS. The main objectives generally are to increase knowledge and understanding of the international processes and issues, to build capacity to develop national frameworks and legislations, allow for increased civil society participation, and ensure a broad variety of positions and opinions to be heard in the international discussions.

Together with the Swedish Biodiversity Centre, Sida has started The Swedish International Biodiversity programme (SwedBio). SwedBio supports ABS-related work in different organisations (eg: GRAIN, CBDC, Third World Network, ETC-group and African biodiversity network).

Sida has supported a number of capacity-building initiative linked to ABS, for example:

- Advanced International Training Programme “Genetic Resources and Intellectual Property Rights-Pathways for development”, Svalöf, Sweden, spring 2003 ad Spring 2004. Programme arranged by the Stockholm Environment Institute, the Swedish Biodiversity Centre and Svalöf Weibull ABTwo-week international training course on IPR and genetic resources (in Sweden)
- Addressed within regional gene bank initiatives (South Africa, East Africa, Balkans) and bio-technology initiative (BioEarn in Africa)
- Support to a number of NGOs and farmers organizations working on seed supply systems, IPR-issues and genetic policy (GRAIN, ETC Group, Third World Network, etc)
- Support to indigenous organizations to develop their positions and participate in key meetings.
- Direct support to participation by civil society in key meetings and events.
- Support to instrumental international non-governmental organizations such as the World Conservation Union (IUCN), World Resources Institute (WRI), International Institute for Environment and Development (IIED) etc.
- Support to international agricultural research through the Consultative Group on Internatioanl Agricultural Research (CGIAR).
- Support to the group Crucible II, 1994-2001, which aims to develop options for developing countries within the revision of WTO’s agreement on trade-related immaterial property rights (TRIPS) regarding protection of biological innovations and traditional knowledge, and access to genetic resources and traditional knowledge.

**Box LIV.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| The implementation of this article is problematic, with many strong voices pointing to serious effects. The CBD GTI Focal point in Sweden argues that "the present situation of restricted access to genetic resources and related information, implemented in a growing number of CBD parties, coupled with the lack of a comprehensive multilateral clearing house mechanism, constitutes a serious impediment to the development of taxonomic support to the implementation of CBD. The activities of museums, botanical gardens, academic institutions and individual taxonomists worldwide are severely curtailed. This CBD article, with the noblest intentions, has introduced bureaucracy, inflated expectations concerning the value of biological specimens, and general mistrust, while so far achieving very little true benefit sharing." |

## Article 16 - Access to and transfer of technology

| **117.** ? On Article 16(1), has your country taken measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biological diversity or make use of genetic resources and do not cause significant damage to the environment? | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures are in place (please provide details below) | |
| Further information on the measures to provide or facilitate access for and transfer to other Parties of technologies that are relevant to the conservation and sustainable use of biodiversity or make use of genetic resources and do not cause significant damage to the environment. | |
| See Boxes XXII and XXIII. | |

| **118.** ? On Article 16(3), has your country taken measures so that Parties which provide genetic resources are provided access to and transfer of technology which make use of those resources, on mutually agreed terms? | |
|---|---|
| a) No | **X** |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place | |
| d) Yes, comprehensive legislation is in place | |
| e) Yes, comprehensive statutory policy or subsidiary legislation are in place | |
| f) Yes, comprehensive policy and administrative arrangements are in place | |

| | |
|---|---|
| g) Not applicable | |

| **119.** On Article 16(4), has your country taken measures so that the private sector facilitates access to joint development and transfer of relevant technology for the benefit of Government institutions and the private sector of developing countries? | |
|---|---|
| a) No | **X** |
| b) No, but potential measures are under review | |
| c) Yes, some policies and measures are in place (please provide details below) | |
| d) Yes, comprehensive policies and measures are in place (please provide details below) | |
| e) Not applicable | |
| Further information on the measures taken. | |
| | |

**Box LV.**

| Please elaborate below on the implementation of this article specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Programme of Work on transfer of technology and technology cooperation

| **120.** Has your country provided financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation? (decision VII/29) | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some programmes being implemented (please provide details below) | **X** |
| d) Yes, comprehensive programmes being implemented (please provide details below) | |
| Further comments on the provision of financial and technical support and training to assist in the implementation of the programme of work on transfer of technology and technology cooperation. | |
| Support through Swedish development cooperation in this area is not specifically aimed at implementing the work programme (most biodiversity related support through Swedish development cooperation is not aimed at implementing the work programmes under CBD per se, even if they often are more or less in line with the work programmes). There are however relevant activities, including:<br>• The biotechnology and biosafety programme BioEARN in Africa.<br>• Several components within the regional gene bank programmes.<br>• Components of the support through the CGIAR-system. | |

Swedish biological museums by means of numerous loans from the collections and by means of reception of visiting scientists and other international scientific cooperation contribute to the transfer of technology and technology cooperation. SIDA earlier supported the Swedish Museum of Natural History in a five year program for capacity building in respect to establishing, maintaining and curating national biological collections in the Paraguay Natural History Museum. Further such programmes are needed to deliver appropriate support to developing countries in this respect.

Similarly, there is a wide activity of academic cooperation between Swedish universities and their counterparts in developing countries.

See also Question 30.

| **121.** Is your country taking any measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation? (decision VII/29) | |
|---|---|
| a) No | **X** |
| b) No, but some measures being considered | |
| c) Yes, some measures are in place (please provide details below) | |
| d) Yes, comprehensive measures are in place (please provide details below) | |

Further comments on the measures to remove unnecessary impediments to funding of multi-country initiatives for technology transfer and for scientific and technical cooperation.

There has been no assessment of such impediments.

| **122.** Has your country made any technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building? (annex to decision VII/29) | |
|---|---|
| a) No | **X** |
| b) No, but assessments are under way | |
| c) Yes, basic assessments undertaken (please provide details below) | |
| d) Yes, thorough assessments undertaken (please provide details below) | |

Further comments on technology assessments addressing technology needs, opportunities and barriers in relevant sectors as well as related needs in capacity building.

| **123.** Has your country made any assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies? (annex to decision VII/29) | |
|---|---|
| a) No | |
| b) No, but assessments are under way | |

| | |
|---|---|
| c) Yes, some assessments undertaken (please provide details below) | **X** |
| d) Yes, comprehensive assessments undertaken (please provide details below) | |

Further comments on the assessments and risk analysis of the potential benefits, risks and associated costs with the introduction of new technologies.

The technology of genetically modified organisms has been the object of extensive assessments and risk analyses, resulting in rigorous national and European legislation regulating the use of such technology.

**124.** Has your country identified and implemented any measures to develop or strengthen appropriate information systems for technology transfer and cooperation, including assessing capacity building needs? (annex to decision VII/29)

| | |
|---|---|
| a) No | **X** |
| b) No, but some programmes are under development | |
| c) Yes, some programmes are in place and being implemented (please provide details below) | |
| d) Yes, comprehensive programmes are being implemented (please provide details below) | |

Further comments on measures to develop or strengthen appropriate information systems for technology transfer and cooperation.

**125.** Has your country taken any of the measures specified under Target 3.2 of the programme of work as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention? (annex to decision VII/29)

| | |
|---|---|
| a) No | |
| b) No, but a few measures being considered | |
| c) Yes, some measures taken (please specify below) | **X** |
| d) Yes, many measures taken (please specify below) | |

Further comments on the measures taken as a preparatory phase to the development and implementation of national institutional, administrative, legislative and policy frameworks to facilitate cooperation as well as access to and adaptation of technologies of relevance to the Convention.

There has been no formal process of implementing Target 3.2, but some of the activities and results foreseen in the target have been achieved through other processes.

**Box LVI.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Article 17 - Exchange of information

| **126.** ? On Article 17(1), has your country taken measures to facilitate the exchange of information from publicly available sources with a view to assist with the implementation of the Convention and promote technical and scientific cooperation? | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place | |
| d) Yes, comprehensive measures are in place | **X** |

***The following question (127) is for DEVELOPED COUNTRIES***

| **127.** ? On Article 17(1), do these measures take into account the special needs of developing countries and include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on? | |
|---|---|
| a) No | |
| b) Yes, but they do not include the categories of information listed in Article 17(2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on | |
| c) Yes, and they include categories of information listed in Article 17 (2), such as technical, scientific and socio-economic research, training and surveying programmes, specialized knowledge, repatriation of information and so on | **X** |

**Box LVII.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals; |
|---|

f) constraints encountered in implementation.

GBIF and FishBase are major facilities for "repatriation of information". The Swedish Science Research Council supports Swedish participation in GBIF on a short-term contract. Funding needs to be secured for the long-term operation of GBIF. Funding also needs to be secured for intensified efforts to digitize data from globally acquired collections in Swedish Natural History Museums.

## Article 18 - Technical and scientific cooperation

**128.** ? On Article 18(1), has your country taken measures to promote international technical and scientific cooperation in the field of conservation and sustainable use of biological diversity?

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

Further information on the measures to promote international technical and scientific cooperation.

The larger part of funds available to research on biological diversity and related disciplines is distributed by a few major governmental organizations, including Sida-SAREC (Sida's research department, the Swedish Research Council (Vetenskapsrådet) and Swedish Research Council for Environment, Agricultural Sciences and Spatial Planning (Formas). Sweden functions in an increasingly globalised world where more knowledge is needed on how democracy, welfare and human rights shall be secured both inside and outside Sweden. The global environmental threats, for instance climate change, and loss of biodiversity and ecosystem services, demand large scale international efforts and a highly developed research cooperation among countries. Sweden should contribute to the global body of knowledge through internationally outstanding research in order that new and urgently needed knowledge should be developed in these important areas. Sweden should also, in important areas, be a resource-rich partner in the research cooperation with countries in the southern hemisphere.

***Collaboration within Europe***

Sweden is a member of EU and takes an active part in European research cooperation, for example via the EPBRS (European Platform for a Biodiversity Research Strategy). One of the main Swedish actors in this is Formas, for which European research cooperation is a prioritised activity. It is a matter of both the mandates given by the government and Riksdag to support Swedish participation in different EU bodies, and active promotion of participation by Swedish researchers in the framework programme for research. At present, Swedish is having an input within the 6th framework programme in Food Safety (priority No 5) and Global Change and Ecosystems (priority No 6.3). Formas took an active part in the preparation of the 6th framework programme, and expects to participate actively to the same extent in the development of the 7th framework programme.

It is considered that the participation of Formas within the framework of European Research Area – ERA net – will increase over the next few years. One example is cooperation in marine environmental research with the Baltic countries, another cooperation within the forestry sector to promote wood as a raw material in industry. Formas is continuing this cooperation with the focus on both the research policy consultation that is taking place there, and the cooperative platforms within different areas of research and international conference activity.

***Cooperation with the southern hemisphere***

The main part of Swedish support to research in developing countries is provided through Sida-SAREC. This includes (but is not limited) support to:

- The Consultative Group on International Agricultural Research (CGIAR) wehich consists of 16 research institutes with diverse mandates related to research on agriculture, forestry and fisheries.
- Regional research programmes in e.g. East Africa (eg on dryland bioidversity)
- International and regional action and policy research institutes
- A large number of initiative focusing on marine and coastal research, including e.g. CORDIO in EaST Africa, WIOMSA and other marine initiatives.
- Research on sustainable forest management, e.g. in Africa.

Sida-SAREC further provides opportunities (through a so called ”invitation area” ) for Swedish researchers to apply for funds regarding multi-disciplinary research on bioidversity-livelihood linkages in developing countries.

Sida-SAREC further collaborates with the other major governmental research organisations, including e.g. FORMAS.

***International organisations***

During 2003, Formas carried out an evaluation of Swedish participation in the International Institute for Applied Systems Analysis (IIASA) near Vienna, which has around 15 member countries. The evaluation finds that there is limited interest in IIASA within the Swedish researcher community, but in spite of this it recommends participation for a further period.

