# Natura 2000 Seminars

## Natura 2000 Biogeographical Process

## Second Boreal Seminar
## Vilnius - Lithuania, 5 – 7 October 2016

## Seminar Input Document

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NATURA 2000


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Event: For more information on this seminar, see the Natura 2000 Communication Platform:
http://ec.europa.eu/environment/nature/natura2000/platform/events/events-upcoming/260_second_boreal_natura_2000_seminar_en.htm

Relevant documents can be found here:
http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

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## 1 Introduction

The Natura 2000 Biogeographical Process was launched by the European Commission in 2011 to assist Member States in managing Natura 2000 as a coherent ecological network. The Process provides practical means to exchange the information, experience and knowledge that are required to identify and define common solutions and develop cooperative actions, which can be delivered to ensure progress towards the EU 2020 Biodiversity Strategy targets, in particular Targets 1 & 2.

As responsibility for implementation of Natura 2000 and ensuring progress towards the EU's Biodiversity Strategy targets lies with Member States, they are key actors in the Natura 2000 Biogeographical Process. The Process also provides an opportunity to mobilise expert networks and inputs from other key stakeholders, including NGOs. This is important in order to tap into the direct experience of Natura 2000 practitioners, expert stakeholders and Member States' representatives with specific responsibilities for implementation of Natura 2000. This underlines the strategic and operational importance of the Process, the integrated inputs required from diverse actors and the opportunities available to develop concrete collaborative actions for future implementation.

As a long-term, continuing process, since the first Boreal Natura 2000 Biogeographical Seminar in Finland in 2012, the strategic orientations of the Natura 2000 Biogeographical Process have been further developed – these are described in Annex 1 to this document.

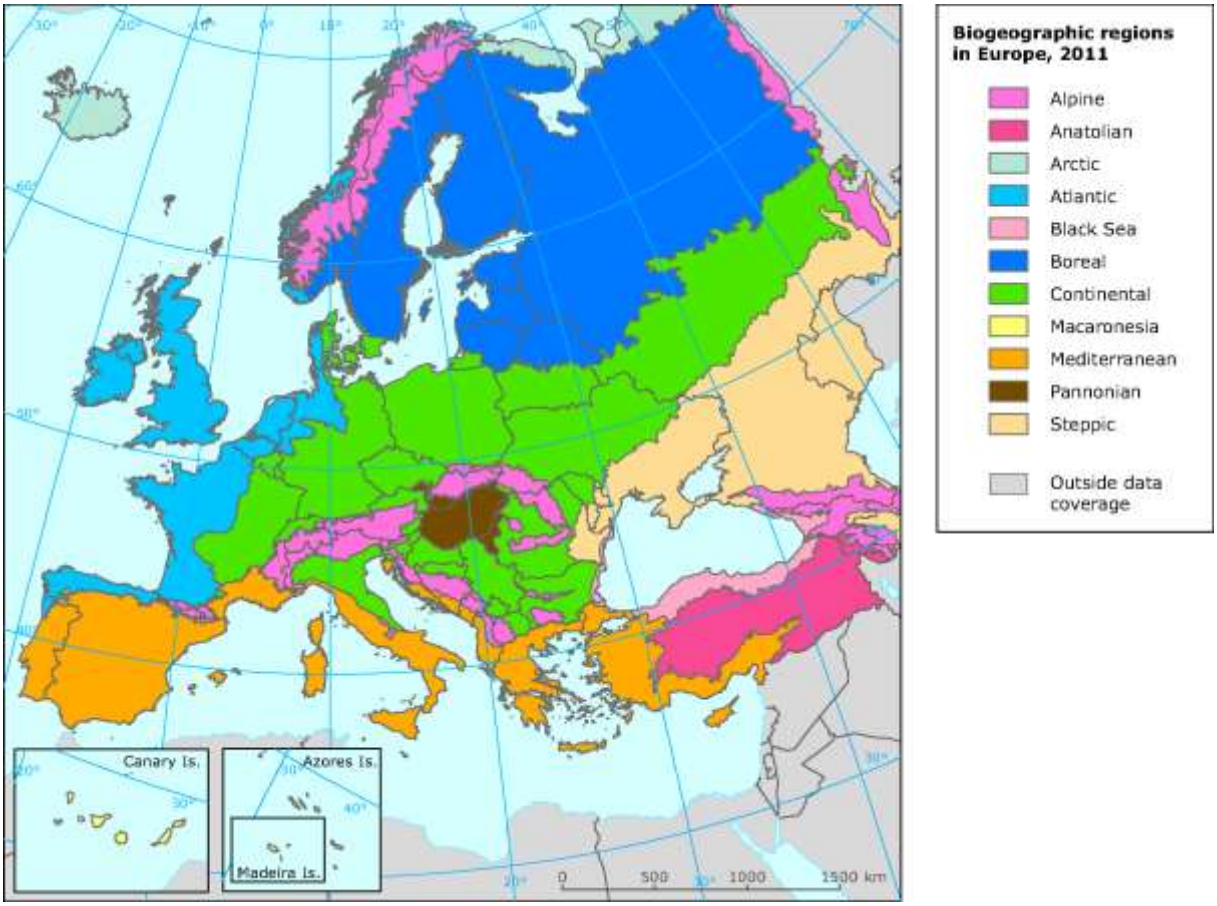

Figure 1 Biogeographical regions (European Environment Agency)

## 2 The 2nd Boreal Natura 2000 Biogeographical Seminar

Hosted by the Ministry of Environment of the Republic of Lithuania, this second Seminar is a milestone event in a continuing process of networking, information sharing and knowledge building. The primary purpose is to generate direct benefits to stakeholders as part of the Natura 2000 Biogeographical Process. The 2nd Boreal Seminar provides an important opportunity for participants to ensure progress in the region towards the EU 2020 Biodiversity Strategy targets. The programme is designed to bring expert stakeholders together to discuss, identify and (where possible) agree a range of cooperative actions which can be developed in future.

Over three days, the Boreal Seminar will aim to generate concrete outputs identified by participants, which can be further developed following the Seminar. Although some attention will be given to reviewing progress since the first Boreal Seminar (Finland, 2012), the focus is very much forward-looking – this will involve identifying:

- Possible new conservation issues/priorities – new cooperation actions shall be based, in particular, on the latest State of Nature Report, including a 'Roadmap' of agreed future (existing or planned) collaborative actions.
- Practical concrete actions and cooperation priorities, which can be developed and taken forward by various actors in the region.
- Sources of information and experience that capitalise on completed projects, available guidance and potential new proposals to increase synergies and collaboration opportunities.

The primary purpose of the Process is to provide practical means to ensure progress towards achievement of the favourable conservation status (FCS) of habitats and species of European Community importance in the Boreal biogeographical region. By focusing on common priorities and shared interests identified by experts as being important to improve habitat management, the objective of the Seminar is to help Boreal Member States and expert stakeholders to identify and agree on a number of collaborative, concrete actions that can be followed up to address the main common priorities and shared issues identified. Subject to the views of participating experts, the scope of focus within the Natura 2000 Biogeographical Process can also be extended to cover species management.

### 2.1 The Boreal seminar document

This document forms the basic reference for the second Boreal Natura 2000 Seminar. It presents, in a digested form, the contributions from habitat management experts from the five Boreal EU Member States[1] gathered during an online consultation exercise. Their first-hand expert knowledge has been complemented with information presented in published sources, in particular, habitat-related guidance and publications produced by the national authorities, the European Commission and the European Topic Centre on Biological Diversity (ETC-BD).

[1] Estonia, Finland, Latvia, Lithuania and Sweden

This document provides an overview of the Natura 2000 Biogeographical Process, its purpose and strategic objectives. It focuses on the objective of the second Boreal Natura 2000 Seminar, provides detail about the 'Low Hanging Fruit' habitats as an approach, as well as consideration of the Boreal habitats originally selected for priority consideration in 2012, and addresses thematic issues (chapter 2). Chapter 3 provides an analysis of comments given by Boreal experts about the strategic orientation of the Natura 2000 Biogeographical Process.

The core of this document (chapter 4) presents a summary account for the habitat groups selected for priority consideration, including habitats identified as 'Low Hanging Fruits', based on the Boreal expert consultation and latest Article 17 reports. Each habitat group chapter focuses on issues, challenges and the scope for (collaborative) solutions and opportunities. Using the latest Article 17 reports, a detailed fact sheet for each of the 34 Boreal habitats considered in this report are presented in annexes 4 to 8. These were produced by ILE-SAS in consultation with the ETC-BD. The final part of the document (chapter 5) presents an overview of other useful sources of reference, as well as relevant (LIFE) projects and initiatives currently in development or being implemented in the Boreal region.

## 2.2 Habitats selected for priority consideration and 'Low Hanging Fruit' Habitats

This 2nd Boreal Seminar focuses attention on ways to achieve progress towards the achievement of Favourable Conservation Status (FCS) for those habitats and species of community interest that have been identified for specific consideration in the Boreal biogeographical region. Reflecting the urgency to demonstrate progress towards achieving the targets of the EU 2020 Biodiversity Strategy in the short to medium term, the Seminar also provides an opportunity to consider new methods which can help to identify priorities for action. This includes the idea of addressing the so-called 'low hanging fruit' (LHF): the LHF methodology, developed by the ETC-BD in consultation with the European Commission has been previously circulated during the Boreal expert consultation exercise, but is annexed to this document for ease of reference – see Annex 3.

In summary though, benefitting from the latest Article 17 reports (2007–2012) and working together with the European Topic Centre on Biological Diversity (ETC-BD), the LHF approach involves identifying those species and/or habitats for which measurable improvements of conservation status could be reached by means of some measures which are straightforward to implement and achievable in the short term. Therefore, this Seminar will also enable participants to discuss the 'Low Hanging Fruit' approach and how it may be used to ensure increased progress towards reaching favourable conservation status for particular habitats. This will be considered along with progress and possible scope for increased cooperation with regard to those Boreal habitats originally selected for priority consideration. In addition, of course, it is worth emphasising that other habitats, or indeed species, which expert stakeholders may wish to discuss and work on together are open for discussion where there may be scope for practical cooperation and collaborative actions in the Boreal region.

Based on this approach, 18 Boreal habitats have been identified as Low Hanging Fruits (LHF). It is noted that 3 LHF habitats are also included in the 18 Boreal habitats previously identified for priority consideration. In total, therefore, 33 Boreal habitats are considered in this document: it

summarises their current status, management issues and threats, as well as possible solutions, which may form the basis for future cooperative actions in the Boreal region.

In the online consultation conducted to help prepare this document, Boreal experts were asked to share their knowledge of the status of all the habitats, including their views on the Boreal LHF habitats identified. All Boreal habitats are listed in Table 1 below.

Table 1. Overview of all habitats per habitat group in the Boreal biogeographical region

| **Freshwater habitat group** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 3260 | Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation | | Yes |
| 3180 | Turloughs | Yes | |
| 3130 | Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto Nanojuncetea | Yes | |
| 3210 | Fennoscandian natural rivers | yes | |
| **Wetland habitat group** | | | |
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 7110 | Active raised bogs | | Yes |
| 7120 | Degraded raised bogs still capable of natural regeneration | | Yes |
| 7160 | Fennoscandian mineral-rich springs and spring fens | Yes | Yes |
| 7230 | Alkaline fens | | Yes |
| 91D0 | Bog woodland | Yes | Yes |
| 7140 | Transition mires and quaking bogs | Yes | |
| **Forest habitat group** | | | |
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 9010 | 9010 Western Taiga | | Yes |

| | | | |
|---|---|---|---|
| 9050 | 9050 Fennoscandian herb-rich forests with Picea abies | | Yes |
| 9060 | 9060 Coniferous forests on, or connected to, glaciofluvial eskers | Yes | Yes |
| 9080 | Fennoscandian deciduous swamp woods | | Yes |
| 91E0 | Alluvial forests with Alnus glutinosa and Fraxinus excelsior | | Yes |
| 9040 | Nordic subalpine/subarctic forests with Betula pubescens ssp czerepanovii | Yes | |
| 91T0 | Central European lichen Scots pine forests | Yes | |
| **Grasslands habitat group** | | | |
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 6210 | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (important orchid sites) | | Yes |
| 6530 | Fennoscandian wooded meadows | | Yes |
| 6270 | Fennoscandian lowland species rich dry to mesic grasslands | | Yes |
| 6450 | Northern boreal alluvial meadows | | Yes |
| 6510 | Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) | | Yes |
| 9070 | Fennoscandian wooded pastures | | Yes |
| 1630 | Boreal Baltic coastal meadows | | Yes |
| 6110 | Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi | Yes | |
| **Other habitats** | | | |
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 1210 | Annual vegetation of drift lines | Yes | |
| 1220 | Perennial vegetation of stony banks | Yes | |
| 1330 | Atlantic salt meadows (Glauco-Puccinellietalia maritimea) | Yes | |
| 1640 | Boreal Baltic sandy beaches with perennial vegetation | Yes | |

| | | | |
|---|---|---|---|
| 4060 | Alpine and Boreal heaths | Yes | |
| 4030 | European dry heaths | Yes | |
| 8210 | Calcareous rocky slopes with chasmophytic vegetation | Yes | |
| 8230 | Siliceous rock with pioneer vegetation of the SedoScleranthion or of the Sedo albi-Veronicion dillenii | Yes | |

### 2.3 Thematic issues

Based on replies to the Boreal expert consultation and in discussion with the host, several thematic issues have been identified as a useful basis for specific discussion during the 2nd Boreal Seminar – these are:

- Integrated management approaches to Natura 2000
- Approaches to setting restoration priorities
- Communication and stakeholder engagement
- Setting conservation priorities

The themes will be of particular interest during the 2nd Boreal Natura 2000 Seminar mainly because of the scope they may hold for possible cooperation and collaborative actions. Also, there are several current projects and excellent examples related to these themes which will provide useful 'food for thought' to trigger discussions. Subject to the views of participants at the Seminar, there are opportunities to consider and share views about, for example:

- Issues related to integrated management planning linked to a multiple benefits agenda – for example, flood mitigation; coastal zone management; forestry management; locally-led and results-based agri-environmental schemes.
- Approaches to setting restoration priorities, including considerations of scale and scope for cooperation, as well as ways to improve and better structure coordination of such approaches.
- Methods and means to initiate, continue or improve communication about Natura 2000, particularly in terms of public engagement and outreach – for example, the value of working with Boreal flagship species and/ or habitat types to communicate the importance and purpose of Natura 2000 in tangible ways: also, effective solutions which may be applied, specifically related to management of conflicts.
- The approach used to identify "low-hanging fruit" and appropriate cooperative management actions which could be developed and implemented in order to accelerate progress towards improving the conservation status or achieving favourable conservation status of LHF habitats; setting conservation objectives at different scales; dealing with potentially conflicting conservation priorities; experience with Favourable Reference Values – at which levels can these usefully be set?

