Nordic Forest Solutions
— let the Nordic Forest Voice be heard —

Roadmap for the future Nordic Forest Cooperation

Adopted by the Nordic Council of Ministers for Fisheries and Aquaculture, Agriculture, Food and Forestry (MR-FJLS) on June 29th 2016
Nordic co-operation is one of the world’s most extensive forms of regional collaboration. Involving Denmark, Finland, Iceland, Norway, Sweden and the Faroe Islands, Greenland and Åland.

Nordic co-operation has firm traditions in politics, the economy and culture. It plays an important role in European and international collaboration and aims at creating a strong Nordic community in a strong Europe.

Nordic co-operation seeks to safeguard Nordic and regional interests and principles in the global community. Common Nordic values help the region solidify its position as one of the world’s most innovative and competitive.

Working group

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Mission and vision

Nordic Forest Solutions is a road-map for future co-operation in the Nordic forest sector. It builds upon the Selfoss Declaration of the Nordic forestry ministers from 2008, and highlights the important challenges and promotes the solutions that forests can provide. The document aims to strengthen the Nordic voice at regional, European and global level, and identifies areas where the Nordic forest sector co-operation can help provide solutions – Nordic Forest Solutions – consolidating and extending collaboration between existing platforms. The document may also serve as a source of inspiration for further work on implementation.

Figure 1. The figure shows important policy arenas identified and how Nordic Forests can provide solutions, contributing to challenges on several levels. A strong Nordic voice raises awareness of the way forests are utilised to face challenges and the reasons behind to find solutions.
Nordic benefit

The Nordic countries enjoy widespread co-operation, based on a common history, culture and values. The healthy balance of similarities and differences promotes regional co-operation. Rapid changes in society, including globalisation, increased consumption and production, and climate change, present both challenges and opportunities. Challenges can be tackled and opportunities met with joint Nordic cross-sector initiatives to provide a good life in a sustainable Nordic region and increase Nordic benefit.

Challenges deemed important for Nordic co-operation include the need to improve the competitiveness of the Nordic economy, raise awareness about climate change, and provide policy input to relevant issues at European level. In essence, this is the statement of the Nordic Prime Ministers from the 2014 Mývatn meeting. Increased collaboration can strengthen the voice of the forest sector and contribute to Nordic forest solutions within and beyond the region.

Among the Nordic countries, a strong forest voice is commonly understood as a way to influence international and regional policy development. International and regional policy drivers, sometimes with conflicting objectives, may have a great effect on the Nordic forest sector. A fragmented and complex international policy environment makes it difficult to unilaterally identify various drivers, and may call for agile and coordinated policy responses. A strong Nordic voice may raise awareness of the way forests are utilised in the Nordic countries.
It is therefore important to promote the role of forests in attaining economic, ecological and social sustainability. Rapidly increasing demand for biomass will affect market development and associated land use. Finding a balance between biomass production and use, increase and maintenance of carbon stocks, and protection of biodiversity will be important.

Bioeconomy is the next wave of economy, including production, processing, consumption and recycling of renewable natural resources, and services based on them, as well as invention of new value chains. The bioeconomy will promote systemic change from non-renewable resources to renewables. It uses clean technologies, reduces dependency on fossil fuels, maintains ecosystem services, promotes economic development, and creates new jobs. The bioeconomy is also a key tool in mitigating climate change. A sustainable forest sector could, and should, play a central role in the transition to a bioeconomy.

Many of the main challenges we face in the Nordic countries are similar to those that lie behind, for example, the United Nations Sustainable Development Goals, and innovative bio-based solutions are needed. The transition from fossil fuels to a bioeconomy, satisfying the increasing demand for wood and the need for human mitigation of and adaption to climate change, can serve as examples.
The forest sector plays a major role in meeting these and other challenges by:

- replacing non-renewable resources with renewable forest-based materials
- promoting economic development and creating new jobs in a bioeconomy
- providing general ecosystem services and mechanisms addressing climate change
- providing an arena for developing policies to combat social exclusion and stimulate equality

The multifaceted challenges require innovative solutions. By working together on common challenges and solutions, the Nordic countries can use existing platforms within the Nordic Council of Ministers to develop strategic objectives and achieve good synergies and resource utilisation. The Nordic Council of Ministers should promote and support new and ongoing forest activities in the Nordic countries. This should include greater coordination between the countries, cross-disciplinary connections within the Nordic Council of Ministers, and cooperation between the Nordic Council of Ministers and other national and international bodies. Collaboration, research, education and information are important tools in meeting these challenges; here the Nordic institutions have a central role to play.
Important challenges and the role of the Nordic forest sector

Three important policy areas have been identified where the Nordic countries should aim to strengthen collaboration:

I. Increased use of sustainably produced wood – drive towards bioeconomy
II. Reinforced social values
III. Increased use and conservation of biodiversity

A matrix (Table 1) has been developed to explain how the different policy areas can provide sustainable solutions to the need for various ecosystem services. Underlying the solutions for each policy area, one cell, Nordic Forest Solutions, highlights areas where the Nordic countries are strong and could extend their collaboration and strengthen the Nordic voice internationally.