In addition to the large funding agencies, several sectoral government agencies support research cooperation, e.g. the Swedish Maritime Administration and the National Board of Fisheries. Potential measures are under review to promote regional technical and scientific cooperation within the framework of the International Convention for the Control and Management of Ship's Ballast Water and Sediments as well as the (EC) Regulation No. 782/2003 of the European Parliament and of the Council of 14 April 2003 on the prohibition of organotin compound on ships. The Board of Fisheries participates in an interregional project to identify habitats in the Baltic Sea with a high ecological value. There is an EU project on marine protected areas. Other projects concern habitat characterization by the use of remote sensing, and the development of seal safe fishing gear in the Nordic Council of Ministries.

| **129.** ? On Article 18(4), has your country encouraged and developed methods of cooperation for the development and use of technologies, including indigenous and traditional technologies, in pursuance of the objectives of this Convention? | |
|---|---|
| a) No | |
| b) No, but relevant methods are under development | **X** |
| c) Yes, methods are in place | |

| **130.** ? On Article 18(5), has your country promoted the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention? | |
|---|---|
| a) No | |
| b) Yes (please provide some examples below) | **X** |

| Examples for the establishment of joint research programmes and joint ventures for the development of technologies relevant to the objectives of the Convention. |
|---|
| See Question 128. |

| **131.** Has your country established links to non-governmental organizations, private sector and other institutions holding important databases or undertaking significant work on biological diversity through the CHM? (decision V/14) | |
|---|---|
| a) No | |
| b) No, but coordination with relevant NGOs, private sector and other institutions under way | |
| c) Yes, links established with relevant NGOs, private sector and institutions | **X** |

***The following question (132) is for DEVELOPED COUNTRIES***

| **132.** Has your country further developed the CHM to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation? (decision V/14) | |
|---|---|
| a) No | **X** |
| b) Yes, by using funding opportunities | |
| c) Yes, by means of access to, and transfer of technology | |
| d) Yes, by using research cooperation facilities | |
| e) Yes, by using repatriation of information | |
| f) Yes, by using training opportunities | |
| g) Yes, by using promotion of contacts with relevant institutions, organizations and the private sector | |
| h) Yes, by using other means (please specify below) | |

| Further comments on CHM developments to assist developing countries and countries with economies in transition to gain access to information in the field of scientific and technical cooperation. |
|---|
| The Swedish Clearing House Mechanism is presently not developed with the above aim, but all the above activities b-g have been addressed through other means. |

| **133.** Has your country used CHM to make information available more useful for researchers and decision-makers? (decision V/14) | |
|---|---|
| a) No | |
| b) No, but relevant initiatives under consideration | **X** |
| c) Yes (please provide details below) | |

| Further comments on development of relevant initiatives. |
|---|
| The larger part of funds available to research on biological diversity and related disciplines is distributed by a few major governmental organizations, including the Swedish Research Council (Vetenskapsrådet) and Swedish Research Council for Environment, Agricultural Sciences and Spatial |

Planning (Formas). The policies on information dissemination adopted by these agencies hence can be seen as Sweden's national policy in this field. Reproduced below are excerpts from the Formas policy:

**Research information and communication**

The overarching goal of research information and communication is to contribute to the creation of a society consisting of informed citizens capable of critical thinking. Knowledge is a prerequisite for growth and welfare in society. Knowledge in a broad sense is also the basis for the quality of life of individuals and for public participation. Scientific knowledge is essential if the public and politicians are to be able to form an opinion regarding future issues of critical importance, such as climate changes, population changes, technological development and, in particular, sustainable development. The prospects for the development of research communication in Sweden are very favourable. There is both interest in research news and trust in researchers on the part of the media and the public; there is a high educational level, openness and transparency in the publicly financed research, and willingness for dialogue within the research community. But in spite of these prospects, which are favourable in an international comparison, this dialogue is under threat today, mainly because of the lack of resources for Swedish research.

The rapid advance of research contributes to development and increased welfare, but it also gives rise to unease and doubt. It is therefore essential that there should be a well functioning dialogue among researchers, research funding agencies, the recipients of research results and a broad public concerning overarching research policy, ethics and issues to do with the relationship between research and society. Examples, which illustrate that the issues of research extend far beyond the scientific community, are research on genetically modified organisms (GMO), climate, energy issues and other issues where ethics and value judgments play a critical role.

The good trust, which the public and politicians today have in research, may however prove to be brittle. This is shown by international experiences regarding highly publicised phenomena, such as mad cow disease (BSE) and genetically modified organisms. Both the behaviour of researchers themselves and the lack of objectivity and sensationalism of the mass media can affect this trust. For a research council such as Formas, which supports both fundamental research and research undertaken in response to a perceived need, the trust placed in research by sectors/industries is of critical importance. If the business community gets the impression that Swedish research is of insufficiently high quality, or that it is concerned only with research that business does not regard as "useful" even in the long run, this would be serious.

Formas accords priority to

- communication of research results so that they are applied and provide benefits for society
- creation of platforms for a dialogue between research and practice
- support for the information dissemination task of universities

***Research communication - a matter of resources***

For the research councils and VINNOVA, the provision of research information is a specific part of their activity as laid down by the government and Riksdag. Within the research areas of Formas, researchers can freely compete for external funds for information. Researchers have a basically favourable attitude to communicating their research to groups outside the scientific community. Owing to changes in research finance, in combination with the expansion of higher education, the "third task" that forms part of the terms of reference of universities – to have external contacts and to provide information on their work - has become an extra task, which is accorded little importance. Communication with external funding agencies and cooperative partners works reasonably well, since this provides immediate incentive for the individual researchers also. But if he/she is to be able to prioritise work on communication with broad target groups, this needs incentive, time and resources.

Even though resources are of critical importance, there are other factors that are significant. One such issue is the appraisal of CVs when applications for teaching posts are considered. According to the University Ordinance, "ability to cooperate with society at large and to provide information on research and development work" is a point in favour of an applicant for a teaching post in the universities. There are no up to date studies to show to what extent this is taken into account in practice. It is however the general impression that work on research communication is only in exceptional cases accorded any importance when applications are considered.

There are also a number of structural obstacles. Owing to professionalisation and specialisation in the

scientific community, there is an increasing gulf between science and the general public. Much of the popular educational tradition of the nineteenth century and the beginning of the twentieth century has been lost. The joint investment by the research forums, the research councils and VINNOVA in the campaign "The new biology" is an attempt to revive this tradition in new forms.

***The communication strategy of Formas***

In cooperation with the players in the fields of the environment, agricultural industries and spatial planning, Formas shall be instrumental in ensuring that research based knowledge will be applied and prove useful, and in making the results of research easily accessible. The players within the sphere of responsibility of Formas are a highly diverse group with very different knowledge and competence needs. This places high demands on the information activity of Formas in developing and communicating the right product, to the right target group, at the right time, in the right way and at the right price. However, if research results are to have general application and practical use, this is absolutely essential. Priorities are based on human needs for knowledge. Within the framework of this overarching goal, Formas accords priority to the production of popular scientific summaries and to giving the players in the fields of the environment, agricultural industries and spatial planning the research based knowledge, which they need to solve existing problems and to prevent future problems. On the other hand, Formas shall not be prescriptive.

Researchers are the key people in the work on research communication. Most researchers both want to, and can, work on research communication provided they have adequate conditions for this. In this respect, Formas can stimulate and support researchers by providing, in cooperation with other funding agencies, a good infrastructure and platforms for communication nationally and internationally. The research community is also an important target group where the responsibility of Formas for information can however be mainly limited to making current work on R&D programmes and information on ongoing research and research results readily available.

The mass media and other opinion formers such as politicians and non-profit making organisations are strategic players. Through these, r&d results can be made visible to a broad public, and a market can be created for the results. The interest of the media for research news has appreciably increased in recent years, and surveys (Eurobarometer) indicate that the media, primarily TV, is the most important channel for research communication to the general public.

| **134.** Has your country developed, provided and shared services and tools to enhance and facilitate the implementation of the CHM and further improve synergies among biodiversity-related Conventions? (decision V/14) | |
|---|---|
| a) No | **X** |
| b) Yes (please specify services and tools below) | |
| Further comments on services and tools to enhance and facilitate the implementation of CHM and further improve synergies among biodiversity-related Conventions. | |
| | |

**Box LVIII.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Article 19 - Handling of biotechnology and distribution of its benefits

| **135.** ? On Article 19(1), has your country taken measures to provide for the effective participation in biotechnological research activities by those Contracting Parties which provide the genetic resources for such research? | |
|---|---|
| a) No | **X** |
| b) No, but potential measures are under review | |
| c) Yes, some measures are in place | |
| d) Yes, comprehensive legislation are in place | |
| e) Yes, comprehensive statutory policy and subsidiary legislation are in place | |
| f) Yes, comprehensive policy and administrative measures are in place | |

| **136.** ? On Article 19(2), has your country taken all practicable measures to promote and advance priority access by Parties, on a fair and equitable basis, to the results and benefits arising from biotechnologies based upon genetic resources provided by those Parties? | |
|---|---|
| a) No | |
| b) No, but potential measures are under review | **X** |
| c) Yes, some measures are in place | |
| d) Yes, comprehensive measures are in place | |

**Box LIX.**

| Please elaborate below on the implementation of this article and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| Sweden has ratified the Biosafety protocol and is taking action in order to secure that its legal base reflects the provisions of EU regulation 1946/2003. |

# Article 20 – Financial resources

**Box LX.**

| Please describe for each of the following items the quantity of financial resources, both internal and external, that have been utilized, received or provided, as applicable, to implement the Convention on Biological Diversity, on an annual basis, since your country became a Party to the Convention. | |
|---|---|
| a) Budgetary allocations by national and local Governments as well as different sectoral ministries | The national programme for local investments for sustainable development (Lokala investeringsprogram LIP). A total of 195 conservation and sustainable use projects were awarded 400 million SEK in government grants 1997-2000, corresponding to 100 million SEK per year.<br><br>The Swedish Environmental Protection Agency receives substantial amounts (ca 1700 million SEK in 2005) to fund conservation activities, including the establishment and management of protected areas, liming, action plans for certain species. This grant includes the governmental program on Local Nature Conservation Projects is running right now (2004-2006). It comprises a total of 300 million SEK during the three years. This sum should be matched by co-financing from other local or regional sources.<br><br>In addition to that it is agrant of 30 million SEK for environmental monitoring regarding biological diversity.<br><br>The Swedish Environmental Protection Agency also allocates ca 80 million SEK annually, using its basic government grant.<br><br>The government research funding agencies allocate ca 120 million SEK per year to support research on biodiversity. The Swedish Environmental Protection Agency annually distributes ca 25 million SEK to research on nature conservation issues.<br><br>The 21 County Administrations allocated 334 million SEK to environmental work in 2002, of which a third concerns nature conservation.<br><br>A grant of ca 160 million SEK (2005) is allocated, via grants to the Forestry Agency, to habitat protection and voluntary nature conservation agreements (in the forest landscape). Ca 700 million SEK is allocated, via the Swedish Rural Development Program (within the framework of a EU Regulation), to payment to farmers for the maintenance and management of pastures and hay meadows.<br><br>Through the Swedish international development cooperation agency (Sida) about 400 million SEK annually is provided for projects/programmes with biodiversity objectives or with clear biodiversity biodiversity relevance. |

| | |
|---|---|
| b) Extra-budgetary resources (identified by donor agencies) | |
| c) Bilateral channels (identified by donor agencies) | |
| d) Regional channels (identified by donor agencies) | |
| e) Multilateral channels (identified by donor agencies) | |
| f) Private sources (identified by donor agencies) | |
| g) Resources generated through financial instruments, such as charges for use of biodiversity | |