Although possibly out with the scope of the Natura 2000 Biogeographical Process, there is evidence of increasing interest to incorporate social, cultural and ecological aspects relevant to nature and its

conservation. The concept of working through and with Natura 2000 in order to generate and achieve cross-cutting multiple benefits, often across sectors, and in order to integrate diverse priorities in different policy agendas is of particular interest.

Such ideas are most obvious in relation to, for example, concepts of nature-based solutions where Natura 2000 sites' ecosystems and their services are being managed in order to protect against floods: also, there are equally opportunities to increase outreach and extend public engagement in Natura 2000 conservation management through, for example, collaborative work on flagship species or habitat types. In addition though, there is also evidence of the growing awareness of opportunities to strengthen implementation of Natura 2000 by consciously linking natural and cultural heritages. Particularly in the Boreal Region, though certainly not exclusively, there are possible multiple benefits to be derived from to strength of connections between people and place, including customs and traditions – for example, to promote eco-tourism and enhance visitor numbers.

## 3 General observations about Natura 2000 in the Boreal biogeographical region

In the online consultation, experts addressed a broad range of significant developments which have influenced Boreal habitats in positive and negative ways. Limited but noticeable improvements have been achieved in a variety of habitats, particularly in grasslands and wetlands. In addition, a positive increase is noted for particular species, such as southern butterflies, seals, otters and several bird species, and there has been an increase in deadwood in forests. There is also a clear increase in available information on habitats, and the amount of protected areas has increased.

Negative developments (pressures) noted by the experts include intensification in forestry, agriculture (resulting in increased eutrophication) and mining. A lack of natural disturbances such as forest fires and grazing is reported, which continues to have a negative impact on forest and grassland habitats. Specific points were made about contradictions and tensions between the Common Agricultural Policy and the EU 2020 Biodiversity objectives, which are observed to have a (continuing) negative effect on achieving favourable conservation status for Natura 2000 habitats and species.

A significant point identified during the online expert consultation relates to the need to improve consistency of interpretation about favourable conservation status, as well as opportunities to improve definitions regarding biogeographical level targets for conservation and restoration. In particular, opportunities (and the need) to improve coordination at national levels for work on Favourable Reference Values (FRVs) and cooperation between Boreal Member States on FRVs were observed. Perhaps more positively though, all habitats were viewed by experts as being possible candidates for further cooperation on FRVs between the Boreal Member States. Another point of consideration is at what stage biogeographical level FCS considerations or opportunities supersede the Member States legal obligations for FCS.

Another question, which relates to the scale of habitats, is what management measures or conservation approaches that are used on smaller scale Natura 2000 sites, may also be appropriate for larger or more expansive sites. There might be opportunities for cooperation on the basis of successful practices, even though this will depend on the scale of the projects.

In general terms, most experts are cautiously positive about the possibility to define such biogeographical level targets. For some habitats it might already be possible, but an important remark is that there is insufficient information available to do this for most of the habitats. Important gaps identified include a shared definition of ‘good’ and ‘bad’ quality, combined with a lack of adequate scientific evidence and the absence of scientific validity in historical baselines, as well as lack of understanding about historic distribution patterns. Also, some experts are sceptical about whether or not necessary information can be gathered at all: at the same time, there is concern about levels of knowledge to adequately address problems such as the unknown impact of climate change.

**Feedback from Boreal experts regarding the strategic orientation of the Natura 2000 Biogeographical Process (See Annex 2) and how the Process can be further applied in the Boreal region**

As part of the consultation exercise, the following feedback has been received from Boreal experts, summarised per strategic objective of the Natura 2000 Biogeographical Process.

**1. To strengthen and focus the work of the Process in contributing to meeting the EU 2020 Biodiversity objectives, primarily the full implementation of the nature directives (Target 1), i.e. the improvement of conservation status.**

Here, important opportunities through the Process identified by experts focus on ways to improve practical management objectives (objective setting), clarify implementation roles and responsibilities, and develop clear joint actions based on a mutually agreed and Boreal-wide focus. The idea of responsibility includes the need to meet the EU 2020 objectives, but also the opportunity to explore whether or not certain Member States may take a notional 'lead role' in some areas – for example, for the conservation of certain habitats which mainly occur in their territory. Some experts identified that joint efforts could benefit from a more structured approach, for example, through establishing expert cooperation platforms for particular habitats, or a taskforce to coordinate specific issues, such as the co-dependencies between CAP and the Rural Development Programme, or in relation to forestry and agriculture.

Increased national focus and regional awareness of the EU 2020 Biodiversity objectives was another area identified by Boreal experts where it would be useful to increase understanding about ways to ensure progress: experts also mentioned that providing sufficient time and resources to work specifically on the objectives would be necessary.

**2. To develop, discuss and work on implementation strategies for biogeographical level favourable reference values (FRVs).**

Experts highlighted that there are currently differences of interpretation about how different Member States and also experts define FRVs. Developing clear criteria for FRVs, linked with appropriate calculation methods, would help to improve definitions per habitat. It is suggested that it would be useful for Member States to cooperate to improve consistency of interpretation about FRVs, including establishing a clear timeframe for their use. However, it is also noted that current discussions about FRVs lack a clear scientific underpinning – this is seen to be essential in order to develop shared implementation strategies. Other key issues identified include the way in which FRVs can be translated into conservation targets for the regional, local and site level, the necessity to harmonise methods for mapping and conserving habitat types amongst the Boreal Member States and the need for a critical review and action regarding EU support schemes and policies which seem to support habitat degradation.

**3. Strengthening the marine aspect of the Process. Should this be left to the Marine Process or should particular issues also be dealt with in the Boreal Process?**

Experts' feedback indicates that the relation between the marine and terrestrial habitats should, in varying degrees, be based on cooperating and sharing knowledge on mutual issues. However, the clear differences between these habitats are mentioned several times and therefore there is

certainly value in sharing experience to inform how the Terrestrial and Marine Biogeographical Processes work and can be used. However, both Processes should be retained to allow specific attention for distinct issues and management approaches.

**4. Identifying further initiatives to facilitate and further develop cooperation between Member States, stakeholder organisations, environmental NGOs and specialist networks on the management of Natura 2000 as a coherent ecological network.**

Subjects identified for particular attention through the Natura 2000 Biogeographical Process include: continued cooperation in defining FRV descriptions; sharing information and approaches used for management requirements and setting nature conservation objectives; coordinated approaches for Natura 2000 monitoring, including improved sharing of data; improved integration of approaches to implementation of Natura 2000 and the Water Framework Directive. Across such subjects, the need for and value of continued networking and additional workshops are mentioned as being crucially important.

The developing of LIFE projects with multiple Boreal Member States is mentioned as a useful and practical means to further strengthen cooperation between countries. In addition, Boreal 'flagship' species and habitat types could be identified to ensure a stronger public outreach and participation.

# 4 Summary of comments received for all habitat groups

This chapter presents an overview status of the Boreal Biogeographical Region, but in particular of the four individual habitat groups within the region. It summarises current pressures, factors needed to improve the conservation status, and other relevant observations, per habitat group. In addition to the four habitat groups, 'other habitats' are included which have been identified as a result of applying the 'Low Hanging Fruits' methodology. The information provided is based on analyses of data from the latest article 17 reports, produced in consultation with the ETC-BD and incorporates feedback of boreal experts gathered during the online consultation exercise.

Due to the modest size of the response group certain factors in the results seem to be of much greater importance, but, in general, the experts' feedback is in line with the factors reported in the latest Article 17 reporting round.

Therefore, chapter 4 is structured as follows:

4.1. Summary of issues and solutions in the Boreal biogeographical region
4.2. General comments provided by experts for the Low Hanging Fruit habitats
4.3. Freshwater habitat group
4.4. Wetland habitat group
4.5. Forest habitat group
4.6. Grassland habitat group
4.7. Other habitats

Boreal experts were requested to participate in an online consultation in which they could address the status of Boreal habitats. For ease of reference, pie-charts, tables and text have been used to summarise key information. In addition, annexes 4 to 8 contain individual fact sheets per habitat, combined per habitat group, which provide detailed information on their status. These annexes have been developed in consultation with the ETC-BD.

## 4.1 Summary of issues and solutions in the Boreal biogeographical region

The following sections provide an overview of current pressures, conservation requirements, solutions and opportunities to improve habitats' conservation status per habitat group: in addition, equivalent information is summarised for the new LHF habitats in section 4.7. 'Other habitats'. Also, actions, cooperation opportunities and/or remarks for the habitats selected for priority consideration plus the low hanging fruit habitats are summarised per group. The overviews are based on analyses of data from the latest Article 17 reporting and expert feedback gathered during the consultation exercise.

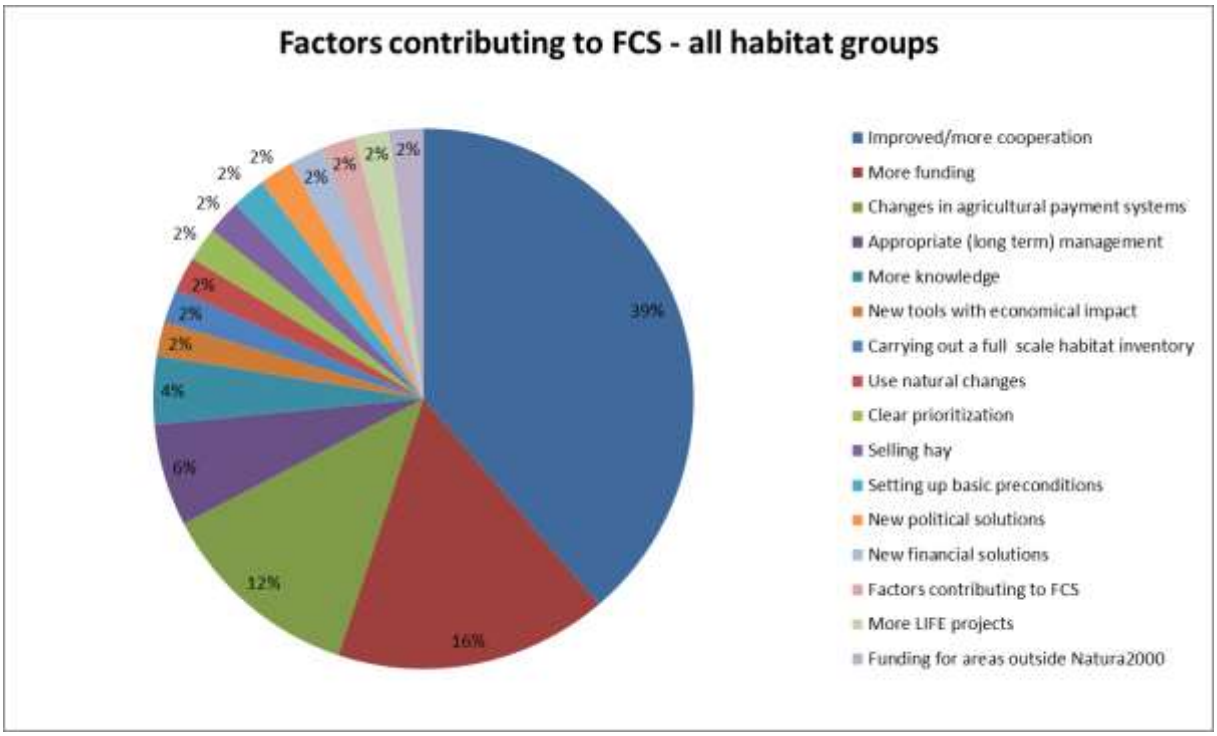


Figure 2 Results from Natura 2000 Biogeographical Process expert consultation: *Factors contributing to FCS for the habitats in the Boreal biogeographical region*

As shown in figure 2, based on the expert consultation, the most frequently reported means to improve conservation status for all habitat groups, is to continue with more and improved cooperation. This cooperation is either between Member States, for example by means of best practice sharing, or cooperation with other sectors, namely the agricultural and the forestry sectors. The need for greater funding is also identified by experts, especially for habitats where long-term, continuous management is required: adequate funding is seen to be critical for strengthening implementation of successful Natura 2000 management. The third largest opportunity identified in the expert consultation relates to the need to change and improve agricultural payment systems. For example, agri-environmental support schemes should focus more on enabling farmers and foresters in particular to play a greater role in achieving the requirements of the Natura 2000 Directives.