Nordic Forest Solutions

The forestry ministers of the Nordic countries agree that forests and the ecosystem services they provide are an important part of solutions to multiple global challenges, including the drive towards bioeconomy, increasing social benefits, and the use and conservation of biodiversity. Nordic Forest Solutions show the role of ecosystem services in the various policy areas, at both national and global level, by using the existing infrastructure and the Nordic distinction.

Timber and wood-related products: Effective biomass production in healthy and productive forests and the value of timber and wood-related products form the basis for other services and forest use. The Nordic countries have a strong tradition of research re-
## Nordic Forest Solutions

<table>
<thead>
<tr>
<th>Ecosystem services</th>
<th>Policy Area I</th>
<th>Policy Area II</th>
<th>Policy Area III</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Timber and wood related products</strong></td>
<td>Effective biomass production in healthy and productive forests; Increase the use of sustainable produced wood in buildings and constructions; Stimulate innovative products from wood biomass</td>
<td>Stimulate jobs and spin-offs in rural areas</td>
<td>Forestry with high biodiversity; Knowledge based management decision</td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td>Minimise the use of fossil fuel; Increase the use of sustainably produced wood-based energy</td>
<td>Better access to renewable energy; Local sourcing and production</td>
<td>Ensure balance between biomass removal and biodiversity conservation; Grow productive species without threat to biodiversity</td>
</tr>
<tr>
<td><strong>Biodiversity</strong></td>
<td>Bioprospecting (discover and commercialise new products based on biological resources); Genetic diversity</td>
<td>Education and communication on the importance of biodiversity in forests</td>
<td>Safe-guard biodiversity at all levels (genetic, local (α), diversity of habitats (β) and landscape (γ))</td>
</tr>
<tr>
<td><strong>Climate change mitigation and adaptation</strong></td>
<td>Active forest management, develop forest resource and harvest wood products</td>
<td>Underline the potential and role of forests</td>
<td>Use biodiversity to ensure adaptation</td>
</tr>
<tr>
<td><strong>Recreation/human health</strong></td>
<td>Contribute to healthier environment</td>
<td>Healthy forest within accessible distance; Green care; Urban forestry; Outdoor learning</td>
<td>Health products and bioactive substances; Landscape biodiversity</td>
</tr>
<tr>
<td><strong>Institutional Capacity</strong></td>
<td>Research and development; Innovation; Forest information; Forest data; Social capital; Forest law enforcement and governance; Dialogue processes</td>
<td>Cooperation models; Gender equality; Dialogue processes</td>
<td>Research and development; Innovation; Forest data; Forest information; Dialogue processes</td>
</tr>
</tbody>
</table>

The matrix shows examples relevant to the Nordic countries. It is not intended to be a complete review of challenges or solutions in the future Nordic forest co-operation.
ating to wood and wood products, which provides a robust foundation for the long-term development of innovative forest products and materials, for example timber as construction material. This common Nordic ground should serve as a base for further research and innovation, with the goal of increasing the value of forests, forest products and services, as well as promoting forest industry and the growing bioeconomy.

In the Nordic countries, national forest programmes and strategies have been, or are in the process of being, developed to stimulate the entire forest value chains. Collaboration is a good way to share existing knowledge and good practices, and fostering a creative environment for innovation. It is important to develop further knowledge-based management decisions, with a balanced approach to production and protection. This constant need for development and adaption of sustainable forest management methods

Table 1 (left). A matrix showing examples of challenges and contribution within the policy area goals where the Nordic countries should aim at strengthening their cooperation and provide “Nordic Forest Solutions”. In rows examples of different forest services are listed, linked to the relevant policy areas, indicating how different services of the forests can participate in fulfilling the Policy Area Goals. The matrix also shows the other way around, to reach certain demands for ecosystem services, there is a need to work on common Policy Area Goals.
requires a sustainable forest workforce, which means attracting young people to secure a future supply of competences in the forest sector.

**Energy:** The energy issue has put forest utilisation on the political agenda, demanding cross-disciplinary approaches and cooperation. All the Nordic countries are supporting national initiatives, which can jointly secure research on the forest’s potential for sustainable biomass production. The Nordic forest sector, with its rich forest resources, strong organisational structure and commitment to promote the bioeconomy, should play a significant role in minimising the use of fossil fuels.