**Box LXI.**

| Please describe in detail below any major financing programmes, such as biodiversity trust funds or specific programmes that have been established in your country. |
|---|
| See Question 89 for research funding programmes. |

| **137.** ? On Article 20(1), has your country provided financial support and incentives to those national activities that are intended to achieve the objectives of the Convention? | |
|---|---|
| a) No | |
| b) Yes, incentives only (please provide a list of such incentives below) | |
| c) Yes, financal support only | |
| d) Yes, financial support and incentives (please provide details below) | **X** |
| Further comments on financial support and incentives provided. | |
| E.g. there are substantial subsidies to farmers that employ management methods that are compatible with the conservation and sustainable use of biological diversity. The government has made new funds available for the establishment of protected areas. | |

***The next question (138) is for DEVELOPED COUNTRIES***

| **138.** ? On Article 20(2), has your country provided new and additional financial resources to enable developing country Parties to meet the agreed incremental costs to them of implementing measures which fulfill the obligations of the Convention? | |
|---|---|
| a) No | |
| b) Yes (please indicate the amount, on an annual basis, of new and additional financial resources your country has provided) | **X** |

| Further comments on new and additional financial resources provided. |
|---|
| Through the Swedish international development cooperation agency (Sida) about 400 million SEK annually is provided for projects/programmes with biodiversity objectives or with clear biodiversity biodiversity relevance. The amount within regional and national projects/programmes regarding sustainable management of natural resources (where biodiversity in most cases is an important dimension) is significant but has not been measured –and would indeed be very difficult to quantify.<br>There is no financial target for the amount of support to biodiversity initiatives. It is also impossible to judge how much of the present support that is "additional/new". Basically all of the Swedish support (with minor exceptions) to biodiversity initiatives (whether NGOs, GEF, other multilaterals, regional or bilateral) is provided from the development assistance allocation. The overall targets for Swedish development cooperation disbursements are presently increasing again and is planned to reach the 1% target by end of 2006. Environmental disbursement will thus increase. It is also clear that the attention on environmental issues (including biodiversity) during the last 20 years has led to a substantial general increase in disbursements to environment and sustainable natural resource management (including biodiversity) during this period. This is coupled with a development of both polices/strategies and practical tools and methods (such as EIA and SEA guidelines and requirements). However, it is likely that the support to biodiversity (and environment) is WITHIN the overall allocation to development assistance – and part of the overall political and financial commitment – and not additional to it. At the same time it need again to be stressed that biodiversity and environmental commitments have increased significantly during the last 10 years.<br><br>See also Boxes III and XXII. |

***The next question (139) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION***

| **139.** ? On Article 20(2), has your country received new and additional financial resources to enable it to meet the agreed full incremental costs of implementing measures which fulfill the obligations of the Convention? | |
|---|---|
| a) No | |
| b) Yes | |

| **140.** ? Has your country established a process to monitor financial support to biodiversity, including support provided by the private sector? (decision V/11) | |
|---|---|
| a) No | |
| b) No, but procedures being established | **X** |
| c) Yes (please provide details below) | |
| Further comments on processes to monitor financial support to biodiversity, including support provided by the private sector. | |
| | |

| **141.** ? Has your country considered any measures like tax exemptions in national taxation systems to encourage financial support to biodiversity? (decision V/11) | |
|---|---|
| a) No | **X** |
| b) No, but exemptions are under development (please provide details below) | |
| c) Yes, exemptions are in place (please provide details below) | |

| Further comments on tax exemptions for biodiversity-related donations. |
|---|
| |

**142.** Has your country reviewed national budgets and monetary policies, including the effectiveness of official development assistance allocated to biodiversity, with particular attention paid to positive incentives and their performance as well as perverse incentives and ways and means for their removal or mitigation? (decision VI/16)

| | |
|---|---|
| a) No | **X** |
| b) No, but review is under way | |
| c) Yes (please provide results of review below) | |

Further comments on review of national budgets and monetary policies, including the effectiveness of official development assistance.

Sweden has not made any overall review of the effectiveness of Swedish development assistance allocated to biodiversity. However, individual projects are regularly evaluated. Sweden also follows evaluation of GEF keenly.

**143.** Is your country taking concrete actions to review and further integrate biodiversity considerations in the development and implementation of major international development initiatives, as well as in national sustainable development plans and relevant sectoral policies and plans? (decisions VI/16 and VII/21)

| | |
|---|---|
| a) No | |
| b) No, but review is under way | |
| c) Yes, in some initiatives and plans (please provide details below) | **X** |
| d) Yes, in major initiatives and plans (please provide details below) | |

Further comments on review and integration of biodiversity considerations in relevant initiatives, policies and plans.

In 2003 a new initiative - the Swedish International Biodiversity programme (SwedBio) - was initiated by Sida, based at the Swedish Biodiversity Centre. The main work of SwedBio is to promote a more proactive and strategic incorporation of and work with biodiversity issues from a livelihoods perspective within Swedish development cooperation through

a) acting as a help-desk to Sida and providing assistance and comments on programmes and policies/strategies (eg country strategies)

b) financially supporting small and strategic biodiversity projects (including civil society participation in international meetings)

c) participating in international processes and methods development (eg. on development of tools for linking biodiversity and the Millenium Development Goals, inclusion of biodiversity aspects within PRSPs etc).

See also Question 138.

**144.** Is your country enhancing the integration of biological diversity into the sectoral development and assistance programmes? (decision VII/21)

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

| | |
|---|---|
| b) No, but relevant programmes are under development | |
| c) Yes, into some sectoral development and assistance programmes (please provide details below) | |
| d) Yes, into major sectoral development and assistance programmes (please provide details below) | **X** |
| Further comments on the integration of biodiversity into sectoral development and assistance programmes | |
| See Questions 138 and 143. | |

***The next question (145) is for DEVELOPED COUNTRIES***

**145.** Please indicate with an "**X**" in the table below in which area your country has provided financial support to developing countries and/or countries with economies in transition. Please elaborate in the space below if necessary.

| Areas | Support provided |
|---|---|
| a) Undertaking national or regional assessments within the framework of MEA (decision VI/8) | **X** |
| b) *In-situ* conservation (decision V/16) | **X** |
| c) Enhance national capacity to establish and maintain the mechanisms to protect traditional knowledge (decision VI/10) | **X** |
| d) *Ex-situ* conservation (decision V/26) | **X** |
| e) Implementation of the Global Strategy for Plant Conservation (decision VI/9) | **X** |
| f) Implementation of the Bonn Guidelines (decision VI/24) | **X** |
| g) Implementation of programme of work on agricultural biodiversity (decision V/5) | **X** |
| h) Preparation of first report on the State of World's Animal Genetic Resources (decision VI/17) | **X** |
| i) Support to work of existing regional coordination mechanisms and development of regional and sub regional networks or processes (decision VI/27) | **X** |
| j) Development of partnerships and other means to provide the necessary support for the implementation of the programme of work on dry and subhumid lands biological diversity (decision VII/2) | **X** |
| k) Financial support for the operations of the Coordination Mechanism of the Global Taxonomy Initiative (decision VII/9) | **X** |
| l) Support to the implementation of the Action Plan on Capacity Building as contained in the annex to decision VII/19 (decision VII/19) | **X** |
| m) Support to the implementation of the programme of work on mountain biological diversity (decision VII/27) | **X** |
| n) Support to the implementation of the programme of work on protected areas | **X** |

| | |
|---|---|
| (decision VII/28) | |
| o) Support to the development of national indicators (decision VII/30) | **X** |
| p) Others (please specify) | |

**Further information on financial support provided to developing countries and countries with economies in transition.**

See Questions 138 and 143.

***The next question (146) is for DEVELOPING COUNTRIES OR COUNTRIES WITH ECONOMIES IN TRANSITION***

**146.** Please indicate with an "**X**" in the table below in which areas your country has applied for funds from the Global Environment Facility (GEF), from developed countries and/or from other sources. The same area may have more than one source of financial support. Please elaborate in the space below if necessary.

| **Areas** | **Applied for funds from** | | |
|---|---|---|---|
| | **GEF** | **Bilateral** | **Other** |
| a) Preparation of national biodiversity strategies or action plans | | | |
| b) National capacity self-assessment for implementation of Convention (decision VI/27) | | | |
| c) Priority actions to implement the Global Taxonomy Initiative (decision V/9) | | | |
| d) *In-situ* conservation (decision V/16) | | | |
| e) Development of national strategies or action plans to deal with alien species (decision VI/23) | | | |
| f) *Ex-situ* conservation, establishment and maintenance of *Ex-situ* conservation facilities (decision V/26) | | | |
| g) Projects that promote measures for implementing Article 13 (Education and Public Awareness) (decision VI/19) | | | |
| h) Preparation of national reports (decisions III/9, V/19 and VI/25) | | | |
| i) Projects for conservation and sustainable use of inland water biological diversity (decision IV/4) | | | |
| j) Activities for conservation and sustainable use of agricultural biological diversity (decision V/5) | | | |
| k) Implementation of the Cartagena Protocol on Biosafety (decision VI/26) | | | |
| l) Implementation of the Global Taxonomy Initiative | | | |
| m) Implementation of the Addis Ababa Principles and Guidelines for the Sustainable Use of Biodiversity | | | |

| | | | |
|---|---|---|---|
| n) Others (please specify) | | | |

Further information on application for financial support.

**Box LXII.**

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

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

## D. THEMATIC AREAS

**147.** Please use the scale indicated below to reflect the level of challenges faced by your country in implementing the thematic programmes of work of the Convention (marine and coastal biodiversity, agricultural biodiversity, forest biodiversity, inland waters biodiversity, dry and sub-humid lands and mountain biodiversity).

| | |
|---|---|
| 3 = High Challenge | 1 = Low Challenge |
| 2 = Medium Challenge | 0 = Challenge has been successfully overcome |
| N/A = Not applicable | |

| Challenges | Programme of Work | | | | | |
|---|---|---|---|---|---|---|
| | Agricultural | Forest | Marine and coastal | Inland water ecosystem | Dry and subhumid lands | Mountain |
| (a) Lack of political will and support | 1 | 1 | 1 | 1 | N/A | 1 |
| (b) Limited public participation and stakeholder involvement | 1 | 2 | 2 | 2 | N/A | 2 |
| (c) Lack of main-streaming and integration of biodiversity issues into other sectors | 2 | 1 | 2 | 2 | N/A | 1 |
| (d) Lack of precautionary and proactive measures | 1 | 1 | 3 | 1 | N/A | 1 |

| | | | | | | |
|---|---|---|---|---|---|---|
| (e) Inadequate capacity to act, caused by institutional weakness | 1 | 0 | 2 | 2 | N/A | 2 |
| (f) Lack of transfer of technology and expertise | 1 | 1 | 2 | 0 | N/A | 1 |
| (g) Loss of traditional knowledge | 2 | 1 | 3 | 0 | N/A | 1 |
| (h) Lack of adequate scientific research capacities to support all the objectives | 2 | 1 | 2 | 2 | N/A | 1 |
| (i) Lack of accessible knowledge and information | 2 | 1 | 2 | 2 | N/A | 2 |
| (j) Lack of public education and awareness at all levels | 3 | 3 | 3 | 2 | N/A | 2 |
| (k) Existing scientific and traditional knowledge not fully utilized | 2 | 3 | 2 | 2 | N/A | 2 |
| (l) Loss of biodiversity and the corresponding goods and services it provides not properly understood and documented | 2 | 1 | 3 | 2 | N/A | 1 |
| (m) Lack of financial, human, technical resources | 2 | 2 | 2 | 1 | N/A | 1 |
| (n) Lack of economic incentive measures | 2 | 2 | 2 | 2 | N/A | 2 |
| (o) Lack of benefit-sharing | 1 | 1 | 2 | 2 | N/A | 2 |
| (p) Lack of synergies at national and international levels | 1 | 1 | 1 | 2 | N/A | 1 |
| (q) Lack of horizontal cooperation among stakeholders | 2 | 2 | 3 | 2 | N/A | 2 |
| (r) Lack of effective partnerships | 2 | 1 | 1 | 1 | N/A | 2 |
| (s) Lack of engagement of scientific community | 1 | 1 | 1 | 1 | N/A | 1 |
| (t) Lack of appropriate policies and laws | 1 | 1 | 1 | 2 | N/A | 1 |
| (u) Poverty | 0 | 0 | 0 | 0 | N/A | 0 |
| (v) Population pressure | 0 | 0 | 0 | 0 | N/A | 0 |

| | | | | | | |
|---|---|---|---|---|---|---|
| (w) Unsustainable consumption and production patterns | 2 | 3 | 2 | 3 | N/A | 2 |
| (x) Lack of capacities for local communities | 2 | 2 | 2 | 2 | N/A | 3 |
| (y) Lack of knowledge and practice of ecosystem-based approaches to management | 2 | 2 | 2 | 2 | N/A | 2 |
| (z) Weak law enforcement capacity | 1 | 1 | 2 | 2 | N/A | 1 |
| (aa) Natural disasters and environmental change | 2 | 2 | 1 | 2 | N/A | 3 |
| (bb) Others (please specify) | | | | | | |