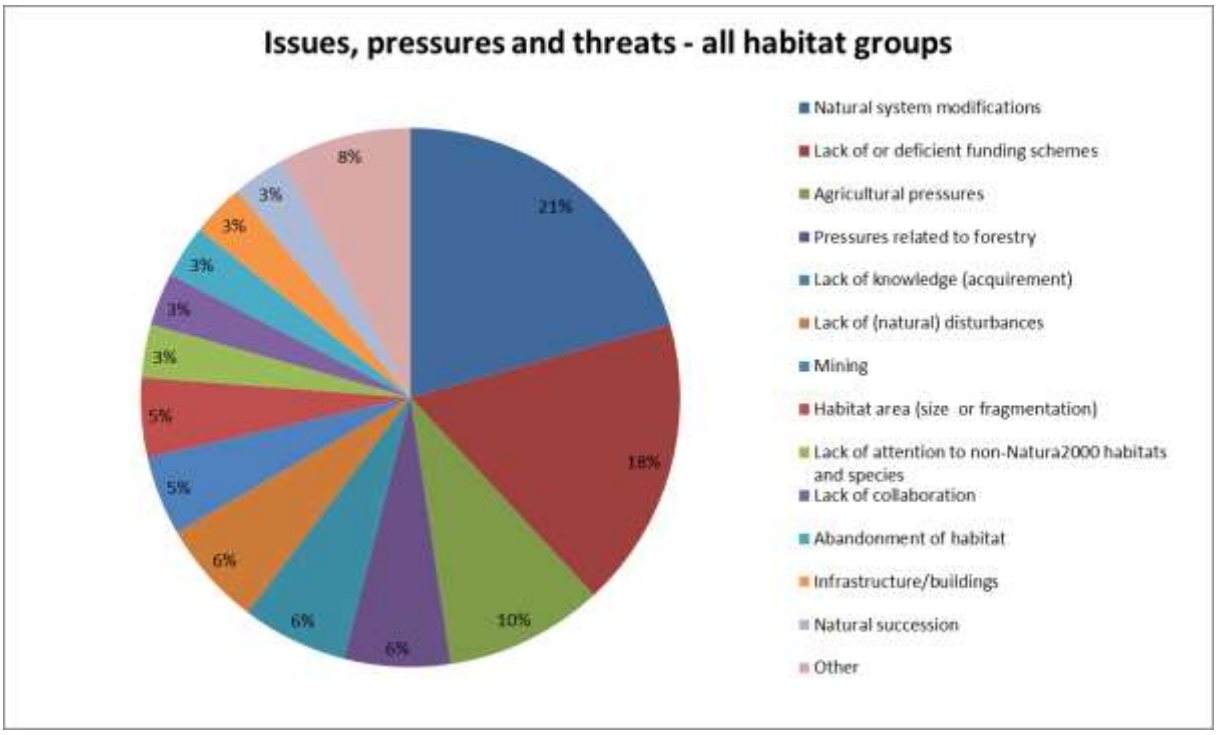


Figure 3 Results from Natura 2000 Biogeographical Process expert consultation: *Issues*, *pressures and threats for all the habitats in the Boreal biogeographical region*

For all habitats in all habitat groups, pressures related to the modification of natural systems (e.g. hydrological modifications and changes in nutrient compositions), a lack of or deficiency in funding schemes, and pressures from agricultural and forestry practices are mentioned most frequently by experts: in sum, these account for more than 50% of the total responses (see figure 3). Hunting and capture of migratory birds on their flyways are also noted by some experts to be sources of potential problems or conflicts: this though reflects the need and opportunity to engage more specifically and build dialogue with wider ranges of stakeholders.

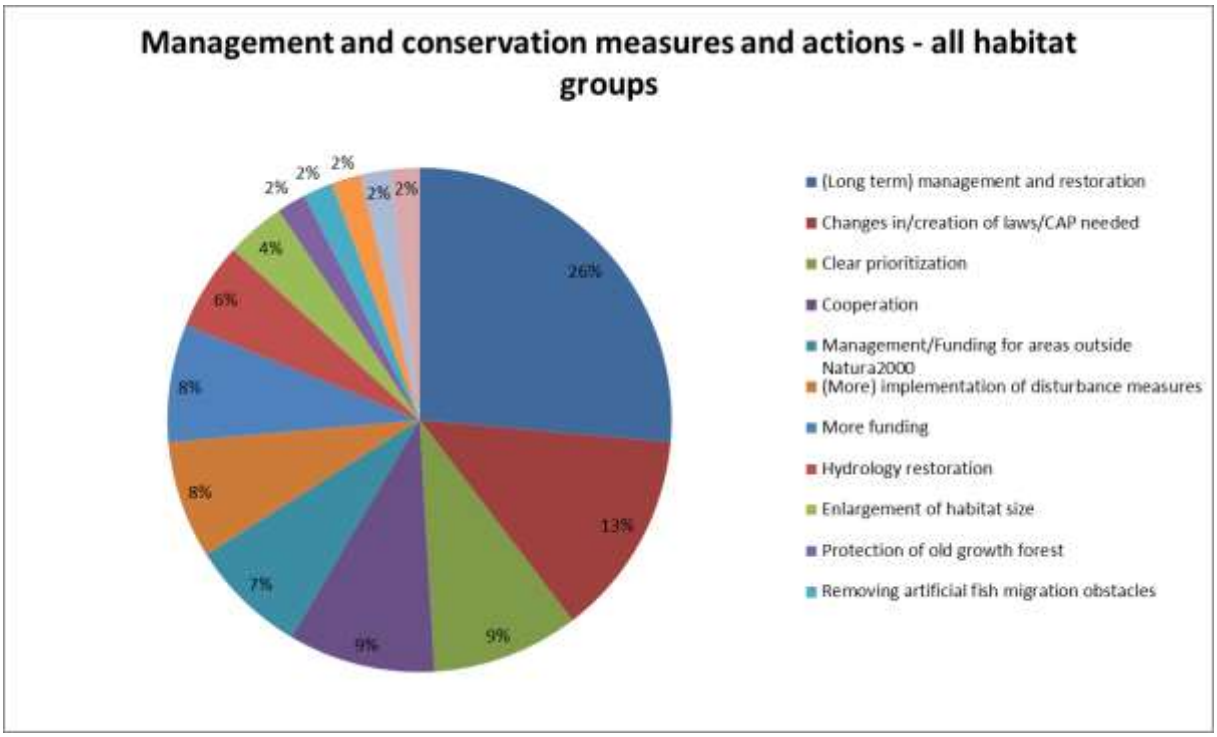


Figure 4 Results from Natura 2000 Biogeographical Process expert consultation: *Management and conservation measures and actions for the habitats in the Boreal biogeographical region*

Overall, the major conservation requirement that came forward most often is the need to develop long-term management and restoration strategies. This includes long-term management that also takes into account climate change impacts for example. Forests are the habitat group where long-term management is most often mentioned, due to the long rotation cycles and therefore relatively slow transition rates of forest habitats.

Improving the integration of diverse policy priorities was another important area identified. This would yield improved conservation status and progress towards achieving Targets 1 and 2 of the EU 2020 Biodiversity Strategy in particular. Specifically, experts mentioned the need to focus on integrating and aligning the priorites of Natura 2000 with agricultural policies.

Increased cooperation and the need for clear prioritisation of nature conservation management actions were both identified as important, in particular cooperation between Member States, and also trans-border cooperation. Clear prioritisation is needed to ensure that resources are aligned to habitats where there are most significant or urgent pressures. Areas identified that would benefit from greater cooperation include integrated management approaches in the agriculture and forestry sectors, as well as, in general terms, scientific research.

### 4.2 General comments provided by experts for the Low Hanging Fruit habitats

Boreal experts were also consulted on the newly selected Low Hanging Fruits and, specifically, the types of cooperative actions they could foresee as being implemented to achieve greater progress towards improved conservation status. Their feedback also provided information on what experts consider the 'Low***est*** Hanging Fruit', as well as information about other habitats that they consider as additional Low Hanging Fruits. The 'Low***est*** Hanging Fruits' selected by the experts are displayed in table 2. Three of the habitats were marked as 'Low***est*** Hanging Fruits' by more than one expert.

These are 91D0 (Bog woodland), 9060 (Coniferous forests on, or connected to, glaciofluvial eskers) and 4030 (European dry heaths). Table 3 shows habitats that the experts consider potential Low Hanging Fruit habitats.

The results produced, however, reflect the fact that experts are more likely to address only those habitats of which they have direct experience or specialist knowledge. In addition, most experts addressed Low Hanging Fruits habitats for their own country and acknowledge that the status and conservation needs of a specific Low Hanging Fruits habitat might vary in other Member States. This is borne out also by the fact that there are relatively large differences between Member States in the conservation status of several LHF habitats. An additional point raised by one expert is that, in some LHF habitats, the area cover within the Boreal region may be far below reference values.

Table 2. Low***est*** Hanging Fruits based on results of online expert consultation

| | Estonia | Latvia | Lithuania | Sweden | Finland |
|---|---|---|---|---|---|
| **1210** Annual vegetation of drift lines | 1 | | | | |
| **1220** Perennial vegetation of stony banks | 1 | | | | |
| **91D0** Bog woodland | 1 | | | 1 | |
| **7160** Fennoscandian mineral-rich springs and springfens | | | | | 1 |
| **1640** Boreal Baltic sandy beaches with perennial vegetation | | | | | 1 |
| **9060** Coniferous forests on, or connected to, glaciofluvial eskers | 1 | 1 | | | |
| **91T0** Central European lichen Scots pine forests | | 1 | 1 | | |
| **4030** European dry heaths | | 1 | 1 | | |
| **7140** Transition mires and quaking bogs | | | | 1 | |
| **3210** Fennoscandian natural rivers | | | | 1 | |
| **9040** Nordic subalpine/subarctic forests with Betula pubescens ssp czerepanovii | | | | 1 | |

Table 3. Potential other Low Hanging Fruits habitats proposed by experts in the online expert consultation

| | Estonia | Latvia | Lithuania | Sweden | Finland |
|---|---|---|---|---|---|
| **3160** Natural dystrophic lakes and ponds | 1 | | | | |
| **1310** Salicornia and other annuals colonising mud and sand | 1 | | | | |
| **8240** Limestone pavements | 1 | | | | |
| **7120** Degraded raised bogs still capable of natural regeneration | 1 | | | | |
| **9180** Tilio-Acerion forests of slopes, screes and ravines | 1 | | | | 1 |
| **2180** Wooded dunes of the Atlantic, Continental and Boreal region | 1 | | | | |
| **3260** Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation | 1 | | | | |
| **9070** Fennoscandian wooded pastures | 1 | | | | |
| **1630** Atlantic salt meadows (GlaucoPuccinellietalia maritimae) | | | | | 1 |
| **9020** Fennoscandian hemiboreal natural old broad-leaved deciduous forests (*Quercus, Tilia, Acer, Fraxinus or Ulmus*) rich in epiphytes | | | | | 1 |
| **7220** Petrifying springs with tufa formation (Cratoneurion) | | | | | 1 |
| **91D0** Bog woodland | 1 | | | | |
| **6120** Semi-natural dry grasslands (FestucoBrometalia) | | | | 1 | |

## 4.3 Freshwater habitat group

### 4.3.1 Summary description

Three LHF habitats (3180, 3130, 3210) have been added to the one habitat originally selected for priority consideration. Based on the Article 17 reporting, the freshwater habitats are assessed as unfavourable–inadequate or unfavourable-bad with a stable or negative trend. Some habitats are rated as favourable in certain Member States, but their limited coverage or presence in these countries does not influence the overall negative status.

Table 4. Boreal freshwater habitat group

| **Boreal freshwater habitats** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 3260 | Water courses of plain to montane levels with the Ranunculion fluitantis and Callitricho-Batrachion vegetation | | Yes |
| 3180 | Turloughs | Yes | |
| 3130 | Oligotrophic to mesotrophic standing waters with vegetation of the Littorelletea uniflorae and/or Isoeto Nanojuncetea | Yes | |
| 3210 | Fennoscandian natural rivers | yes | |

### 4.3.2 Factors contributing to a Favourable Conservation Status

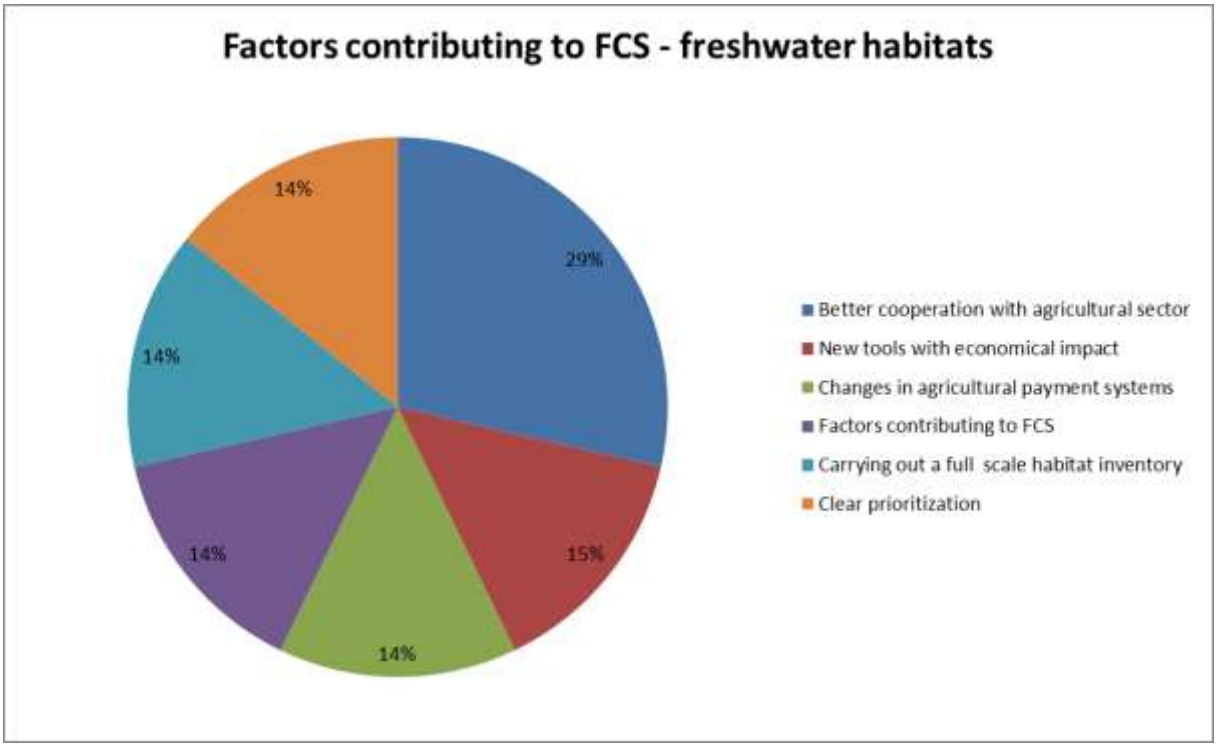


Figure 5 Results from Natura 2000 Biogeographical Process expert consultation: *Factors contributing to FCS - freshwater habitats in the Boreal biogeographical region*

Experts identified six factors which they regard as holding potential opportunities and solutions for freshwater habitats. Better cooperation, in particular with the agricultural sector, would improve the quality of freshwater habitats. There are opportunities to develop new (innovative) tools, which can assist management effectiveness, whilst also creating a useful economic impact.

'Factors contributing to FCS' involve a change in mindset, shifting away from traditional habitat management protection approaches to management regimes which are more focused on ensuring the quality of habitats: often, this will require greater attention for management restoration measures, which did not necessarily feature in approaches where habitat protection was the priority. This shift in mindset is likely to have implications for current conservation systems, including subsidies – experts identify that such systems were set up when the context for nature conservation was different and a change of mindset is likely to be required to enhance the status of freshwater habitats.