## Inland water ecosystems

**148.** Has your country incorporated the objectives and relevant activities of the programme of work into the following and implemented them? (decision VII/4)

| Strategies, policies, plans and activities | No | Yes, partially, integrated but not implemented | Yes, fully integrated and implemented | N/A |
|---|---|---|---|---|
| a) Your biodiversity strategies and action plans | | X | | |
| b) Wetland policies and strategies | | X | | |
| c) Integrated water resources management and water efficiency plans being developed in line with paragraph 25 of the Plan of Implementation of the World Summit on Sustainable Development | | X | | |
| d) Enhanced coordination and cooperation between national actors responsible for inland water ecosystems and biological diversity | | X | | |

Further comments on incorporation of the objectives and activities of the programme of work

Among Sweden's fifteen national Environmental quality objectives are two freshwater objectives, "8. Flourishing lakes and streams" and "11. Thriving wetlands". These objectives focus on species and habitats whereas water quality is dealt with in other objectives (3, 4, 7, 9). Since 1999 biological diversity in fresh water is thus incorporated in strategies, policies, plans and activities.

A National wetland strategy is under way, and a mire protection plan is being implemented.

For further information on the 15 Environmental quality objectives, among which objectives 3, 4, 7, 8, 9 and 11 are highly relevant, see Box III.

The following interim targets are implementations of the thematic work on inland waters:

3.1: Acidification of lakes and streams (see Box XI)
3.3: Sulphur dioxide emissions (see Box XV)
3.4: Nitrogen oxide emissions (see Box XV)
4.3: Phase-out of substances of very high concern (see Box XV)
4.4: Continuous reduction of health and environmental risks of chemicals (see Box XV)
4.5: Guideline values for environmental quality (see Box XV)
7.1: Programmes of measures to achieve good ecological status (see Box XI)
7.2: Phosphorus emissions (see Box XI)
7.3: Nitrogen emissions (see Box XI)
7.4: Ammonia emissions (see Box XV)
7.5: Nitrogen oxide emissions
8.1: Protection of natural and cultural environments (see Box III)
8.2: Restoration of rivers and streams (see Box III)
8.3: Water protection areas (see Box III)
8.4: Releases of animals and plants (see Box XII)
8.5: Action programmes for threatened species (lakes & streams) (see Box V)
8.6: Programme of measures to achieve good surface water status (see Box III)
9.4: Programmes of measures to achieve good groundwater status
11.1: Strategy for protection and management (see Box III)
11.2: Mire protection plan (see Box IV)
11.3: Forest roads (see Box III)
11.4: Wetlands on agricultural land (see Box III)
11.5: Action programmes for threatened species (wetlands) (see Box V)

In addition to the national objectives formulated, the ongoing implementation of EU Water Framework Directive calls for integrated water resource management, employing wide cooperation and the ecosystem approach to watershed areas.

**149.** Has your country identified priorities for each activity in the programme of work, including timescales, in relation to outcome oriented targets? (decision VII/4 )

| | |
|---|---|
| a) No | |
| b) Outcome oriented targets developed but priority activities not developed | **X** |
| c) Priority activities developed but not outcome oriented targets | |
| d) Yes, comprehensive outcome oriented targets and priority activities developed | |

Further comments on the adoption of outcome oriented targets and priorities for activities, including providing a list of targets (if developed).

Interim targets have been developed under each Environmental quality objective (see Question 148). These targets can be seen as directing priority activities at the larger scale. During 2004 and 2005 action programs for protection and restoration of lakes and watercourses are under development as well as a national strategy for wetlands, further refining the priorities.

**150.** Is your country promoting synergies between this programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level? (decision VII/4 )

| | |
|---|---|
| a) Not applicable (not Party to Ramsar Convention) | |
| b) No | |
| c) No, but potential measures were identified for synergy and joint implementation | |
| d) Yes, some measures taken for joint implementation (please specify below) | **X** |
| e) Yes, comprehensive measures taken for joint implementation (please specify below) | |

Further comments on the promotion of synergies between the programme of work and related activities under the Ramsar Convention as well as the implementation of the Joint Work Plan (CBD-Ramsar) at the national level.

Within the national strategy for wetlands the synergies between the Ramsar Convention and the Joint Work Plan will be developed. Most of the Swedish wetlands of international importance ("Ramsar sites") are also included in the Natura 2000 network under the EC legislation.

**151.** Has your country taken steps to improve national data on: (decision VII/4 )

| Issues | Yes | No | No, but development is under way |
|---|---|---|---|
| a) Goods and services provided by inland water ecosystems? | **X** | | |
| b) The uses and related socioeconomic variables of such goods and services? | | | **X** |
| c) Basic hydrological aspects of water supply as they relate to maintaining ecosystem function? | **X** | | |
| d) Species and all taxonomic levels? | **X** | | |
| e) On threats to which inland water ecosystems are subjected? | **X** | | |

Further comments on the development of data sets, in particular a list of data sets developed in case you have replied "**YES**" above.

c) Within the implementation of the water framework directive environmental quality criteria on physical disturbances and hydrological status of lakes and watercourses are under development. Within the National wetland inventory, hydrological disturbances in all wetlands > 10 ha (S Sweden) >50 ha (N Sweden) are registered.

d) There is monitoring of fish communities in coastal areas with multi-mesh nets, trawls and fyke-nets, covering 50 species of a total of 200 naturally occurring fish species. Survey test fishings within the environmental monitoring of 34 inland lakes and an additional 20 limed lakes. Environmental monitoring in lakes covers, in addition to fish, also plankton and benthic fauna. Basically, most of the ~40 freshwater fish species are covered in the survey test fishing.

d) All red-listed species are monitored by the Swedish Species Information Center.

d) The Swedish Taxonomy Initiative, at the Swedish Species Information Center (www.artdata.slu.se), was launched in 2002 with the goal to describe every multicellular species in Sweden within a 20 year period, with priorities given to poorly known groups of species.

e) The National environmental survey has data on acidification, eutrophication, metals and organic chemicals from a subset of lakes and watercourses throughout Sweden. Physical threats are less well known, except for the effects of hydroelectric power infrastructure and dams

| **152.** Has your country promoted the application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems? (decision VII/4 ) | |
|---|---|
| a) No, the guidelines have not been reviewed | **X** |
| b) No, the guidelines have been reviewed and found inappropriate | |
| c) Yes, the guidelines have been reviewed and application/promotion is pending | |
| d) Yes, the guidelines promoted and applied | |
| Further comments on the promotion and application of the guidelines on the rapid assessment of the biological diversity of inland water ecosystems. | |
| | |

**Box LXIII.**

| Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| An important outcome is that lakes and watercourses are now more on the agenda for nature protection.<br>A challenge identified are the conflicting interests of forestry, agriculture, hydropower extraction and flood control. |

## Marine and coastal biological diversity

### General

| **153.** Do your country's strategies and action plans include the following? Please use an "**X**" to indicate your response. (decisions II/10 and IV/15) | |
|---|---|
| a) Developing new marine and coastal protected areas | **X** |
| b) Improving the management of existing marine and coastal protected areas | **X** |
| c) Building capacity within the country for management of marine and coastal resources, including through educational programmes and targeted research initiatives (if yes, please elaborate on types of initiatives in the box below) | **X** |
| d) Instituting improved integrated marine and coastal area management (including catchments management) in order to reduce sediment and nutrient loads into the marine environment | **X** |
| e) Protection of areas important for reproduction, such as spawning and nursery areas | **X** |

| | |
|---|---|
| f) Improving sewage and other waste treatment | **X** |
| g) Controlling excessive fishing and destructive fishing practices | **X** |
| h) Developing a comprehensive oceans policy (if yes, please indicate current stage of development in the box below) | **X** |
| i) Incorporation of local and traditional knowledge into management of marine and coastal resources (if yes, please elaborate on types of management arrangements in the box below) | **X** |
| j) Others (please specify below) | |
| k) Not applicable | |

Please elaborate on the above activities and list any other priority actions relating to conservation and sustainable use of marine and coastal biodiversity.

Among Sweden's fifteen national Environmental quality objectives there is a marine and coastal zone objective, "10. A Balanced Marine Environment, Flourishing Coastal Areas and Archipelagoes". This objective focuses on species and habitats whereas water quality is dealt with in other objectives (4, 7). Since 1999 biological diversity in marine environments is thus incorporated in strategies, policies, plans and activities.

For further information on the 15 Environmental quality objectives, among which objectives 4, 7, and 10 are highly relevant, see Box III.

The following interim targets are implementations of the thematic work on marine environments:

4.3: Phase-out of substances of very high concern (see Box XV) (f)

4.4: Continuous reduction of health and environmental risks of chemicals (see Box XV) (f)

4.5: Guideline values for environmental quality (see Box XV) (f)

7.1: Programmes of measures to achieve good ecological status (see Box XI) (d, f)

7.2: Phosphorus emissions (see Box XI) (d, f)

7.3: Nitrogen emissions (see Box XI) (d, f)

7.4: Ammonia emissions (see Box XV) (d, f)

7.5: Nitrogen oxide emissions (d, f)

10.1: Marine environments of high conservation value (see Box III) (a, b, e)

10.2: Cultural heritage and agricultural landscapes of coasts and archipelagos (see Box XVIII) (b, i)

10.3: Action programmes for threatened species (marine environments) (see Box V) (e, g)

10.4: Bycatches (see Box V) (g)

10.5: Catches – recruitment (Box VIII) (g)

10.6: Noise and other disturbance (see Box III) (b)

10.7: Discharges of oil and chemicals (see Box III) (d)

10.8: Programmes of measures to achieve good surface water status (see Box III) (d, f)

c) Development of coastal zone management in a number of case studies.

e) In addition to the national objectives formulated, the ongoing implementation of EU Water Framework Directive calls for integrated water resource management, employing wide cooperation and the ecosystem approach to watershed areas, including coastal zones and estuaries.

h) The Swedish government has initiated an investigation on the issue and the report is currently being considered by the government.

i) Inquiries to fishermen on important recruitment and fishing areas.

## Implementation of Integrated Marine and Coastal Area Management

| **154.** Has your country established and/or strengthened institutional, administrative and legislative arrangements for the development of integrated management of marine and coastal ecosystems? | |
|---|---|
| a) No | |
| b) Early stages of development | **X** |
| c) Advanced stages of development | |
| d) Arrangements in place (please provide details below) | |
| e) Not applicable | |
| Further comments on the current status of implementation of integrated marine and coastal area management. | |
| | |

| **155.** Has your country implemented ecosystem-based management of marine and coastal resources, for example through integration of coastal management and watershed management, or through integrated multidisciplinary coastal and ocean management? | |
|---|---|
| a) No | |
| b) Early stages of development | **X** |
| c) Advanced stages of development | |
| d) Arrangements in place (please provide details below) | |
| e) Not applicable | |
| Further comments on the current status of application of the ecosystem to management of marine and coastal resources. | |
| | |

## Marine and Coastal Living Resources

| **156.** Has your country identified components of your marine and coastal ecosystems, which are critical for their functioning, as well as key threats to those ecosystems? | |
|---|---|
| a) No | |
| b) Plans for a comprehensive assessment of marine and coastal ecosystems are in place (please provide details below) | **X** |
| c) A comprehensive assessment is currently in progress | |
| d) Critical ecosystem components have been identified, and management plans for them are being developed (please provide details below) | |
| e) Management plans for important components of marine and coastal ecosystems are in place (please provide details below) | |
| f) Not applicable | |
| Further comments on the current status of assessment, monitoring and research relating to marine and coastal ecosystems, as well as key threats to them | |
| Sweden is taking part in periodic assessments within HELCOM and Quality Status Reports within OSPAR. Plans for assessment of areas with disturbances in recruitment of coastal fish and are being developed. | |

**157.** Is your country undertaking the following activities to implement the Convention's work plan on coral reefs? Please use an "**X**" to indicate your response.

| Activities | Not implemented nor a priority | Not implemented but a priority | Currently implemented | Not applicable |
|---|---|---|---|---|
| a) Ecological assessment and monitoring of reefs | | X | | |
| b) Socio-economic assessment and monitoring of communities and stakeholders | | | X | |
| c) Management, particularly through application of integrated coastal management and marine and coastal protected areas in coral reef environments | | | X | |
| d) Identification and implementation of additional and alternative measures for securing livelihoods of people who directly depend on coral reef services | | | | X |
| e) Stakeholder partnerships, community participation programmes and public education campaigns | | | X | |
| f) Provision of training and career opportunities for marine taxonomists and ecologists | X | | | |
| g) Development of early warning systems of coral bleaching | | | | X |
| h) Development of a rapid response capability to document coral bleaching and mortality | | | | X |
| i) Restoration and rehabilitation of degraded coral reef habitats | X | | | |
| j) Others (please specify below) | | | | |

Please elaborate on ongoing activities.

Sweden has very few coral reefs, and most conservation activities concern *Lophelia* reefs along the northern West coast of Sweden. These reefs are found in considerably deeper water than the typical tropical reef, and a different set of factors constitute the threats.

## Marine and Coastal Protected Areas

**158.** Which of the following statements can best describe the current status of marine and coastal protected areas in your country? Please use an "**X**" to indicate your response.

| | |
|---|---|
| a) Marine and coastal protected areas have been declared and gazetted (please indicate below how many) | **X** |
| b) Management plans for these marine and coastal protected areas have been developed with involvement of all stakeholders | **(X)** |
| c) Effective management with enforcement and monitoring has been put in place | **X** |
| d) A national system or network of marine and coastal protected areas is under development | **X** |
| e) A national system or network of marine and coastal protected areas has been put in place | |
| f) The national system of marine and coastal protected areas includes areas managed for purpose of sustainable use, which may allow extractive activities | |
| g) The national system of marine and coastal protected areas includes areas which exclude extractive uses | **(X)** |
| h) The national system of marine and coastal protected areas is surrounded by sustainable management practices over the wider marine and coastal environment. | |
| i) Other (please describe below) | **X** |
| j) Not applicable | |

Further comments on the current status of marine and coastal protected areas.

a) There are 530 Nature nature reserves and 6 National parks with include marine and coastal biotopes. In addition there are 3 major off shore marine Natura 2000 sites.

b) The process of stakeholder involvement is not straightforward, and there is a certain amount of reluctance among many stakeholder groups to accept the management regimes of protected areas, or the establishment of new protected areas.

g) None of the Marine Protected Areas (MPAs) in Sweden is designated as a true non-take zone, as fisheries are allowed to some extent in all of them.

i) The International Maritime Organization (IMO) Marine Environment Protection Committee (MEPC) approved the designation of the Baltic Sea, except Russian waters, as a Particularly Sensitive Sea Area (PSSA) in principle in the year 2004.

## Mariculture

**159.** Is your country applying the following techniques aimed at minimizing adverse impacts of mariculture on marine and coastal biodiversity? Please check all that apply.

| | |
|---|---|
| a) Application of environmental impact assessments for mariculture developments | **X** |
| b) Development and application of effective site selection methods in the framework of integrated marine and coastal area management | **X** |
| c) Development of effective methods for effluent and waste control | **X** |
| d) Development of appropriate genetic resource management plans at the hatchery level | **X** |
| e) Development of controlled hatchery and genetically sound reproduction methods in order to avoid seed collection from nature. | **X** |

| | | |
|---|---|---|
| f) | If seed collection from nature cannot be avoided, development of environmentally sound practices for spat collecting operations, including use of selective fishing gear to avoid by-catch | **X** |
| g) | Use of native species and subspecies in mariculture | |
| h) | Implementation of effective measures to prevent the inadvertent release of mariculture species and fertile polypoids. | **X** |
| i) | Use of proper methods of breeding and proper places of releasing in order to protect genetic diversity | **(X)** |
| j) | Minimizing the use of antibiotics through better husbandry techniques | **X** |
| k) | Use of selective methods in commercial fishing to avoid or minimize by-catch | **X** |
| l) | Considering traditional knowledge, where applicable, as a source to develop sustainable mariculture techniques | **X** |
| m) | Not applicable | |

Further comments on techniques that aim at minimizing adverse impacts of mariculture on marine and coastal biodiversity.

g) In Sweden, only rainbow trout (*Onchorhynchus mykiss*, non-native species) and blue mussels (*Mytilus edulis*, native species) are used in mariculture.

i) The genetic diversity of indigenous salmon (*Salmo salar*) is already seriously depleted through earlier stocking and fishing practices.

## Alien Species and Genotypes

**160.** Has your country put in place mechanisms to control pathways of introduction of alien species in the marine and coastal environment? Please check all that apply and elaborate on types of measures in the space below.

| | | |
|---|---|---|
| a) | No | **X** |
| b) | Mechanisms to control potential invasions from ballast water have been put in place (please provide details below) | |
| c) | Mechanisms to control potential invasions from hull fouling have been put in place (please provide details below) | |
| d) | Mechanisms to control potential invasions from aquaculture have been put in place (please provide details below) | |
| e) | Mechanisms to control potential invasions from accidental releases, such as aquarium releases, have been put in place (please provide details below) | |
| f) | Not applicable | |

Further comments on the current status of activities relating to prevention of introductions of alien species in the marine and coastal environment, as well as any eradication activities.

When potentially invasive alien species are detected in the marine environment, measures are sometimes taken to eradicte or at least control the spread of these species. An example of this is the detection and subsequent control programme for the *Gracilaria* species which was detected in the Göteborg archipelago in 2003-2004.

Work has begun on developing mechanisms for controlling introduction from ballast water and hull

fouling. The Swedish Government has given the Swedish Maritime Administration instructions to investigate the consequences of an implementation of the International Convention for the Control and Management of Ship´s Ballast Water and Sediments adopted by the International Maritime Organization (IMO) on 13 February 2004. The report is to be finished by 28 February 2005.

**Box LXIV.**

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

a) outcomes and impacts of actions taken;

b) contribution to the achievement of the goals of the Strategic Plan of the Convention;

c) contribution to progress towards the 2010 target;

d) progress in implementing national biodiversity strategies and action plans;

e) contribution to the achievement of the Millennium Development Goals;

f) constraints encountered in implementation.

## Agricultural biological diversity

**161. ?** Has your country developed national strategies, programmes and plans that ensure the development and successful implementation of policies and actions that lead to the conservation and sustainable use of agrobiodiversity components? (decisions III/11 and IV/6)

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

Further comments on agrobiodiversity components in national strategies, programmes and plans.

Among Sweden's fifteen national Environmental quality objectives there is an objective for agricultural land, "13. A Varied Agricultural Landscape". This objective focuses on species and habitats whereas air and soil quality is dealt with in other objectives (4, 7). Since 1999 biological diversity in agricultural environments is thus incorporated in strategies, policies, plans and activities.

For further information on the 15 Environmental quality objectives, among which objectives 4, 7, 10, and 13 are highly relevant, see Box III.

The following interim targets are implementations of the thematic work on marine environments:

4.3: Phase-out of substances of very high concern (see Box XV)

4.4: Continuous reduction of health and environmental risks of chemicals (see Box XV)

4.5: Guideline values for environmental quality (see Box XV)

7.2: Phosphorus emissions (see Box XI)

7.3: Nitrogen emissions (see Box XI)

7.4: Ammonia emissions (see Box XV)

7.5: Nitrogen oxide emissions

10.2: Cultural heritage and agricultural landscapes of coasts and archipelagos (see Box XVIII)

11.4: Wetlands on agricultural land (see Box III)

13.1: Meadow and pasture land (see Box III)

13.2: Small-scale habitats (see Box III)

13.3: Culturally significant landscape features (see Box III)

13.4: Plant genetic resources and indigenous breeds (see Box VII)

13.5: Action programmes for threatened species (see Box V)

13.6: Farm buildings of cultural heritage value

The objectives and interim targets will contribute to the aims of the thematic programme of work. Meadows and semi-natural grazing land will be kept and managed in a way that promotes biodiversity. The current number of small-scale farmland habitats will be preserved and action programs will have been prepared and implemented for threatened species that are in need of targeted measures. There are also targets for plants and animal genetic resources. To fulfill these targets there are subsidies for management, information and education. The financing comes mostly from the Rural Development program within the European Common Agricultural Policy. The Swedish Rural Development Programme (LBU) is designed to mitigate the negative impact of agricultural practices on the environment, and to stimulate the positive management practices that are essential for plants and animals in the semi-natural areas of the agricultural landscape. For plant genetic recourses there are measures within the national programme on plant genetic resources (POM). There is also a program for animal genetic recourses under development.

| **162.** ? Has your country identified ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use, including food security, of agricultural biological diversity? (decision V/5) | |
|---|---|
| a) No | **X** |
| b) No, but potential measures are under review | |
| c) Yes, some measures identified (please provide details below) | |
| d) Yes, comprehensive measures identified (please provide details below) | |
| Further information on ways and means to address the potential impacts of genetic use restriction technologies on the *In-situ* and *Ex-situ* conservation and sustainable use of agricultural biodiversity. | |
| | |