### 4.3.3 Issues, pressures and threats

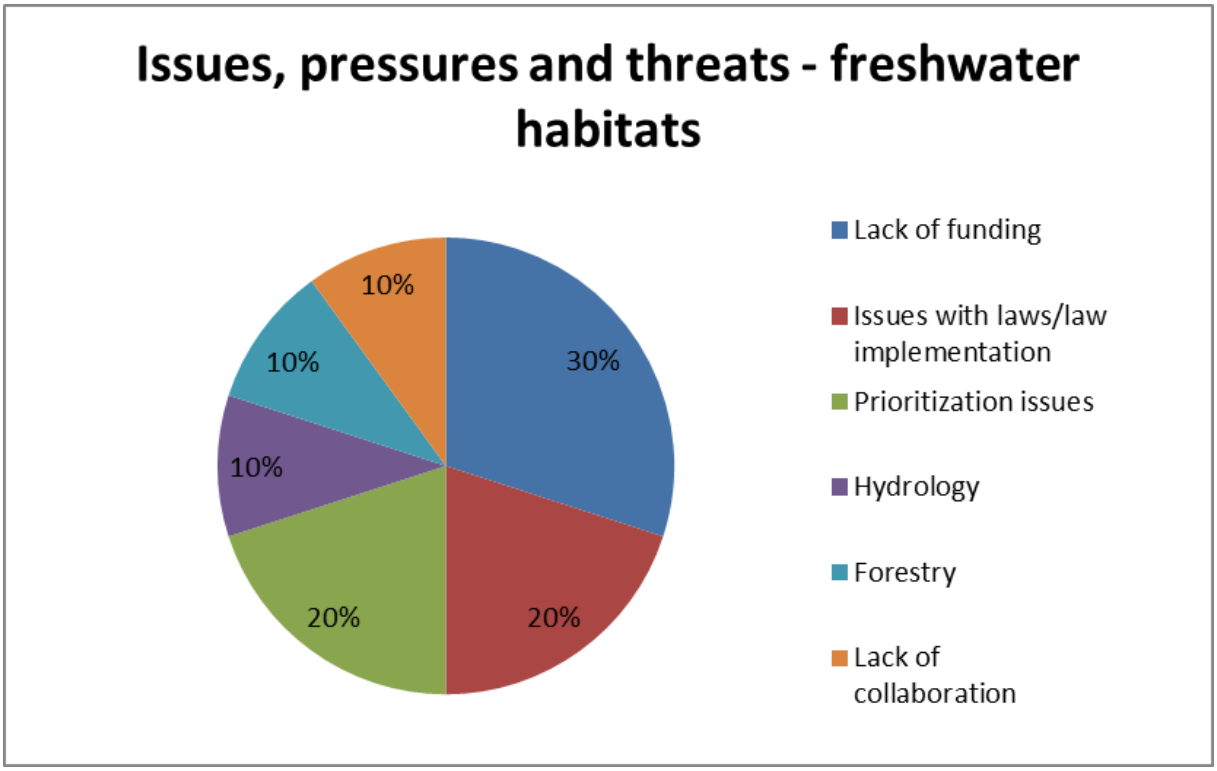


Figure 6 Results from Natura 2000 Biogeographical Process expert consultation: *Issues, pressures and threats - freshwater habitats in the Boreal biogeographical region*

Insufficient funding results in pressure on freshwater habitats, especially when management of a habitat type needs to be continuous: the stop-start nature of some funding streams is regarded as an issue - for example, when a project finishes it is not always possible to continue with appropriate maintenance management actions over the longer term. Also, inappropriate use of EU structural funds and inconsistencies in approach to implementation of the Water Framework Directive are identified as significant pressures. Equally, inadequate prioritisation schemes can mean that habitats that may be in most need of urgent management interventions may not receive the resources required.

Other pressures, also identified in the Article 17 reporting, include: fertilisation, ground and surface water pollution, modification of water regimes, underground mining, modification of hydrographic functioning, abandonment of pastoral systems, lack of grazing, expansion of urbanised areas, succession planning, barriers to migration, and eutrophication. Other Article 17 reported disturbances are outdoor sport, leisure and recreational activities, water extraction and diseases. The construction of hydroelectric power plants was identified as the main reason for the change in hydrology and barriers to migration. A common pressure that was stressed by experts and identified in the Article 17 reporting relates to restoration of hydrological systems. Here, insufficient funding, the complexities of legal issues and implementation processes, and inadequate prioritisation are considered to be more significant pressures by the experts.

### 4.3.4 Management and conservation measures and actions

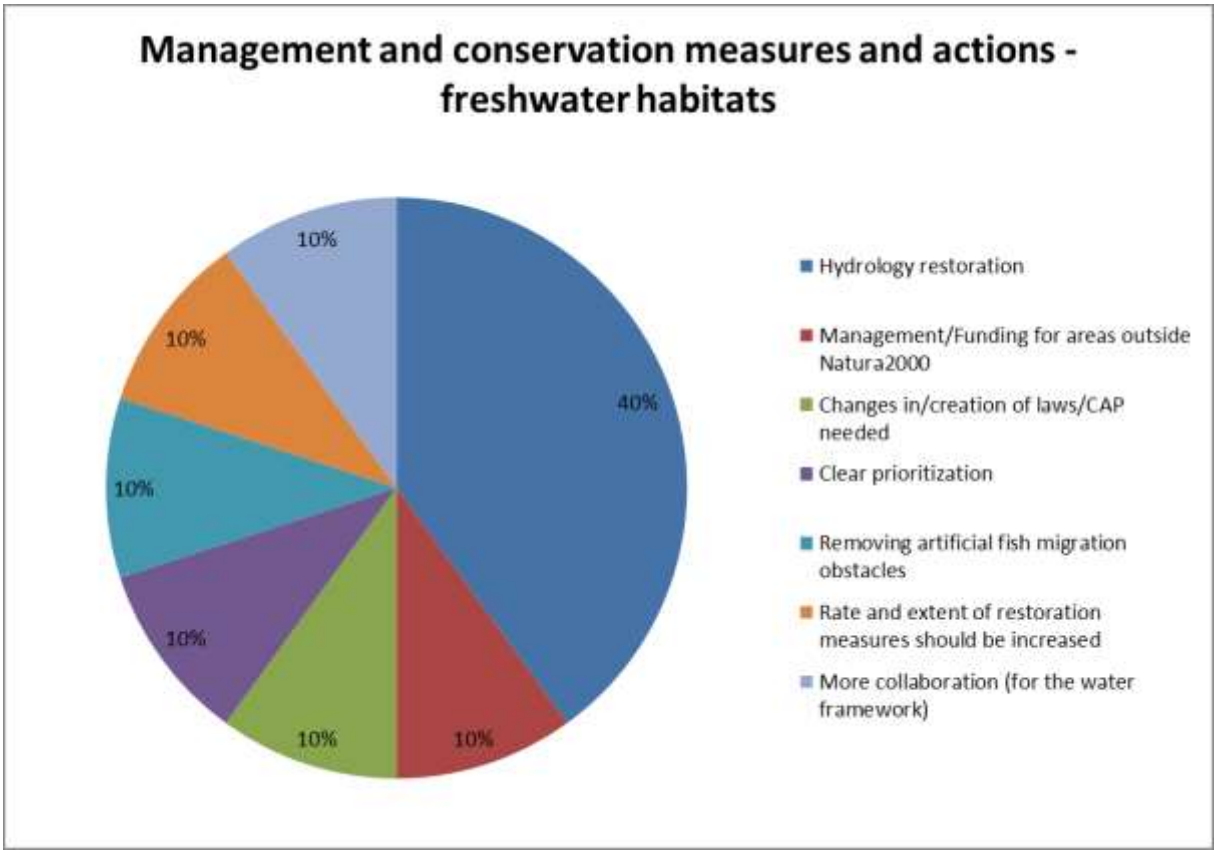


Figure 7 Results from Natura 2000 Biogeographical Process expert consultation: *Management and conservation measure and actions - freshwater habitats in the Boreal biogeographical region*

Improving the water quality and water regime was the most important conservation requirement for all freshwater habitats in the Article 17 reporting. Restoration of hydrological values was the most commonly required conservation measure identified by the experts for freshwater habitats. Experts identified six other habitat requirements, as shown in the graph above.

The Article 17 reporting mentions establishing protected areas and legal protection of habitats and species as a conservation requirement for habitats 3260, 3130 and 3210. Furthermore, other wetland-related management measures reported under Article 17 include: adaptation of crop production and forest management approaches, regulation of fisheries, urban and industrial waste management, restoration of coastal areas, and management of water abstraction.

A factor which was prominent in the results of the first seminar, but which may still be relevant to consider, is the use of river catchment management approaches as a means to address problems with freshwater habitats.

## 4.4 Wetland habitat group

### 4.4.1 Summary description

Of the six Boreal wetland habitats, one LHF habitat (7140) has been added to the five originally selected for priority consideration. Two of the original habitats (7160 and 91D0) have also been defined as LHF. Based on the Article 17 reporting, the wetland habitats are assessed as unfavourable–inadequate or unfavourable–bad. However, 7120 is unfavourable–bad with a positive

trend, while all other habitats have a negative trend. It is noted though that some habitats are rated as favourable in certain Member States, but are insufficient in scale of coverage to influence the overall negative status.

Table 5. Boreal wetland habitats

| **Wetland habitat group** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 7110 | Active raised bogs | | Yes |
| 7120 | Degraded raised bogs still capable of natural regeneration | | Yes |
| 7160 | Fennoscandian mineral-rich springs and spring fens | Yes | Yes |
| 7230 | Alkaline fens | | Yes |
| 91D0 | Bog woodland | Yes | Yes |
| 7140 | Transition mires and quaking bogs | Yes | |

### 4.4.2 Factors contributing to a Favourable Conservation Status

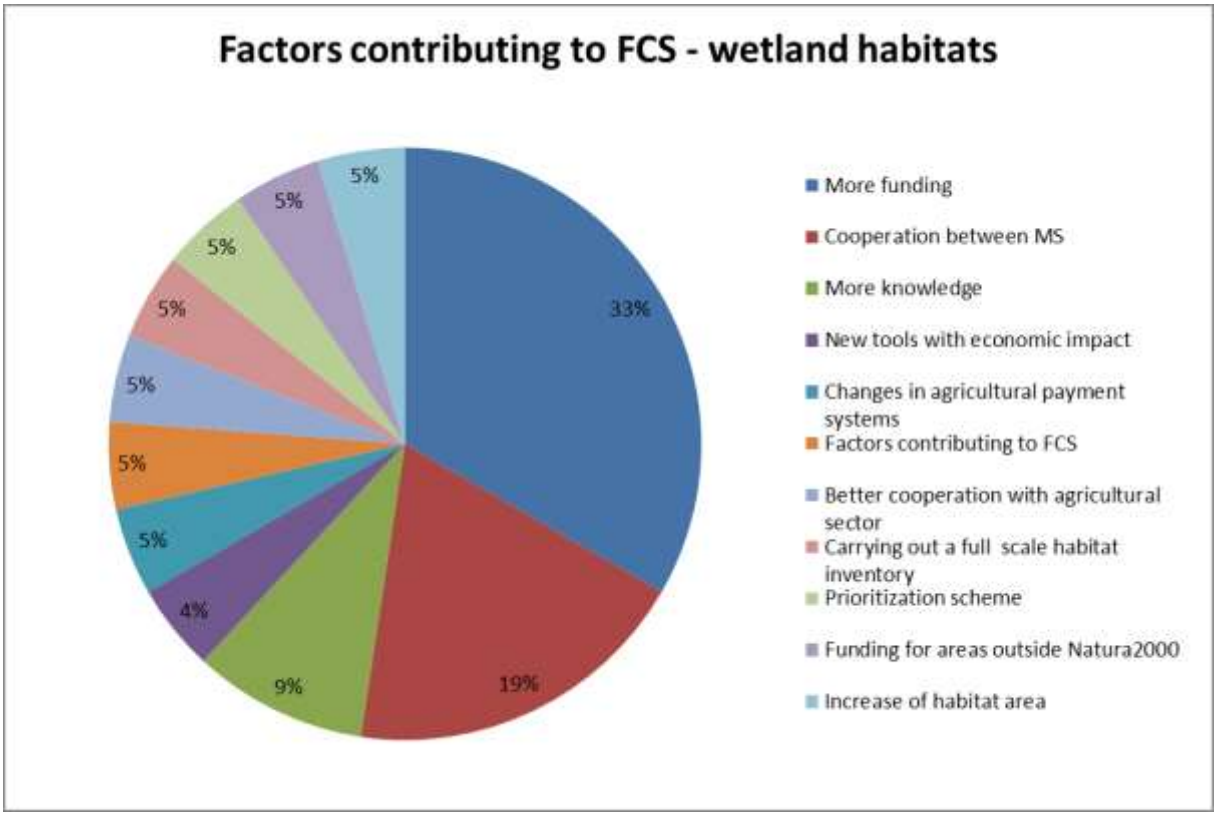


Figure 8 Results from Natura 2000 Biogeographical Process expert consultation: *Factors contributing to FCS - wetland habitats in the Boreal biogeographical region*

For wetland habitats, increased funding is seen to be the most effective means to ensuring progress to reach Favourable Conservation Status – the opportunities and solutions are depicted above in figure 8. Cooperation between Member States is considered to be essential to improve habitat quality, especially in ways that enable sharing of best practices, networking and knowledge building about practical management approaches for wetland habitats. In particular, it was reported that site visits and field trips are particularly valuable to enable greater and more in-depth understanding about management approaches for specific habitat types in situ. Also, additional benefits were identified in relation to increased development and application of management tools and approaches, which also would generate greater economic impacts – for example, development of innovative ideas in relation to increased commercialisation in and around wetlands, such as boosting eco-tourism or increasing visitor numbers through birdwatching.