## Annex to decision V/5 - Programme of work on agricultural biodiversity

| **Programme element 1 – Assessment** | |
|---|---|
| **163.** Has your country undertaken specific assessments of components of agricultural biodiversity such as on plant genetic resources, animal genetic resources, pollinators, pest management and nutrient cycling? | |
| a) No | |
| b) Yes, assessments are in progress (please specify components below) | **X** |
| c) Yes, assessments completed (please specify components and results of assessments below) | |
| Further comments on specific assessments of components of agricultural biodiversity. | |
| A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species. For livestock a management plan has been taken. There is also program for subsidies for keeping ancient breeds that are threatened with extinction. | |

| **164.** Is your country undertaking assessments of the interactions between agricultural practices and the conservation and sustainable use of the components of biodiversity referred to in Annex I of the Convention (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance)? | |
|---|---|
| a) No | |
| b) Yes, assessments are under way | |
| c) Yes, some assessments completed (please provide details below) | **X** |
| d) Yes, comprehensive assessments completed (please provide details below) | |

| Further comments on assessment of biodiversity components (e.g. ecosystems and habitats; species and communities; genomes and genes of social, scientific or economic importance). |
|---|
| A number of research programmes are currently addressing the above issues. One example is the programme “HagmarksMistra”, with the aim to develop management practices for semi-natural grasslands that will preserve biodiversity. |

| **165.** Has your country carried out an assessment of the knowledge, innovations and practices of farmers and indigenous and local communities in sustaining agricultural biodiversity and agro-ecosystem services for food production and food security? | |
|---|---|
| a) No | |
| b) Yes, assessment is under way | **X** |
| c) Yes, assessment completed (please specify where information can be retrieved below) | |

| Further comments on assessment of the knowledge, innovations and practices of farmers and indigenous and local communities. |
|---|
| There are activities concerning information and education within the Rural Development Program.<br>A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge.<br>The Swedish Biodiversity Centre, with support from the Environmental Protection Agency, is now compiling a three volume treatise on the traditional use of biological resources in Sweden. The project will be completed by 2007. |

| **166.** Has your country been monitoring an overall degradation, status quo or restoration/rehabilitation of agricultural biodiversity since 1993 when the Convention entered into force? | |
|---|---|
| a) No | |
| b) Yes, no change found (status quo) | |
| c) Yes, overall degradation found (please provide details below) | |
| d) Yes, overall restoration or rehabilitation observed (please provide details below) | **X** |

| Further comments on observations. |
|---|
| Within the Rural Development Programme restoration of pastures, meadows, wetlands and cultural heritages has taken place. A larger area of such biotopes are in active management today, than were the case ten years ago. This probably means that associated biodiversity has been positively affected, but there has been no assessment. |

| Programme element 2 - Adaptive management | |
|---|---|
| **167.** Has your country identified management practices, technologies and policies that promote the positive, and mitigate the negative, impacts of agriculture on biodiversity, and enhance productivity and the capacity to sustain livelihoods? | |
| a) No | |
| b) No, but potential practices, technologies and policies being identified | |
| c) Yes, some practices, technologies and policies identified (please provide details below) | **X** |
| d) Yes, comprehensive practices, technologies and policies identified (please provide details below) | |
| Further comments on identified management practices, technologies and policies. | |
| The subsidies for managing biotopes within the Rural Development Program have contributed to the active management of biodiversity, while simultaneously making it easier for farmers to stay on the farms. | |

| Programme element 3 - Capacity-building | |
|---|---|
| **168.** Has your country increased the capacities of farmers, indigenous and local communities, and their organizations and other stakeholders, to manage sustainable agricultural biodiversity and to develop strategies and methodologies for *In-situ* conservation, sustainable use and management of agricultural biological diversity? | |
| a) No | |
| b) Yes (please specify area/component and target groups with increased capacity) | **X** |
| Further comments on increased capacities of farmers, indigenous and local communities, and their organizations and other stakeholders. | |
| A programme of extension to farmers (KULM) has contributed to capacity-building among active farmers. | |

| | | |
|---|---|---|
| **169.** Has your country put in place operational mechanisms for participation by a wide range of stakeholder groups to develop genuine partnerships contributing to the implementation of the programme of work on agricultural biodiversity? | | |
| a) | No | **X** |
| b) | No, but potential mechanisms being identified | |
| c) | No, but mechanisms are under development | |
| d) | Yes, mechanisms are in place | |

| | | |
|---|---|---|
| **170.** Has your country improved the policy environment, including benefit-sharing arrangements and incentive measures, to support local-level management of agricultural biodiversity? | | |
| a) | No | **X** |
| b) | No, but some measures and arrangements being identified | |
| c) | No, but measures and arrangements are under development | |
| d) | Yes, measures and arrangements are being implemented (please | |

| | |
|---|---|
| specify below) | |

Further comments on the measures taken to improve the policy environment.

| Programme element 4 – Mainstreaming | |
|---|---|
| **171.** Is your country mainstreaming or integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes? | |
| a) No | |
| b) No, but review is under way | |
| c) No, but potential frameworks and mechanisms are being identified | |
| d) Yes, some national plans or strategies mainstreamed and integrated into some sectoral plans and programmes (please provide details below) | |
| e) Yes, some national plans or strategies mainstreamed into major sectoral plans and programmes (please provide details below) | **X** |

Further comments on mainstreaming and integrating national plans or strategies for the conservation and sustainable use of agricultural biodiversity in sectoral and cross-sectoral plans and programmes.

The conservation and sustainable use of agricultural biodiversity is an explicit responsibility of the agricultural sector, and sector policies and programmes are based on the relevant Environmental quality objectives.

| **172.** Is your country supporting the institutional framework and policy and planning mechanisms for the mainstreaming of agricultural biodiversity in agricultural strategies and action plans, and its integration into wider strategies and action plans for biodiversity? | |
|---|---|
| a) No | |
| b) Yes, by supporting institutions in undertaking relevant assessments | |
| c) Yes, by developing policy and planning guidelines | **X** |
| d) Yes, by developing training material | **X** |
| e) Yes, by supporting capacity-building at policy, technical and local levels | **X** |
| f) Yes, by promoting synergy in the implementation of agreed plans of action and between ongoing assessment and intergovernmental processes. | |

Further comments on support for institutional framework and policy and planning mechanisms.

| **173.** In the case of centers of origin in your country, is your country promoting activities for the conservation, on farm, *In-situ*, and *Ex-situ*, of the variability of genetic resources for food and agriculture, including their wild relatives? | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

Further comments on of the conservation of the variability of genetic resources for food and agriculture in their center of origin.

A national programme for plant genetic resources (POM) is being implemented and a national programme for animal genetic recourses is under development. POM is actively inventorying plants in traditional use, collecting samples, and documenting associated local knowledge. The Nordic Gene Bank has been charged with the ex situ conservation of the cultivated species. For livestock a management plan has been taken. There is also program for subsidies for keeping ancient breeds that are threatened with extinction.

On-farm conservation is not practiced in Sweden due to the fact that few crops originated in Sweden. *In situ* conservation is relevant to forage crops and some fruit trees. For forage crops there is a possibility to make national reserves at special areas. Otherwise the most important thing is that areas that have wild relatives to forage crops will not be overgrown. To keep the landscape open is therefore important and that is the aim of the Rural Development Program.

*Ex situ* conservation of seeds is done at the Nordic Gene Bank. *Ex situ* conservation of vegetative propagated plants is under development. For fruits and some vegetables there are special clone archives.

**Box LXV.**

| Please provide information concerning the actions taken by your country to implement the Plan of Action for the International Initiative for the Conservation and Sustainable Use of Pollinators. |
|---|
| There is no significant activity. A small research project on the host plant resources needed for viable wild bee populations has been funded. |

**Box LXVI.**

| Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| |

## Forest Biological Diversity

### General

| **174.** Has your country incorporated relevant parts of the work programme into your national biodiversity strategies and action plans and national forest programmes? | |
|---|---|
| a) No | |
| b) Yes, please describe the process used | **X** |
| c) Yes, please describe constraints/obstacles encountered in the process | |
| d) Yes, please describe lessons learned | |
| e) Yes, please describe targets for priority actions in the programme of work | |
| Further comments on the incorporation of relevant parts of the work programme into your NBSAP | |

| and forest programmes |
|---|
| Among Sweden's fifteen national Environmental quality objectives there is one dedicated to the forest environment, "12. Sustainable Forests". This objective focuses on species and habitats whereas air and soil quality is dealt with in other objectives (3, 4). Since 1999 biological diversity in forests is thus incorporated in strategies, policies, plans and activities.<br><br>For further information on the 15 Environmental quality objectives, among which objectives 3, 4, and 12 are highly relevant, see Box III.<br>The following interim targets are implementations of the thematic work on forests:<br>3.2: Acidification of forest soils<br>3.3: Sulphur dioxide emissions (see Box XV)<br>3.4: Nitrogen oxide emissions (see Box XV)<br>4.3: Phase-out of substances of very high concern (see Box XV)<br>4.4: Continuous reduction of health and environmental risks of chemicals (see Box XV)<br>4.5: Guideline values for environmental quality (see Box XV)<br>12.1: Long-term protection of forest land (see Box III)<br>12.2: Enhanced biological diversity (see (Box III)<br>12.3: Protection of cultural heritage (see Box XVIII)<br>12.4: Action programmes for threatened species (see Box V) |

**Box LXVII.**

| Please indicate what recently applied tools (policy, planning, management, assessment and measurement) and measures, if any, your country is using to implement and assess the programme of work. Please indicate what tools and measures would assist the implementation. |
|---|
| The Environmental quality objectives, and their interim targets with defined indicators, constitute the main framework for the implementation of the forest programme of work (see Question 174). However, our assessment of implementation and target achievement is closely linked to the objectives and targets, not to the programme of work itself. |

**Box LXVIII.**

| Please indicate to what extent and how your country has involved indigenous and local communities, and respected their rights and interests, in implementing the programme of work. |
|---|
| In northern Sweden, where the Sami people uses forests for winter reindeer grazing, the forest management is undertaken with consideration taken 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.<br>The right to hunt game belongs to the owner of the land. This right is often released to a team of hunters as a commercial activity. When game populations are too abundant relative to the amount of fodder on the land 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 further reductions in abundance. The hunters are normally unwilling to accept lower moose abundances. In both cases conflicts of interests easily emerges.<br>The traditional rights of the Sami people and the rights of the hunters could be seen as an impeding factor for sustainable forest management (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 of national policy processes on reindeer herding and hunting. |

**Box LXIX.**

| Please indicate what efforts your country has made towards capacity building in human and capital resources for the implementation of the programme of work. |
|---|
| Huge human and capital resources are used to implement the Environmental Objective Sustainable forests. Our national effort is not limited to the programme of work on forests. |

**Box LXX.**

| Please indicate how your country has collaborated and cooperated (e.g., south-south, north-south, south-north, north-north) with other governments, regional or international organizations in implementing the programme of work. Please also indicate what are the constraints and/or needs identified. |
|---|
| |

## Expanded programme of work on forest biological diversity

| Programme element 1 – Conservation, sustainable use and benefit-sharing | |
|---|---|
| **175.** Is your country applying the ecosystem approach to the management of all types of forests? | |
| a) No (please provide reasons below) | |
| b) No, but potential measures being identified (please provide details below) | **X** |
| c) Yes (please provide details below) | **X** |

Comments on application of the ecosystem approach to management of forests (including effectiveness of actions taken, lessons learned, impact on forest management, constraints, needs, tools, and targets).

The "Swedish model" of sustainable forest management (SFM) is based on a combination of legally and voluntarily protected areas (covering on average 8-10% of the total forest area, with considerable regional variations), and a set of general consideration criteria for biodiversity management within normal forestry operations. The SFM model can be seen as equivalent to the ecosystem approach, in principle, and for large land-owners applying their own tools for landscape ecology based planning, the results would be similar. For land-owners with smaller land parcels it is however much more difficult to achieve the ecosystem approach. Hence, not all forests are managed according to the ecosystem approach. Some aspects of the ecosystem approach can still be applied by the local forestry administrations.

The Swedish forest and environmental policy and the legislation (the Forest Act and the Environmental Code) support the implementation of both SFM and the ecosystem approach. The two national certification schemes/standards (FSC and PEFC) also contribute to sustainable mangement of the forest in Sweden. Again, it is easier for large land-owners to achieve the certification criteria concerning landscape planning.

There is a need for a planning/management tool that would allow all landowners to apply the ecosystem approach.