### 4.4.3 Issues, pressures and threats

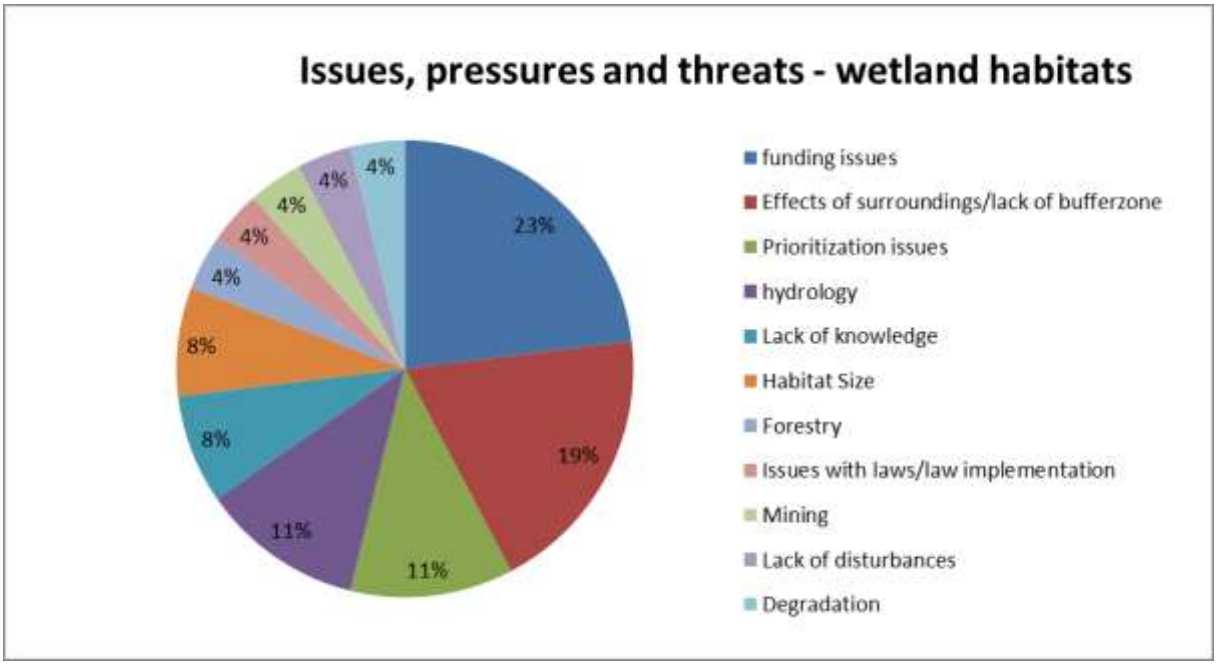


Figure 9 Results from Natura 2000 Biogeographical Process expert consultation: *Issues, pressures and threats - wetland habitats in the Boreal biogeographical region*

Experts reported 11 different pressures on wetland habitats. Hydrology is mentioned as a pressure by 11% of the experts. In the Article 17 reporting, changes in the hydrological system are an important pressure on all the wetland habitats. Mining is a reported issue in the Article 17 reporting for four habitats; forestry and lack of disturbances, such as grazing, are also reported. There are also some pressures reported under Article 17 that are not mentioned by the experts: species composition change due to succession is a pressure for 4 habitats, changes in chemical composition due to pollution and eutrophication, and, lastly, abandonment of pastoral systems is a pressure for habitat 7230.

### 4.4.4 Management and conservation actions

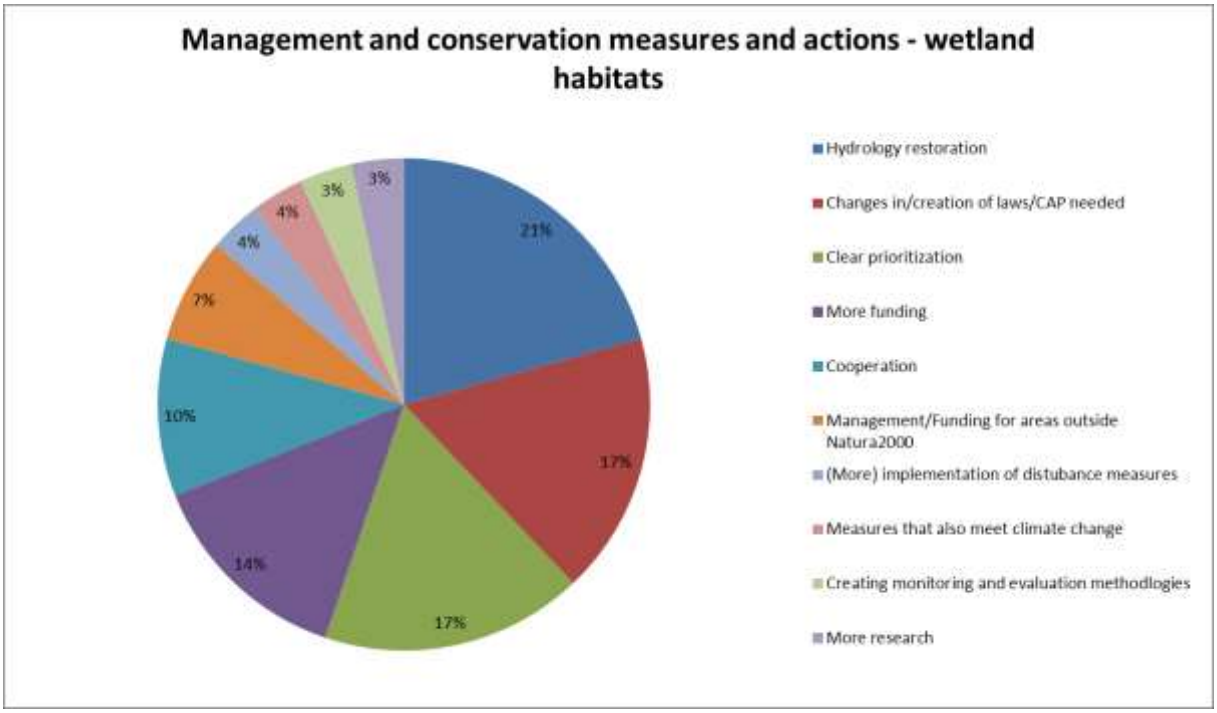


Figure 10 Results from Natura 2000 Biogeographical Process expert consultation: *Management and conservation measures and actions - wetland habitats in the Boreal biogeographical region*

In order to improve the conservation status of wetlands, as stated above, restoration of hydrology is the conservation management action most frequently identified, especially when this is matched with management approaches that enable clearer identification of restoration priorities: in practical terms, it was felt that such an approach to identifying restoration priorities would help to focus on habitats that need the most attention or resources. Changes in or creation of laws would help too, especially in relation to the CAP.

In the Article 17 report, hydrology restoration was also reported as the most important conservation priority for all six wetland habitats. Article 17 also reports that it is necessary to protect wetlands by increasing the area of formally protected area. Specifically, a focus on the protection of individual species might also improve the conservation status for habitats 7120, 7110 and 7140. For habitat 71D0 in particular, improvement in restoration of forest habitats and adaptation in forest management are required.

### 4.5 Forest habitat group

#### 4.5.1 Summary description

Of the eight Boreal forest habitats, three LHF habitats (9040, 9060 and 91T0) have been added to the five originally selected for priority consideration. Based on the Article 17 reporting, the forest habitats are assessed as unfavourable–bad, with the exception of 9040, which is being assessed as unfavourable–inadequate.

Table 6. Boreal forest habitats

| **Forest habitat group** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 9010 | 9010 Western Taiga | | Yes |
| 9050 | 9050 Fennoscandian herb-rich forests with Picea abies | | Yes |
| 9060 | 9060 Coniferous forests on, or connected to, glaciofluvial eskers | Yes | Yes |
| 9080 | Fennoscandian deciduous swamp woods | | Yes |
| 91E0 | Alluvial forests with Alnus glutinosa and Fraxinus excelsior | | Yes |
| 9040 | Nordic subalpine/subarctic forests with Betula pubescens ssp czerepanovii | Yes | |
| 9060 | Coniferous forests on, or connected to, glaciofluvial eskers | Yes | Yes |
| 91T0 | Central European lichen Scots pine forests | Yes | |

### 4.5.2 Factors contributing to a Favourable Conservation Status

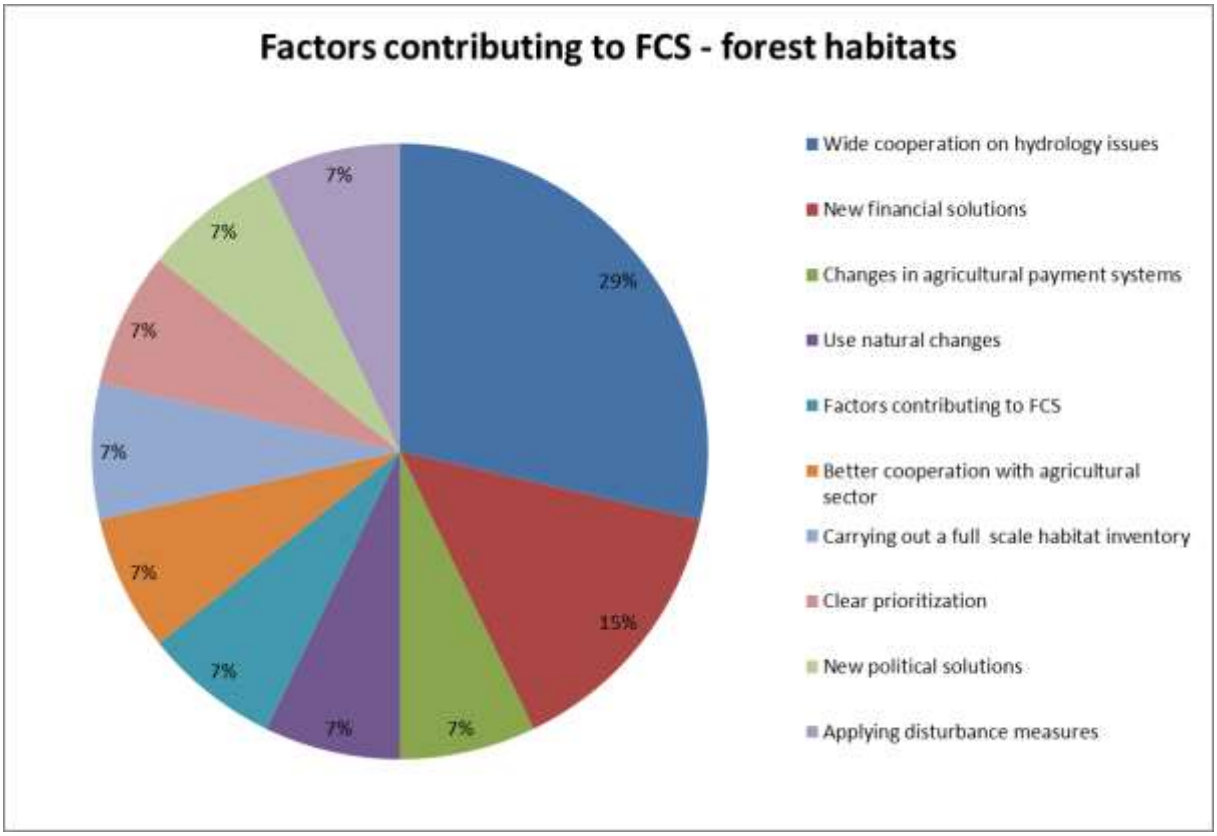


Figure 11 Results from Natura 2000 Biogeographical Process expert consultation: *Factors contributing to FCS - forest habitats in the Boreal biogeographical regions*

In total, 10 different solutions and opportunities for the forest habitat types were reported by experts. Wider cooperation on hydrology issues was mentioned most often, in particular where that would benefit 'multi-task' or integrated management planning approaches: integrated management planning, in particular ecosystem management, is especially useful when there are complex inter-dependencies between different habitat types and co-dependencies, for example on surface water ecosystems. Experts also put forward that there would be value in developing new innovative financial mechanisms for forest habitats, where sustainable management could also increase profitability.

### 4.5.3. Issues, pressures and threats

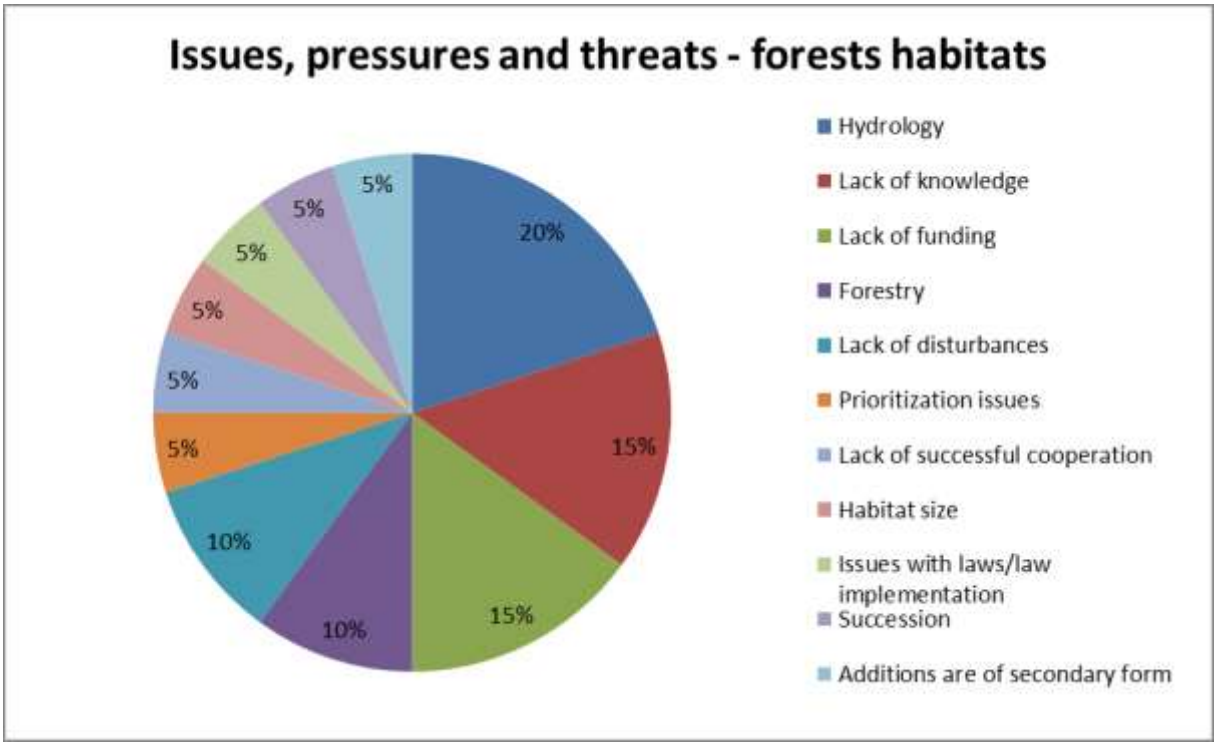


Figure 12 Results from Natura 2000 Biogeographical Process expert consultation: *Issues, pressures and threats - forest habitats in the Boreal biogeographical region*

According to the experts, issues related to hydrological conditions place most pressure on forest habitats. This corresponds with figure 11 which highlights the need for wider cooperation on hydrological issues. Experts feel there is insufficient scientific data and/or management information available, as well as a lack of experience in forest management (indicated as 'Lack of knowledge' in figure 12). Forests are slow ecosystems with long rotation cycles and experts observe that longer-term, strategic funding mechanisms are required to ensure long-term management.

In the Article 17 reporting, hydrology issues are also mentioned as an important pressure on specific forest habitat types (9010, 9050, 9080 and 91E0). Forest management practices are also reported as being a pressure on forest habitats. Other pressures reported in the Article 17 reporting are: air pollution, fertilisation, damage by herbivores, invasive alien species, habitat fragmentation, thickening litter layer, gradual eutrophication, sand and gravel extraction, rising temperature, damage by moths, biocenotic evolution and recreational pressures.

### 4.5.4. Management and conservation actions

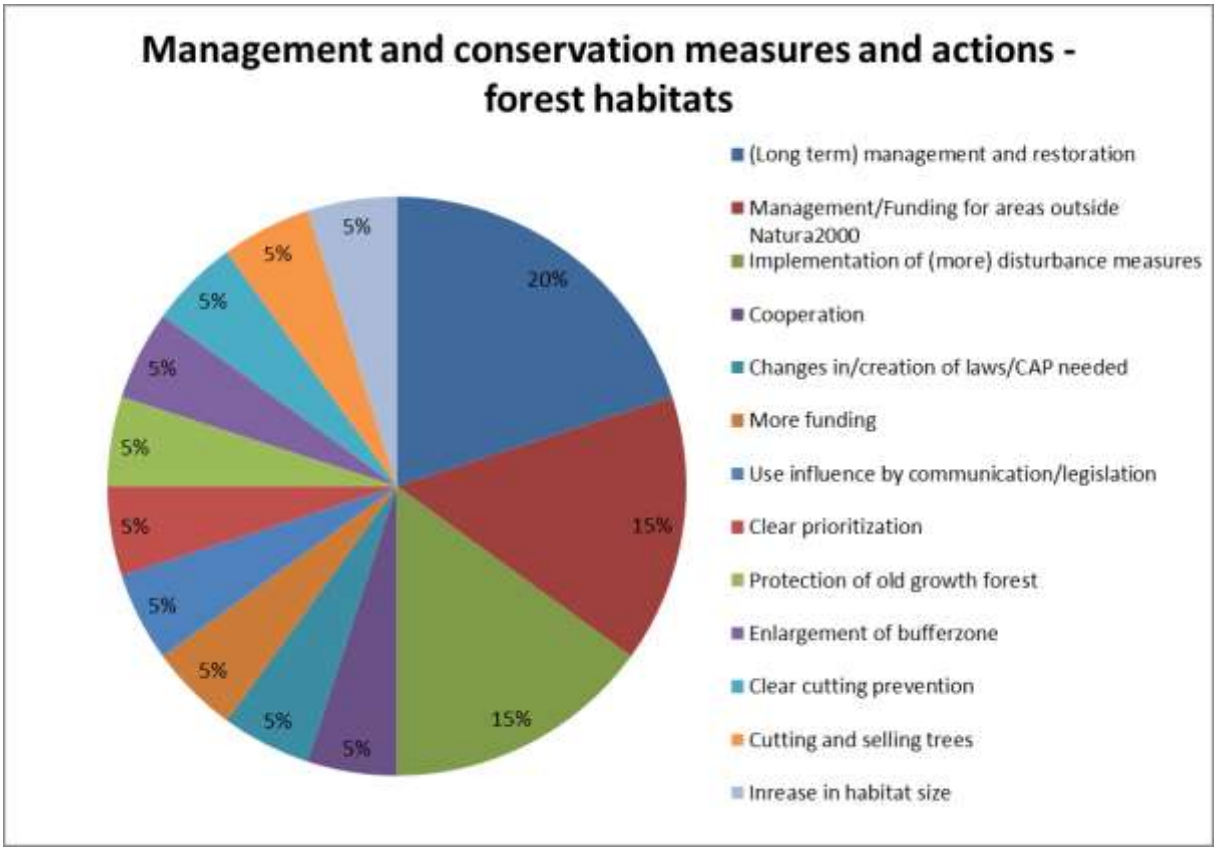


Figure 13 Results from Natura 2000 Biogeographical Process expert consultation: *Management and conservation measures and actions - forest habitats in the Boreal biogeographical region*

Experts identified the need for long-term management and restoration measures to be applied in order to improve the conservation status of forest habitats. Forests have long rotation cycles and therefore it is important that there is a long-term conservation plan. Management and funding for areas outside Natura 2000 are frequently reported as being required, as those areas can also improve the situation within the protected areas. Increased and more frequent use of 'disturbance measures', such as grazing and fire, would also benefit the condition of forest habitats. From Article 17 reports, increasing protected area size is seen to be a required measure for almost all forest habitats. Adaptation of forest management (e.g. allowing succession in the case of habitat 9040) and restoration are also reported as being important for all the forest habitats.

## 4.6. Grassland habitat group

### 4.6.1. Summary description

Of the eight grassland habitats, one LHF habitat (6110) has been added to the seven originally selected for priority consideration. Based on the Article 17 reporting, nearly all grassland habitats continue to have unfavourable–bad conservation status with a deteriorating trend. Only habitat 1630 has an unfavourable–bad conservation status with a positive qualifier. For a small number of habitats there have been positive developments in certain Member States, but this does not influence the overall negative status.

Table 7. Boreal grassland habitats

| **Grasslands habitat group** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 6210 | Semi-natural dry grasslands and scrubland facies on calcareous substrates (*Festuco-Brometalia*) (important orchid sites) | | Yes |
| 6530 | Fennoscandian wooded meadows | | Yes |
| 6270 | Fennoscandian lowland species rich dry to mesic grasslands | | Yes |
| 6450 | Northern boreal alluvial meadows | | Yes |
| 6510 | Lowland hay meadows (Alopecurus pratensis, Sanguisorba officinalis) | | Yes |
| 9070 | Fennoscandian wooded pastures | | Yes |
| 1630 | Boreal Baltic coastal meadows | | Yes |
| 6110 | Rupicolous calcareous or basophilic grasslands of the Alysso-Sedion albi | Yes | |

### 4.6.2. Factors contributing to a Favourable Conservation Status

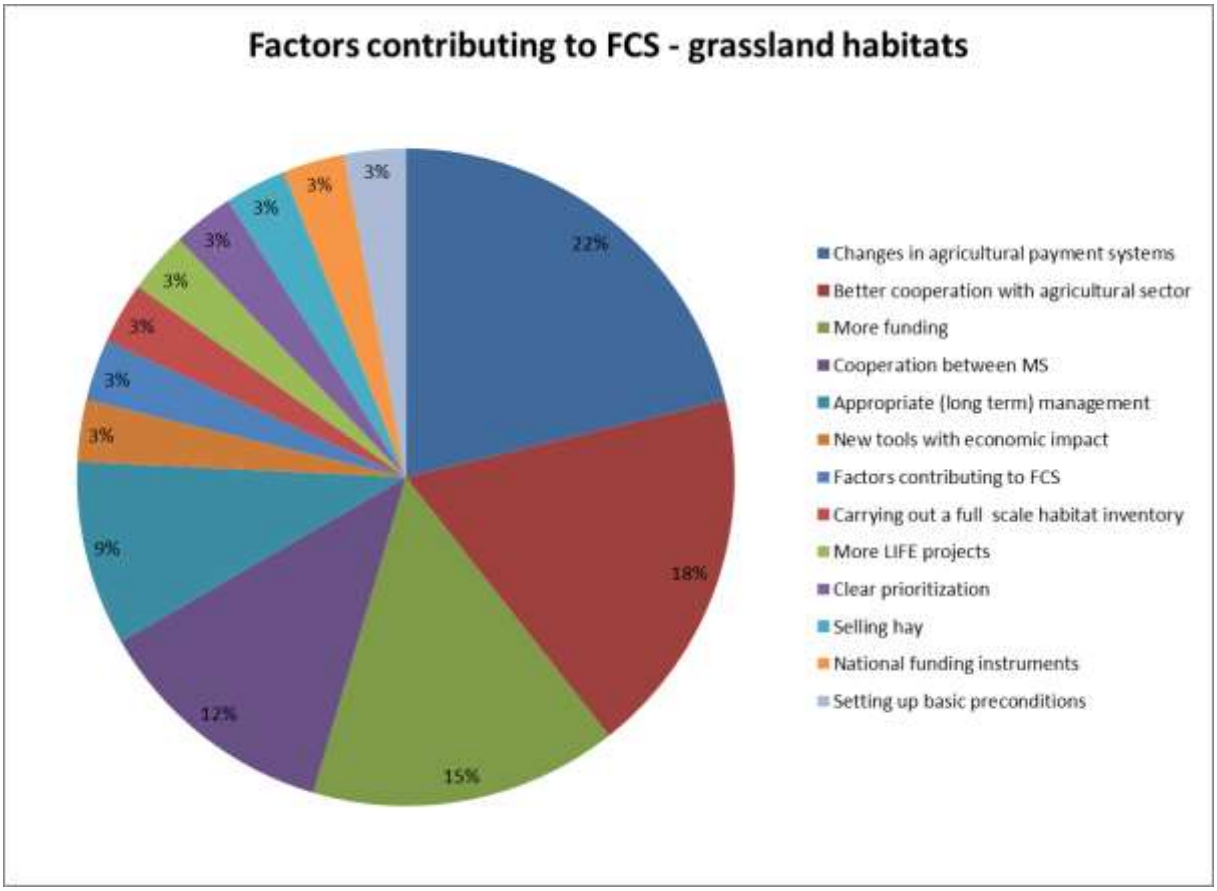


Figure 14 Results from Natura 2000 Biogeographical Process expert consultation: *Factors contributing to FCS - grassland habitats in the Boreal biogeographical region*

For grassland habitats, there is a need to streamline agri-environmental schemes with Natura 2000 management priorities: the development of increased and better cooperation with the agricultural sector is critical to improving the conservation status of grassland habitats (and related species). In addition, increased cooperation between Member States, to share best practices and continue networking, is a 'high demand area' for Boreal experts. More funding for continuous grassland management would also be of major benefit and help to ensure the continuity of management approaches required to maintain or achieve favourable conservation status of grassland habitats.

It is noted that there are examples of good practice, which can be capitalised upon, which demonstrate lessons learned from training provided for farmers receiving agri-environmental support payments through the Rural Development Programme: farmers are keen to learn, increase their understanding of grassland ecosystem functioning and grassland conservation priorities so that they can play a fuller role in delivering nature conservation priorities.

### 4.6.3. Issues, pressures and threats

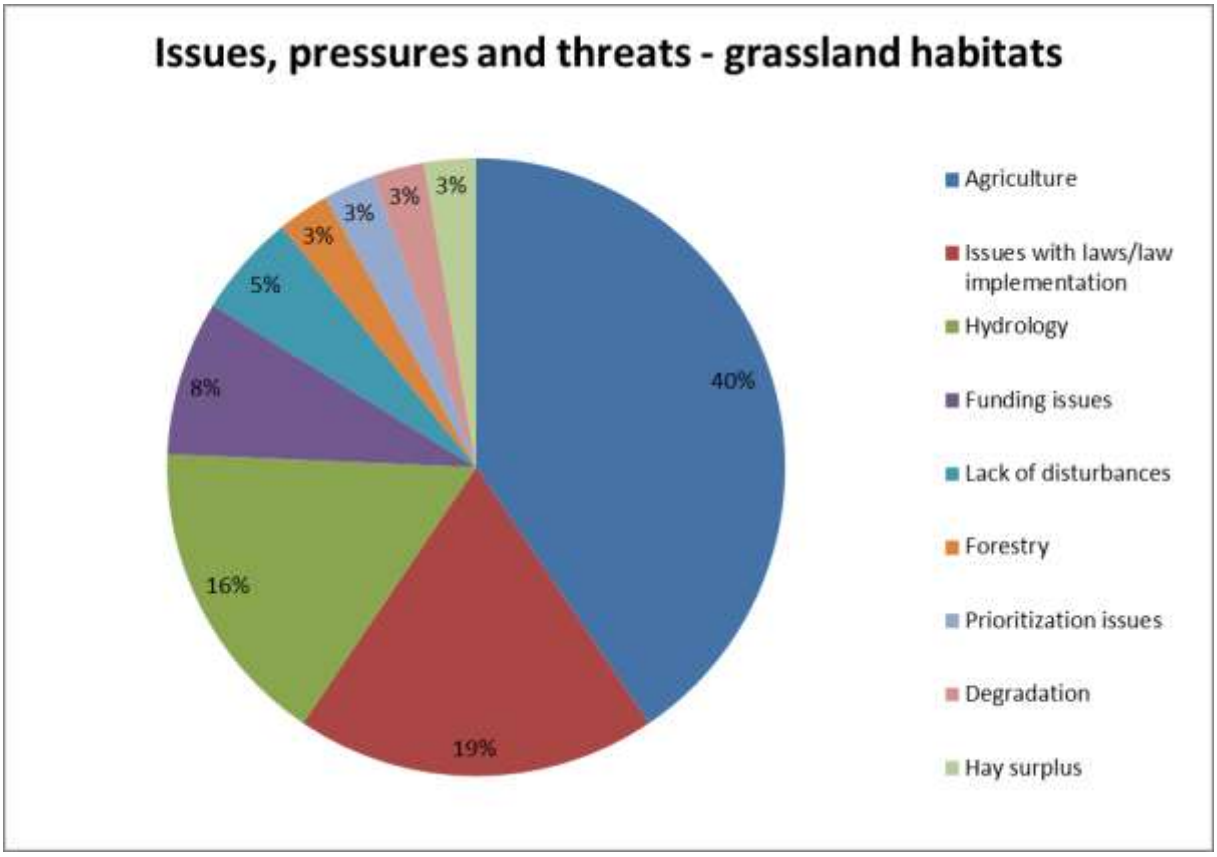


Figure 15 Results from Natura 2000 Biogeographical Process expert consultation: *Issues, pressures and threats - grassland habitats in the Boreal biogeographical region*

For grassland habitats, agriculture is clearly identified as the biggest pressure: intensification, over-fertilisation, loss of small-scale farms and abandonment of (traditionally managed) agricultural land are all trends that have negative impacts for grasslands. There are seen to be inconsistencies in terms of laws and law implementation: specifically, the CAP is mentioned as a source of conflict and a barrier inhibiting achievement of nature conservation objectives. Experts observed that it would be important for agricultural policies to include positive incentives (e.g. higher compensation) for farmers who focus more on the conservation needs of Natura 2000 habitats and species: such an approach would enable more mutually beneficial management approaches for grasslands in particular. Unsustainable drainage practices and hydropower facilities in rivers are also identified as being significant pressures on grassland habitats.