**176.** Has your country undertaken measures to reduce the threats to, and mitigate its impacts on forest biodiversity?

| Options | X | Details |
|---|---|---|

| | | |
|---|---|---|
| a) Yes | **X** | Please specify below the major threats identified in relation to each objective of goal 2 and the measures undertaken to address priority actions<br><br>Sweden has focused on the implementation of the Environmental quality objectives and therefore we have not chosen any specific priority goals, objectives and activities from the expanded programme of work. But many of our efforts, to some extent, overlap with the programme of work.<br><br>The threats identified in the Environmental quality objectives include acidification of forest soils, persistent and bioaccumulating organic compounds, heavy metals, the loss of oldgrowth forests, the loss of suitable substrates for endangered species (old trees, dead wood, deciduous forest stands), the loss of cultural forest heritage, and species extinction. Action to reduce these threats, and to mitigate their impact on forest biodiversity, has been initiated (see Question 174, and Boxes III, V, XV and XVIII).<br><br>Threats not explicitly addressed in the interim targets of the Environmental quality objectives include invasive alien species and the loss of natural disturbances. Regarding invasive alien species that may be considered pests on forestry trees, comprehensive systems for prevention, detection, mitigation are already in place. The loss of natural disturbance through the elimination of forest fires has also been addressed, resulting in small scale forest burning practices. |
| b) No | | Please provide reasons below |
| Further comments on measures to reduce threats to, and mitigate the impacts of threatening processes on forest biodiversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets). | | |

| **177.** Is your country undertaking any measures to protect, recover and restore forest biological diversity? | | |
|---|---|---|
| **Options** | **X** | **Details** |
| a) Yes | **X** | Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities<br><br>The government of Sweden has made a substantial effort to increase the area of protected forests, especially oldgrowth forest. See Box III.<br>The Environmental quality objective 12, and especially interim targets 12.2 and 12.4, aim to promote forest management practices that further the conservation of threatened species. See Boxes III and V.<br>Restoration of valuable features for biodiversity, in stands or landscapes where intensive land use has caused species loss, is a component in the forest policy and it is expressed in the management plans of local forestry administrations and land-owners (e.g. “Green management plans, see Question 178). |
| b) No | | Please provide reasons below |
| Further comments on measures to protect, recover and restore forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, | | |

| tools and targets). |
|---|
| |

**178.** Is your country undertaking any measures to promote the sustainable use of forest biological diversity?

| Options | X | Details |
|---|---|---|
| a) Yes | **X** | Please specify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities<br>The sustainable use of forests is a basic tenet of Environmental quality objective 12: "Sustainable forests". See Boxes III and VIII, Question 70. |
| b) No | | Please provide reasons below |

Further comments on the promotion of the sustainable use of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

The national Forestry Act stipulates that forestry activities must include general consideration to biodiversity values. This may be expressed as a management that actively promotes the presence of e.g. nesting trees, groups of trees and single eternity trees left standing on the forest parcel after final felling, and a considerable amount of standing and lying dead wood kept. The National Forestry Board oversees the Act, and regularly assesses the degree of implementation.

The "Greener Forest" educational concept is a way to show forest owners how they voluntarily can implement the Swedish forest policy on their own property. They can e.g. invest in a "Green management plan" with long term classification of each stand, or voluntarily set aside 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 of 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.

See also Box VIII, sub-box VI, for a comment on the concept of sustainability in forestry.

**179.** Is your country undertaking any measures to promote access and benefit-sharing of forest genetic resources?

| Options | X | Details |
|---|---|---|
| a) Yes | | Please specify priority actions in relation to each objective of goal 5 and describe measures undertaken |
| b) No | **X** | Please provide reasons below<br>See questions 110-116. |

| Further comments on the promotion of access and benefit-sharing of forest genetic resources. (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets) |
|---|
| |

| Programme element 2 – Institutional and socio-economic enabling environment | | |
|---|---|---|
| **180.** Is your country undertaking any measures to enhance the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing? | | |
| **Options** | **X** | **Details** |
| a) Yes | **X** | Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities<br>Sweden supports a wide range of research programmes that address the causes and processes of forest biological diversity losses. Such studies include both biological, social and economic sciences.<br>The conservation and sustainable use of forest biodiversity is an explicit responsibility of the forestry sector, and sector policies and programmes are based on the relevant Environmental quality objectives. |
| b) No | | Please provide reasons below |
| Further comments on the enhancement of the institutional enabling environment for the conservation and sustainable use of forest biological diversity, including access and benefit-sharing (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets). | | |

| **181.** Is your country undertaking any measures to address socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity? | | |
|---|---|---|
| **Options** | **X** | **Details** |
| a) Yes | | Please identify priority actions in relation to each objective of Goal 2 and describe measures undertaken to address these priorities |
| b) No | **X** | Please provide reasons below |
| Further comments on review of socio-economic failures and distortions that lead to decisions that result in loss of forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets). | | |

**182.** Is your country undertaking any measures to increase public education, participation and awareness in relation to forest biological diversity?

| Options | X | Details |
|---|---|---|
| a) Yes | X | Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities<br>The Swedish Forest Administration regularily performs campaigns with the aim to increase awareness and public education in forest ecology and forest management among landowners and other stakeholders. The most recent large-scale campaign was entitled "Greener Forest".<br>The "Greener Forest" educational concept is a way to show forest owners how they voluntarily can implement the Swedish forest policy on their own property. They can e.g. invest in a "Green management plan" with long term classification of each stand, or voluntarily set aside woodland key habitats – habitats with red-listed species and of great biodiversity preservation importance.<br>Local community councils offer a range of educational activities aimed at school children, e.g. through Nature Schools, which receive school classes for typically 1-5 days of hands-on experience with nature, and the concepts of conservation and sustainable use. |
| b) No | | Please provide reasons below |

Further comments on measures to increase public education, participation and awareness in relation to forest biological diversity (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

**Programme element 3 – Knowledge, assessment and monitoring**

**183.** Is your country undertaking any measures to characterize forest ecosystems at various scales in order to improve the assessment of the status and trends of forest biological diversity?

| Options | X | Details |
|---|---|---|
| a) Yes | X | Please identify priority actions in relation to each objective of Goal 1 and describe measures undertaken to address these priorities<br>Some measures have been taken regarding Objectives 1 and 3, especially surveys in core landscapes for biodiversity with focus on area protection, sustainable forest management and nature conservation management (practice/measures to develop biodiversity values). |
| b) No | | Please provide reasons below |

Further comments on characterization of forest ecosystems at various scales (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

**184.** Is your country undertaking any measures to improve knowledge on, and methods for, the assessment of the status and trends of forest biological diversity?

| Options | X | Details |
|---|---|---|
| a) Yes | X | Please identify priority actions in relation to each objective of goal 2 and describe measures undertaken to address these priorities<br>Swedish monitoring and assessment activities are focused on the Environmental quality objective "Sustainable forests" and the four connected interim targets. See Boxes III, V and XVIII. |
| b) No | | Please provide reasons below |

Further comments on improvement of knowledge on and methods for the assessment of the status and trends (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

**185.** Is your country undertaking any measures to improve the understanding of the role of forest biodiversity and ecosystem functioning?

| Options | X | Details |
|---|---|---|
| a) Yes | X | Please identify priority actions in relation to each objective of goal 3 and describe measures undertaken to address these priorities<br>Sweden supports a wide range of research programmes that address the role of forest biodiversity and ecosystem functioning. |
| b) No | | Please provide reasons below |

Further comments on the improvement of the understanding of the role of forest biodiversity and ecosystem functioning (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets).

**186.** Is your country undertaking any measures at national level to improve the infrastructure for data and information management for accurate assessment and monitoring of global forest biodiversity?

| Options | X | Details |
|---|---|---|
| a) Yes | X | Please identify priority actions in relation to each objective of goal 4 and describe measures undertaken to address these priorities<br>Sweden has a long-standing monitoring system for forestry data, and is increasingly adding parameters to describe a wider range of biodiversity measurements. A research programme (HEUREKA) investigates the efficient use of such data for active planning and management of forestry in a GIS-based tool. |

| | | |
|---|---|---|
| b) No | | Please provide reasons below |
| | | |

| |
|---|
| Further comments on the improvement of the infrastructure for data and information management (including effectiveness of actions taken, lessons learned, impacts on forest biodiversity, constraints, needs, tools and targets). |
| |

**Box LXXI.**

| |
|---|
| Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
| |

## Biological diversity of dry and sub-humid lands

| **187.** Is your country supporting scientifically, technically and financially, at the national and regional levels, the activities identified in the programme of work? (decisions V/23 and VII/2 ) | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | |
| Further comments on scientific, technical and financial support, at the national and regional levels, to the activities identified in the programme of work. | |
| | |

| **188.** Has your country integrated actions under the programme of work of dry and sub-humid lands into its national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD? (decisions V/23, VI/4 and VII/2) | |
|---|---|
| a) No | **X** |
| b) Yes (please provide details below) | |
| Further comments on actions under the programme of work of dry and sub-humid lands integrated into national biodiversity strategies and action plans or the National Action Programme (NAP) of the UNCCD. | |
| | |

| **189.** Has your country undertaken measures to ensure synergistic/collaborative implementation of the programme of work between the national UNCCD process and other processes under related environmental conventions? (decisions V/23, VI/4 and VII/2) | |
|---|---|
| a) No | **X** |
| b) Yes, some linkages established (please provide details below) | |

| | |
|---|---|
| c) Yes, extensive linkages established (please provide details below) | |

Further comments on the measures to ensure the synergistic/collaborative implementation of the programme of work between the national UNCCD processes and other processes under related environmental conventions.

**Programme Part A: Assessment**

**190.** Has your country assessed and analyzed information on the state of dryland biological diversity and the pressures on it, disseminated existing knowledge and best practices, and filled knowledge gaps in order to determine adequate activities? (Decision V/23, Part A: Assessment, Operational objective, activities 1 to 6)

| | |
|---|---|
| a) No | **X** |
| b) No, but assessment is ongoing | |
| c) Yes, some assessments undertaken (please provide details below) | |
| d) Yes, comprehensive assessment undertaken (please provide details below) | |

Further comments on the relevant information on assessments of the status and trends and dissemination of existing knowledge and best practices.

**Programme Part B: Targeted Actions**

**191.** Has your country taken measures to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences? (part B of annex I of decision V/23, activities 7 to 9)

| | |
|---|---|
| a) No | **X** |
| b) Yes, some measures taken (please provide details below) | |
| c) Yes, many measures taken (please provide details below) | |

Further comments on the measures taken to promote the conservation and sustainable use of the biological diversity of dry and sub-humid lands and the fair and equitable sharing of the benefits arising out of the utilization of its genetic resources, and to combat the loss of biological diversity in dry and sub-humid lands and its socio-economic consequences.

**192.** Has your country taken measures to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work?

| | |
|---|---|
| a) No | **X** |
| b) Yes, some measures taken (please provide details below) | |
| c) Yes, comprehensive measures taken (please provide details below) | |
| d) Yes, all identified capacity needs met (please provide details below) | |

Further comments on measures taken to strengthen national capacities, including local capacities, to enhance the implementation of the programme of work.

**Box LXXII.**

| Please elaborate below on the implementation of this programme of work and associated decisions specifically focusing on:<br>a) outcomes and impacts of actions taken;<br>b) contribution to the achievement of the goals of the Strategic Plan of the Convention;<br>c) contribution to progress towards the 2010 target;<br>d) progress in implementing national biodiversity strategies and action plans;<br>e) contribution to the achievement of the Millennium Development Goals;<br>f) constraints encountered in implementation. |
|---|
| Sweden does not consider this programme of work to be applicable to Swedish conditions. The relatively few Swedish dry habitat types are considered under the forest or agricultural programmes of work. |

## Mountain Biodiversity

**Programme Element 1. Direct actions for conservation, sustainable use ad benefit sharing**

**193.** Has your country taken any measures to prevent and mitigate the negative impacts of key threats to mountain biodiversity?

| | |
|---|---|
| a) No | |
| b) No, but relevant measures are being considered | |
| c) Yes, some measures taken (please provide details below) | |
| d) Yes, many measures taken (please provide details below) | **X** |

Further comments on the measures taken to prevent and mitigate the negative impacts of key threats to mountain biodiversity

Among Sweden's fifteen national Environmental quality objectives there is one dedicated to the mountain environment, "14. A Magnificent Mountain Landscape".