In the Article 17 report, abandonment of agricultural areas with a related lack of grazing and mowing of grassland habitats is a pressure across all grassland habitats. Afforestation is a significant pressure noted in relation to habitats 6210, 6530 and 9070. Other pressures that were reported under Article 17 are: modification of hydrographic functioning, modification of cultivation species, fertilisation, species composition change, diffuse pollution to surface waters (primarily from agricultural and forestry activities), and grassland habitat conversion into arable land, which compounds and increases pressures from habitat fragmentation.

### 4.6.4. Management and conservation measurements and actions

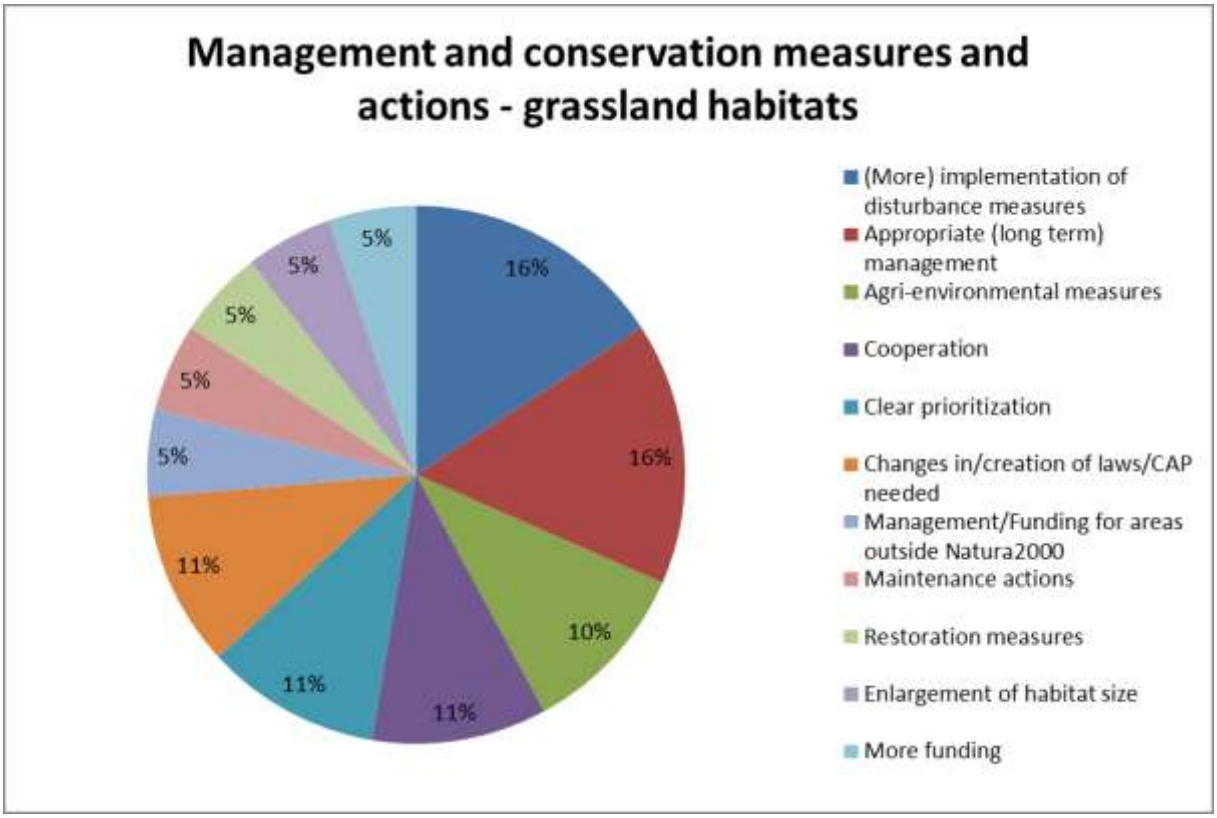


Figure 16 Results from Natura 2000 Biogeographical Process expert consultation: *Management and conservation measures and actions - grassland habitats in the Boreal biogeographical region*

In general terms, experts observed the urgent need to re-think how agri-environmental measures could be applied to benefit grassland habitats – for example, so that farmers can be actively involved, and rewarded, if they take maintenance actions. From Article 17 reports, it is noted that especially habitats 6450, 6510 and 9070 would benefit from new legislative measures. Use of fire and grazing are proposed by the individual experts as suitable and appropriate disturbance measures, which can be applied to improve grassland habitats' condition. (It is perhaps worth highlighting that Article 17 reporting does not mention such disturbance measures specifically.) Appropriate (long-term) grassland management is required for every habitat, according to the Article 17 report: more specifically, habitat 9070 would benefit in particular from improved forest management. Increasing protected area size would be of benefit to the conservation status of habitats 6210, 6530 and 6270 in particular, according to the Article 17 report.

## 4.7. Other habitats

### 4.7.1. Summary description

Applying the Low Hanging Fruit methodology has resulted in the identification of eight other Boreal habitats as Low Hanging Fruits. They do not fall within any of the previous habitat groups (freshwater, wetlands, forests and grasslands) and are thus discussed separately.

It is important to mention that several of these habitats (1210, 1330, 4030, 8210, 8230) are quite rare in the Boreal region and are mainly found in other biogeographical regions. The other three habitats (1220, 1640 and 4060) are almost exclusively found in the Boreal biogeographical region (70 to 100% of European cover).

Table 8. Other Boreal habitats

| **Other habitats** | | | |
|---|---|---|---|
| **Habitats Directive code** | **Habitat name** | **Low Hanging Fruit** | **Priority consideration habitat** |
| 1210 | Annual vegetation of drift lines | Yes | |
| 1220 | Perennial vegetation of stony banks | Yes | |
| 1330 | Atlantic salt meadows (Glauco-Puccinellietalia maritimea) | Yes | |
| 1640 | Boreal Baltic sandy beaches with perennial vegetation | Yes | |
| 4060 | Alpine and Boreal heaths | Yes | |
| 4030 | European dry heaths | Yes | |
| 8210 | Calcareous rocky slopes with chasmophytic vegetation | Yes | |
| 8230 | Siliceous rock with pioneer vegetation of the SedoScleranthion or of the Sedo albi-Veronicion dillenii | Yes | |

### 4.7.2. Factors contributing to a Favourable Conservation Status

Probably due to the habitats being rare and the group of “other habitats” not so big, there was not much feedback received by the experts. For solutions and opportunities, an expert identified that more funding for increasing the habitat area is an opportunity.

### 4.7.3. Issues, pressures and threats

According to the experts, construction and disturbance from building are significant threats to coastal processes in habitats 1210 and 1220. The Article 17 report highlights that the level of grazing is too limited for habitats 1330 and 4030, while 4060 suffers from too much grazing. Habitat 1640 is threatened because of human-induced eutrophication, erosion, overgrowth of open sandy beaches and accumulation of algal masses on sandy shores. Some sandy beaches are also recreation areas,

which means that the habitats suffer from trampling and use of off-road vehicles. Habitat 4030 is threatened because of the abandonment of pastoral systems, reduction or loss of specific habitat features, succession measures and species composition change, forest planting, a lack of managed burning, fragmentation, sand and gravel extraction; insufficient forest management also results in overgrowth. Habitat 1210 is threatened by water pollution, recreational activities and beach cleaning processes (e.g. in Latvia because of the extraction of amber).

### 4.7.4. Management and conservation measures and actions

For almost all Low Hanging Fruits habitats in the category 'Other habitats', Natura 2000 covers only part of the habitats – there is a limit of legal protection and designation, according to the Article 17 reporting. For habitat 4030 in particular, experts commented on the need for adaptation of forest management, plus maintenance of agricultural activities, grazing in particular. According to the experts, habitat 1640 needs management that includes annually recurring measures.

## 5. Additional information – species and best practice cases

### 5.1. Species

In the online consultation, experts mentioned several species and actions related to species management that may benefit from greater cooperation between Boreal Member States – these include opportunities for cooperation in relation to the following:

- Development of an overall 'flyway' protection initiative for migratory birds and bats.
- Greater focus on how to deal with alien species.
- Seals should be seen as one population – the distribution of many species extends across the borders of several Boreal countries. Because of this, the sharing of information about species distribution, ecology and local conservation actions is very important.

### 5.2. LIFE projects and other cases in the Boreal biogeographical region

The EU LIFE Programme supports European actions within environmental, nature conservation and/ or climate objectives. LIFE aims to contribute to 'the implementation, updating and development of EU environmental and climate policy and legislation by co-financing projects with European added value'. More information about LIFE can be found at its website: http://ec.europa.eu/environment/life/ and more projects can be found in the LIFE database: http://ec.europa.eu/environment/life/project/Projects/

There are important opportunities to increase the long-term benefits that accrue from Natura 2000 projects, many of which are funded through LIFE. Such benefits would be enhanced by independent project monitoring, often beyond the lifetime of a specific project. This is considered important so that lessons can be learned from successes as well as failures.

Table 9. LIFE projects that are key examples of management experience in the Boreal region

| Country | Project name | Habitat group | Short description | Link to the project |
|---|---|---|---|---|
| Estonia | Restoration and public access of urban coastal meadow complex in Pärnu Town | Grassland | Restoration of coastal meadows. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4076 |
| Estonia | Restoration of Estonian alvar grasslands | Grassland | Restoration of alvar grasslands. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4985&docType=pdf |
| Estonia | Conservation and | Wetland | Restoration of former peat extraction areas and | http://ec.europa.eu/environment/life/project/Projects/in |

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|---|---|---|---|---|
| | restoration of mire habitats | | restoration of hydrological regime of active raised bogs, bog woodland, and Fennoscandian deciduous swamp woods. | dex.cfm?fuseaction=search.dspPage&n_proj_id=5318&docType=pdf |
| Lithuania | Integrated planning tool to ensure viability of grasslands | Grassland | Prevention of loss of High Nature Value grasslands by providing the Integrating Planning Tool and considering socio-economic factors impacting nature conservation policy. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4900&docType=pdf |
| Latvia | Restoration of raised bog habitats in the Especially Protected Nature Areas of Latvia | Wetland | The project developed good practice in active raised bog habitat restoration in Latvia. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3542 |
| Sweden | Kinnekulle - Kinnekulle plateau mountain – restoration and conservation | Grassland | Excellent project set-up where nature reserves were created to secure the sustainable management of grassland areas on a large scale. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=1956 |
| Sweden | MIA – Lake Mälaren Inner Archipelago Restoration and Management | Forest/ Grassland | The LIFE-MIA project is unique, as no other project in Sweden has carried out large-scale restoration actions on islands. The project worked with both forest and semi-natural habitats. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3333 |
| Sweden | MOTH – Demonstration of an integrated North-European system for monitoring terrestrial habitats | All | The project was excellent in advancing habitat monitoring methods in Sweden (combination of remote sensing and ground inventories); their methodologies could be used by everyone in the Boreal region. | https://www.slu.se/globalassets/ew/org/centrb/moth/moth_final_conference/hagner_moth-background-and-motivation.pdf |
| Sweden | Life to ad(d)mire – Restoring drained and overgrowing | Wetland | The project was a very good example of the linkage between nature and climate. It involved large-scale mire | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3568 |

| | | | | |
|---|---|---|---|---|
| | wetlands | | restoration, also resulting in $CO_2$ capture, etc. | |
| Sweden | Vindel River LIFE – Restoration of tributaries of the Vindel river combined with monitoring and evaluation of ecological responses of species and habitats | Freshwater | The project demonstrated excellent cooperation between practitioners-stakeholders (fishermen, landowners) and scientists (university) in advancing and documenting the river restoration methods. They also demonstrated excellent cost-efficiency, thanks to close engagement with locals. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3567 |
| Sweden | MIRDINEC – Management of the invasive Raccoon Dog (Nyctereutes procyonoides) in the north-European countries | Wetland | A good example of cross-country cooperation (SE, FI, DK) in fighting the invasive species (Raccoon Dog) and excellent involvement of stakeholders (hunters) and volunteers (especially in Finland). Received Best LIFE Project award last year. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3784 |
| Sweden | ReMiBar – Remediation of migratory barriers in Nordic/Fennoscandia watercourses | Freshwater | The County administrative Board of the project is Trafikverket, and they have done a very good job in removing the migratory barriers created by roads (too small culverts, too steep gradients). The project has been very successful in bringing the message to the roads sector all over the EU (and even worldwide). | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4040 |
| Sweden | RECLAIM – Restoring the conservation status for wetland habitats and species intrinsic to long-term management | Freshwater | Excellent project dealing with restoration of freshwater; it targets two lakes and the surrounding areas. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4299 |