For further information on the 15 Environmental quality objectives, among which objectives 4, 8, 11 and 14 are highly relevant, see Box III.

The following interim targets are implementations of the thematic work on forests:

4.3: Phase-out of substances of very high concern (see Box XV)

4.4: Continuous reduction of health and environmental risks of chemicals (see Box XV)

4.5: Guideline values for environmental quality (see Box XV)

8.1: Protection of natural and cultural environments (lakes and streams) (see Box III)

8.2: Restoration of rivers and streams (see Box III)

11.2: Mire protection plan (see Box IV)

14.1: Damage to soil and vegetation (see Box III)

14.2: Noise (mountains) (see Box III)

14.3: Natural and cultural assets (mountains) (see Box III)

14.4: Action programmes for threatened species (mountains) (see Box V)

The Forestry Act includes restrictions on final felling in areas of the north that is difficult to regenerate (including forest close to alpine land and forest with protective functions because of climate). For example permission to cut may not be issued in forest close to the alpine zone if the

operation is jeopardizing vital interests for nature conservation or cultural heritage.

Another example is that foreign tree species may not be used in afforestation close to the alpine zone. This is applies to *Pinus contorta* that was previously widely used.

There are also regulations on the use of snowmobiles, the use of aircraft and the use of terrain vehicles in the mountains, to protect flora and fauna and to avoid erosion.

| **194.** Has your country taken any measures to protect, recover and restore mountain biodiversity? | |
|---|---|
| a) No | |
| b) No, but some measures are being considered | |
| c) Yes, some measures taken (please provide details below) | |
| d) Yes, many measures taken (please provide details below) | **X** |

Further comments on the measures taken to protect, recover and restore mountain biodiversity

Protected areas in the mountains cover a very large proportion of the landscape, as the majority of Sweden's large national parks are placed along the northern mountain ranges. For example, 43% of the productive forest in the mountain area below the alpine zone is protected. The protection of the alpine zone and connected mountains started already in 1909.

There are also areas where the use of snowmobiles etc is restricted, to achieve the peaceful and noise-free environment stipulated in one of the interim targets.

There is now focus on the cultural heritage values of the mountain areas, which is usually mutually beneficial for biological values.

| **195.** Has your country taken any measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems? | |
|---|---|
| a) No | |
| b) No, but some measures are being considered | |
| c) Yes, some measures taken (please provide details below) | **X** |
| d) Yes, many measures taken (please provide details below) | |

Further comments on the measures to promote the sustainable use of mountain biological resources and to maintain genetic diversity in mountain ecosystems

An example is the Wilhelmina Model Forest. This is a demonstration area included in the Euro Barents cooperation.

The Reindeer Husbandry Act has been changed and designed to assure sustainable use of the mountain resources.

| **196.** Has your country taken any measures for sharing the benefits arising from the utilization of mountain genetic resources, including preservation and maintenance of traditional knowledge? | |
|---|---|
| a) No | **X** |
| b) No, but some measures are being considered | |
| c) Yes, some measures taken (please provide details below) | |
| d) Yes, many measures taken (please provide details below) | |

Further comments on the measures for sharing the benefits arising from the utilization of mountain genetic resources

According to Swedish law, only ethnic Sami people may apply traditional reindeer herding practices,

and hence the benefits rest solely with the owners of such knowledge.

| Programme Element 2. Means of implementation for conservation, sustainable use and benefit sharing | |
|---|---|
| **197.** Has your country developed any legal, policy and institutional framework for conservation and sustainable use of mountain biodiversity and for implementing this programme of work? | |
| a) No | |
| b) No, but relevant frameworks are being developed | |
| c) Yes, some frameworks are in place (please provide details below) | **X** |
| d) Yes, comprehensive frameworks are in place (please provide details below) | |
| Further comments on the legal, policy and institutional frameworks for conservation and sustainable use of mountain biodiversity and for implementing the programme of work on mountain biodiversity. | |
| The most important Code is the Environmental Code. Also the Terrain Traffic Act is vital. The Forestry Act and the Reindeer Husbandry Act are mentioned above. | |

| **198.** Has your country been involved in regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity? | |
|---|---|
| a) No | |
| b) No, but some cooperation frameworks are being considered | |
| c) Yes (please provide details below) | **X** |
| Further information on the regional and/or transboundary cooperative agreements on mountain ecosystems for conservation and sustainable use of mountain biodiversity | |
| The European network Natura 2000 is designed to protected threatened habitats and species at the community level, and most protected areas in the mountain region are included in the network.<br>There is also activity within the Circumpolar Protected Area Network (CPAN) that is a part of the Arctic Council cooperation. | |

| Programme Element 3. Supporting actions for conservation, sustainable use and benefit sharing | |
|---|---|
| **199.** Has your country taken any measures for identification, monitoring and assessment of mountain biological diversity? | |
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some measures are in place (please provide details below) | |
| d) Yes, comprehensive measures are in place (please provide details below) | **X** |
| Further comments on the measures for identification, monitoring and assessment of mountain biodiversity | |
| A new monitoring of mountain areas of Sweden has started in 2003, included in the National Inventory of the Landscape of Sweden (NILS) launched by the Swedish Environmental Protection Agency (SEPA). | |

SEPA is also supporting in cooperation with the Swedish Space Agency, Administrative County Boards of the north and the University of Agricultural Sciences a project on Satellite based remote sensing for monitoring of alpine dry heaths in the Swedish mountainous area.

| **200.** Has your country taken any measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity? | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | |
| c) Yes, some measures are in place (please provide details below) | **X** |
| d) Yes, comprehensive measures are in place (please provide details below) | |

Further comments on the measures for improving research, technical and scientific cooperation and capacity building for conservation and sustainable use of mountain biodiversity

MISTRA, an environmental research funding body, supports a large research programme named MountainMISTRA. The results from the research are published in the paper FjällFokus (Mountain Focus). This programme considers several aspects of sustainable use of mountain resources, including reindeer herding.

| **201.** Has your country taken any measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems? | |
|---|---|
| a) No | |
| b) No, but relevant programmes are under development | **X** |
| c) Yes, some measures are in place (please provide details below) | |
| d) Yes, comprehensive measures are in place (please provide details below) | |

Further comments on the measures to develop, promote, validate and transfer appropriate technologies for the conservation of mountain ecosystems

SEPA intend to evaluate if the protection of mountain ecosystems is sufficient. Probably there are gaps for the protection of the lakes and their ecosystems. There are measures ongoing to improve the situation.

**Box LXXIII.**

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

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

## E. OPERATIONS OF THE CONVENTION

| **202.** Has your country actively participated in subregional and regional activities in order to prepare for Convention meetings and enhance implementation of the Convention? (decision V/20) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

Further comments on the regional and subregional activities in which your country has been involved.

As a member of the European Union Sweden routinely participates in the EU coordination work. Each COP is prepared through full coordination, whereas more informal discussions are held as preparation for SBSTTA meetings. Sweden participates in the pan-European pre-SBSTTA meetings organised by Germany as well as other EU and pan-European activities organised by e.g. the European Commission (EPBRS etc).

A good example of subregional activity is the publication of "A Nordic approach to access and rights to genetic resources" which sets out the framework for the implementation of ABS in the Nordic countries, and which was an important part in the preparations for the CBD work on ABS.

| **203.** Is your country strengthening regional and subregional cooperation, enhancing integration and promoting synergies with relevant regional and subregional processes? (decision VI/27 B) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | **X** |

Further comments on regional and subregional cooperation and processes.

EU integration and participation in European conventions.

***The following question (204) is for DEVELOPED COUNTRIES***

| **204.** Is your country supporting the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes? (decision VI/27 B) | |
|---|---|
| a) No | |
| b) No, but programmes are under development | |
| c) Yes, included in existing cooperation frameworks (please provide details below) | **X** |
| d) Yes, some cooperative activities ongoing (please provide details below) | |

Further comments on support for the work of existing regional coordination mechanisms and the development of regional and subregional networks or processes.

Sweden supports the work of multilateral agencies such ADD, AfDB, WB GEF, UNEP, UNDP, FAO/ITPGRFA etc., through the Swedish international development cooperation agency Sida. There is also support to regional water resources bodies and others.

| **205.** Is your country working with other Parties to strengthen the existing regional and subregional mechanisms and initiatives for capacity-building? (decision VI/27 B) | |
|---|---|
| a) No | |
| b) Yes | **X** |

| **206.** Has your country contributed to the assessment of the regional and subregional mechanisms for implementation of the Convention? (decision VI/27 B) | |
|---|---|
| a) No | |
| b) Yes (please provide details below) | X |

Further comments on contribution to the assessment of the regional and subregional mechanisms.

Sweden has contributed actively in the process within EU with the assessment and review of the EU Biodiversity Strategy and the EU Biodiversity Action Plans (sectoral plans).

**Box LXXIV.**

Please elaborate below on the implementation of the above decisions specifically focusing on:

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

## F. COMMENTS ON THE FORMAT

**Box LXXV.**

Please provide below recommendations on how to improve this reporting format.

Comments from the Swedish EPA (as responsible for the compliation of the report): This national report was prepared through consultations with government authorities, academic institutions, non-governmental organizations, companies and other stakeholders. All organizations were provided with the full questionnaire, a detailed reading guide, and suggestions on which sections of the questionnaire would be most relevant for each of them. Despite the fact that 200 such organizations were invited, only 30 did respond and offered information or views on Sweden's implementation of the CBD. Another 30 responded with the message that they could not possibly respond to such a massive questionnaire. The remaining 140 organizations did not even answer.

It may have been a mistake to use the questionnaire in consultations with stakeholders. An alternative process with an adapted and interpreted questionnaire, or oral consultations, would have been more conducive and rewarding, but also much more resource demanding.

The questionnaire is without doubt a massive document, requesting our views and experiences on close to a thousand issues small or large. Even with the best intentions, it is not easy to produce a 1000 answers of high quality. The large amount of redundancy makes it even harder. Many of the measures taken can be described first as responses to the 2010 targets, to the GSPC, to the different articles, and then again as actions taken within the thematic approaches.

The massiveness of the document, the high degree of fragmentation and redundancy, coupled with the abstract style of articles, decisions and work programmes reproduced in the questionnaire, makes it extremely difficult to extract the bottom line. The general picture is so easily lost in details. We sincerely hope that the Secretariat can apply a meaningful process to the evaluation of 180 completed questionnaires.

The following are a few of the comments on the format received:

"Too much of politician text, difficult to understand the nomenclature. I guess many of the institutions that could give a lot of input can't understand what you are aiming at."

"the format of the questionnaire is not at all adapted to our way of operating."

"Too complex and too extensive."

"The format is not conducive for reporting on priorities"

"a substantial number of similar questions, and duplication"

"Overall the questionnaire risks 'losing sight of the forest due to all the trees standing in the way' (Swedish proverb) – i e a lot of information will be obtained - but how meaningful is it?"

"imminent risk that developing countries will see little gain in this reporting (where success mainly seem to be measured in whether work programmes, guidelines etc are incorporated and implemented – and not the actual changes on the ground) – also developed countries for that matter."

The National Board of Forestry has commented at length (here in our translation and abridgement):

1. The massive proportions of the questionnaire makes it impossible to supply answers within a reasonable work effort. Most organizations, especially non-governmental ones, will not have the manpower available. This also affects the quality of the answers given.
2. The questionnaire follows the structure and language of articles, decisions and work programmes too closely, resulting in very abstract and comprehensive questions that stakeholders cannot relate to. Many terms are open to very wide interpretations. What is e.g. a "challenge"?
3. Many developing countries with restricted administrative capacities will not be able to respond.

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