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|---|---|---|---|---|
| | practices in Sweden | | | |
| Sweden | LIFE- ELMIAS - Saving wooded Natura 2000 habitats from invasive alien fungi species on the Island of Gotland, Sweden | Forest/ Grassland | The project deals with invasive species, Dutch Elm disease and Ash Dieback. The County administrative Board is Skogsstyrelsen. In this project nature conservation and forest protection needs are the same, thereby demonstrating a win-win situation. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4596 |
| Sweden | LifeTaiga – Reintroduction of burning in Boreal western taiga woodlands | Forest | A project developing suitable methods for controlled burning, as well as training and encouraging stakeholders. The project promotes dialogue and delivers information to landowners, local residents, visitors and the general public on controlled burning. A mutual collaboration with Finland in relation to the management of the target habitat will be developed. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4892 |
| Finland | Boreal Peatland Life – Restoring the Natura 2000 network of Boreal Peatland Ecosystems ' Boreal Peatland Life' | Wetland | Restoration of the habitat quality of 54 Natura 2000 sites in the unique Finnish peatland network covering 211 260 hectares. The project represents a good demonstration of implementation of the Birds and Habitats Directives and the EU Biodiversity Strategy to 2020, especially the target of restoring at least 15% of degraded ecosystems. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3557 |
| Finland | Species-rich LIFE -– Improving the conservation status of species-rich habitats | Forest/ Grassland | Target habitats for restoration and management measures will be made in several semi-natural habitats: coastal meadows, various dry meadow and grassland types (and western taiga and deciduous forest | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4072 |

| | | | | |
|---|---|---|---|---|
| | | | types). Restoration measures are being taken in 63 Natura 2000 sites all over Finland. | |
| Finland | NATNET – Increasing the ecological connections and coherence of the Natura 2000 network in south-west Lapland | Wetland | Selection and establishment of corridor areas between Natura 2000 sites to improve connectivity. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4071 |
| Finland | Light & Fire - LIFE - Light & Fire open the Doors for Biodiversity - LIFE | Forest/ Grassland | Focuses on Natura 2000 habitats whose ecological characteristics are shaped by fire (fire-born habitats) or extreme solar radiation and luminosity (sunlit habitats). | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=4978 |
| Finland | Towards integrated management of freshwater Natura 2000 sites and habitats | Freshwater | A large project focusing on the implementation of the Finnish prioritised action framework (PAF) with regard to freshwater habitats. The project includes all the most important beneficiaries responsible for implementing the PAF (large governmental organisations but also several local NGOs) and is thus a good example of how LIFE can be used to create new holistic management structures for the implementation of nature conservation. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=5437 |
| Lithuania | Securing sustainable farming to ensure conservation of globally threatened bird species in agrarian | Wetland | The main project objective is to ensure the favourable conservation status in Lithuania and Latvia of the globally threatened species - Aquatic Warbler* (*Acrocephalus paludicola*), which breed in wet meadows and open fens | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3786 |

| | | | | |
|---|---|---|---|---|
| | landscape | | dominated by sedge grasses. | |
| Latvia | Management of Fennoscandian wooded meadows (6530*) and two priority beetle species: planning, public participation, innovation | Grassland | The project aims to develop a comprehensive ecological management system and ensure appropriate management for Fennoscandian wooded meadows (6530*) and rare species, dependent on old-grown trees and undisturbed forest habitats. | http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=search.dspPage&n_proj_id=3826 |

In the online consultation, experts mentioned several cases and developments in their own countries: development of zonation software (see http://cbig.it.helsinki.fi/software/zonation/), action plans for specific species or groups of species (and some habitats) with positive results (amphibians for example), conservation action programmes for threatened species (http://www.naturvardsverket.se/Miljoarbete-i-samhallet/Miljoarbete-i-Sverige/Uppdelat-efter-omrade/Naturvard/Artbevarande/Atgardsprogram-for-hotade-arter), and a specially designed agri-environmental measure to restore aquatic warbler habitat as well as to maintain them (http://www.meldine.lt/en).

**Annexes**

**ANNEX 1 Overview of responses Online Expert Consultation**

| *COUNTRY* | *EXPERTS* |
|---|---|
| Estonia | 4 |
| Finland | 6 |
| Latvia | 2 |
| Lithuania | 3 |
| Sweden | 5 |
| **Total** | **20** |

**ANNEX 2 Core purpose and messages of the Natura 2000 Biogeographical Process**

**The contribution of the Natura 2000 Biogeographical Process to the EU 2020 Biodiversity Strategy**

The Natura 2000 Biogeographical Process is a vital means to ensure progress to delivering the EU 2020 Biodiversity Strategy. As a reminder, the headline target is:

> *'Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible, while stepping up the EU contribution to averting global biodiversity loss.'*

At the same time, ways to strengthen implementation of Natura 2000 through the Birds and Habitats Directives are the core subject of Target 1 of the Strategy:

> *'To halt the deterioration in the status of all species and habitats covered by EU nature legislation and achieve a significant and measurable improvement in their status so that, by 2020, compared to current assessments: (i) 100 % more habitat assessments and 50 % more species assessments under the Habitats Directive show an improved conservation status; and (ii) 50 % more species assessments under the Birds Directive show a secure or improved status.'*

Synergies should also be sought with the other five targets of the EU Biodiversity Strategy, which are:

- **Target 2**: By 2020, ecosystems and their services are maintained and enhanced by establishing **green infrastructure** and **restoring** at least 15 % of degraded ecosystems;
- **Target 3 A) Agriculture**: By 2020, maximise areas under agriculture across grasslands, arable land and permanent crops that are covered by biodiversity-related measures under the CAP so as to ensure the conservation of biodiversity and to bring about a measurable improvement[2] in the conservation status of species and habitats that depend on or are affected by agriculture and in the provision of ecosystem services as compared to the EU 2010 Baseline, thus contributing to enhance sustainable management**;**
- **Target 3 B) Forests**: By 2020, Forest Management Plans or equivalent instruments, in line with Sustainable Forest Management (SFM), are in place for all forests that are publicly owned and for forest holdings above a certain size[3] that receive funding under the EU Rural Development Policy so as to bring about a measurable improvement in the conservation status of species and habitats that depend on or are affected by forestry and in the provision of related ecosystem services as compared to the EU 2010 Baseline;
- **Target 4 Fisheries**: Achieve Maximum Sustainable Yield (MSY) by 2015. Achieve a population age and size distribution indicative of a healthy stock, through fisheries management with no significant adverse impacts on other stocks, species and ecosystems, in support of achieving

[2] For both targets, improvement is to be measured against the quantified enhancement targets for the conservation status of species and habitats of EU interest in Target 1 and the restoration of degraded ecosystems under Target 2.

[3] For smaller forest holdings, Member States may provide additional incentives to encourage the adoption of Management Plans or equivalent instruments that are in line with SFM (to be defined by the Member States or regions and communicated in their Rural Development Programmes).

Good Environmental Status by 2020, as required under the Marine Strategy Framework Directive;

- **Target 5**: By 2020, **Invasive Alien Species** and their pathways are identified and prioritised, priority species are controlled or eradicated and pathways are managed to prevent the introduction and establishment of new IAS;
- **Target 6**: By 2020, the EU has stepped up its contribution to **averting global biodiversity loss**.

However, ensuring progress towards implementation of Natura 2000 should also be considered in the wider EU agenda, in particular the following strategic objectives:

- **A more resource-efficient economy**: The EU's ecological footprint is currently double its biological capacity. By conserving and enhancing its natural resource base and using its resources sustainably, the EU can improve the resource efficiency of its economy and reduce its dependence on natural resources from outside Europe;
- **A more climate-resilient, low-carbon economy**: Ecosystem-based approaches to climate change mitigation and adaptation can offer cost-effective alternatives to technological solutions, while delivering multiple benefits beyond biodiversity conservation;
- **A leader in research and innovation**: Progress in many applied sciences depends on the long-term availability and diversity of natural assets. Genetic diversity, for example, is a main source of innovation for the medical and cosmetics industries, while the innovation potential of ecosystem restoration and green infrastructure is largely untapped;
- **New skills, jobs and business opportunities**: Nature-based innovation, and action to restore ecosystems and conserve biodiversity, can create new skills, jobs and business opportunities. The TEEB (The Economics of Ecosystems and Biodiversity) study estimates that global business opportunities from investing in biodiversity could be worth in the region of €1.7 to €5 trillion by 2050.

Therefore, through the Natura 2000 Biogeographical Process, there are vital opportunities available for all stakeholders to contribute to this wider agenda. Joint actions developed in the context of the Process create new scope to generate greater synergies, realise shared benefits and establish new ways to demonstrate the integral value of Natura 2000 for reaching societal goals and conservation objectives.

**Aims and objectives of the Natura 2000 Biogeographical Process**

As a reminder, the primary aims and objectives of the Natura 2000 Biogeographical Process are:

- To ensure significant and practically oriented progress towards the EU 2020 Biodiversity Strategy Targets, in particular Targets 1 and 2;
- To achieve this through improved and strengthened implementation on Natura 2000, in ways that help Member States to fulfil their legal obligations under the Nature Directives;

- To strengthen common understanding of the critical role of the Natura 2000 Network in achieving favourable conservation for habitat types and species subject to protection in Natura 2000[4];
- To identify future priorities and conservation objectives for Natura 2000, based on relevant data from Article 12 and 17 reports, and facilitate the formulation of 'strategic cooperation objectives', which may be applied and implemented at a biogeographical level;
- To establish a practical framework for networking that helps put in place practical management actions designed to maintain or achieve favourable conservation status for those habitats and species that fall within Member States' territories;
- To develop cooperation between Member States, stakeholder organisations, environmental NGOs and specialist networks that will lead to new 'know-how' to support the achievement of favourable conservation status.

The following points highlight key features of the Natura 2000 Biogeographical Process:

- Participation in the Natura 2000 Biogeographical Process is voluntary;
- The Process provides added value means to work collectively towards achieving the legal obligations of the Nature Directives;
- The Process offers a practical framework for networking, sharing information and experience and building knowledge about the most effective ways to reach and maintain favourable status for habitats and species of European Community importance – this includes opportunities to identify and promote the multiple benefits (environmental, social and economic) linked to such actions;
- The Process focuses on practical habitat (and/ or species) management and restoration activities and provides a framework to share best practices, compare approaches, build contacts, exchange information and build new knowledge;
- The Process is supported by follow-up networking events designed to further build practical knowledge and capacity, along with a dedicated Natura 2000 Platform to communicate and share information.

**Developing the strategic orientation of the Natura 2000 Biogeographical Process**

As a dynamic and continuing process, Member States and their representatives are supported by the team of contractors and other actors working for and through the Natura 2000 Biogeographical Process. In 2015 and 2016, a discussion paper was produced which suggested elements for adapting the strategic orientation for the further development of the Natura 2000 Biogeographical Process in the coming years. In consultation with members of the EC's Expert Group on Management of Natura 2000 and reflecting feedback from other EC expert groups, including NADEG, the strategic objectives of the Natura 2000 Biogeographical Process were refined to the following:

[4] There will be a need to examine ways of improving coherence with outcomes of work on assessing favourable conservation status through monitoring and reporting under Article 17 of the Habitats Directive and the results of the Birds Directive Article 12, especially with regard to eventually determining how best to build a common understanding of what needs to be achieved for different habitats and species to reach FCS.

**1. To strengthen and focus the work of the Process in contributing to meeting the EU 2020 Biodiversity objectives, primarily the full implementation of the nature directives (Target 1), i.e. the improvement of conservation status;**

The focus of the Natura 2000 Biogeographical Process is on improving the conservation status of a set of habitats and species that will be defined over the coming months region by region. Defining this set of habitats and species shall make full use of the results of the 2015 State of Nature exercise and reported data. The criteria for selection shall also include identification of those habitats and species where improvements of conservation status may be more straightforward to achieve in a biogeographical region, the so-called 'low hanging fruits' approach. Once the habitats and species are defined, joint strategies and plans ('roadmaps') in working together towards the favourable status shall be the focus of the work (in seminars, workshops, etc.).

**2. To develop, discuss and work on implementation strategies for biogeographical level favourable reference values (FRVs);**

In the frame of the review of the Art.17 reporting process, several Member States had requested further work on FRVs. In a sub-group of the Expert Group on Reporting, this work is now taking place. The question of testing the setting of FRVs on the biogeographical level is part of this work and this aspect, once further developed, may be addressed by the Process, for example through follow-up actions and thematic events.

**3. Strengthening the marine aspect of the process. Should this be left to the Marine Process or should particular issues also be dealt with in the Boreal Process?;**

So far the Process has mainly dealt with terrestrial systems. As the marine network nears completion, at least in coastal areas, work on marine ecosystems in an early stage of site designation and objective setting becomes very important. Marine systems depend even more on collaborative approaches between Member States (e.g. control of fisheries), the challenges of marine conservation are less well understood and in many ways pressures on marine features are less controlled and regulated. All this requires a special focus on marine features in the coming years to make the marine Natura 2000 network a success and sufficient support by Member States to establish the Natura 2000 Biogeographical Process also at sea.

**4. Identifying further initiatives to facilitate and further develop cooperation between Member States, stakeholder organisations, environmental NGOs and specialist networks on the management of Natura 2000 as a coherent ecological network.**

The Process will continue to promote cooperation between Member States, stakeholder organisations, environmental NGOs and specialist networks through the establishment of a practical framework for networking and help putting in place practical management actions designed to maintain or achieve favourable conservation status. At the same time, the Process will encourage active involvement of interested stakeholder groups.

**ANNEX 3 ETC-BD - Supporting elements for the Boreal Natura 2000 review seminar (1st part: Core document)**

This annex updates the 18 previously identified priority consideration Boreal habitat-types using 2013 Article 17 data and the results of applying the Low Hanging Fruit approach. This document is available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

**ANNEX 4 Habitat factsheets – freshwater habitat group (4 factsheets)**

The habitat factsheets for the freshwater habitat group are available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

**ANNEX 5 Habitat factsheets – wetland habitat group (6 factsheets)**

The habitat factsheets for the wetland habitat group are available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

**ANNEX 6 Habitat factsheets – forest habitat group (7 factsheets)**

The habitat factsheets for the forest habitat group are available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

**ANNEX 7 Habitat factsheets – grassland habitat group (8 factsheets)**

The habitat factsheets for the grassland habitat group are available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP

**ANNEX 8 Habitat factsheets – other habitats (8 factsheets)**

The habitat factsheets for the 'other habitats' group are available on the Natura 2000 Communication Platform.

http://ec.europa.eu/environment/nature/natura2000/platform/knowledge_base/142_boreal_region_en.htm#NBP