Solutions for creating horizontal and vertical integration in the handling of forest fuel in forestry and supply systems are important. In the Nordic countries, resource efficiency creates a unique platform for collaboration and further exploration, such as increasing access to renewable energy and growing productive species without jeopardising biodiversity. It is important to analyse the driving forces behind various policy decisions and market developments. While the cascading principle is good, it does not work as a strict rule and, rather than viewing the wood industry and wood energy as alternative choices, the Nordic countries should view them as complementing sectors, supported by active forest management.

**Biodiversity:** Due to large variations along climatic and topographic gradients, a wide range of coniferous and deciduous forests can be found in the Nordic region.
The Nordic forests host great biodiversity; knowledge-based management of forest ecosystems and protection of valuable forest habitats are vital in the work to attain international biodiversity goals. When planning and planting new forests, genetically diverse and well-adapted material must be used, suitable for the purpose of the forests (for example wood production); a simultaneous objective must be to conserve and strengthen the existing biodiversity, thereby ensuring a combination of protected and multipurpose forests.

The challenge is to manage and protect forests using the best available knowledge and techniques, and to use adaptive management in a wide context to reach production and environmental goals. The gradient of forests within the Nordic countries gives a unique opportunity to study and compare biodiversity at different scales, i.e. local (α), habitat (β) and landscape (γ) biodiversity.

*Climate change mitigation and adaptation*: There is a great need to advocate and strengthen the Nordic voice for active and climate-smart forest management and use of biomass for mitigation and adaptation. The demand for forest biomass is expected to increase, but global climate changes will affect the forest ecosystems in rather unpredictable ways. Sustainable forest management methods must be developed, not only to increase biomass production or to preserve, and in some cases restore, biological diversity, but also to adapt the forest ecosystem to a changing environment.
Plant material well-adapted to various climatic conditions is important. Studies should be conducted on mitigation, and further application of existing results encouraged. In addition to carbon sequestration and mitigating climate change, afforestation can be a vital instrument in alleviating floods, drought and soil erosion. The Nordic countries should work together and share information and experience so that the role of forests is highlighted in policy making and climate change action plans.

Recreation and human health: The Nordic countries have a solid base and experience to tap into the positive social dimensions of forests and stimulate jobs and local profits in rural areas, expand urban forestry, and increase access to renewable energy. However, the increasing demand for forest products, goods and services underlines the need to balance interests.

The Nordic forest tradition of public right to access forests harmonises well with recent research that demonstrates the significance of forests for human health and well-being. There are also new opportunities for people to benefit from forests and woodland and to strengthen resilience of societies, e.g. by helping immigrants and marginalised groups to adjust to society, increasing gender equality, and using the forests as platform for teaching in various subjects. Most Nordic citizens live in urban areas, so the value of green infrastructure associated with urban forestry should not be underestimated. Income from ecotourism, fishing, hunting and other recreational activities may be important in local economies.
Institutional capacity (and clear ownership rights): The Nordic countries have a high institutional capacity, providing multiple possibilities in further developing the use of trees and forests as part of solutions to the multidimensional challenges faced by the global community. This includes a strong tradition of research relating to wood and wood products and other forest ecosystem services. Furthermore, all the Nordic countries support national efforts that can jointly secure research into the forest’s potential for sustainable biomass production.

The social model integrated in Nordic society provides potential to include gender equality and integration of new citizens, and thereby generates possibilities to engage more people in forests and in different participatory processes, such as national forest programmes. The Nordic countries also have a high level of digitalised information, data and maps, available both to the forest owners and the public. Forestry legislation sets minimum standards for management of forests. Supervision and communication of legal provisions in forestry, together with dialogue and digital services are important instruments used by the responsible forest authority when implementing the forest policy. Clear ownership rights, forest law and social trust allows ‘freedom under responsibility’, i.e. freedom for the forest owners to utilise the forest in a sustainable way and for the public to use the forest for other purposes.

The aim for the Nordic countries should be to collaborate as much as possible, since it would enable them to exert greater influence on policy making in the EU and at global level.
Platforms for co-operation

Nordic Council of Ministers
  The Committee of Senior Officials for Forestry (EK-FJLS Forestry)
  Nordic Forest Research (SNS)
  NordGen Forest
  Bioeconomy initiatives (NordBio, NordForsk, EUSBSR)
  Nordic Energy Research

EU Strategy for the Baltic Sea Region
EFINORD

Barents Euro-Artic Council Working Groups (BEAC WG)

Supporting Material

UN Sustainable Developmental Goals (https://sustainabledevelopment.un.org/sdgs)

Nidaros Declaration

NordBio, Programme for the Icelandic Presidency of the Nordic Council of Ministers 2014
(http://nordbio.org/)

EUSBSR Action Plan
(http://www.balticsea-region-strategy.eu/)

Selfoss Declaration
UN Sustainable Forest Management resolution

Convention of Biological Diversity
(https://www.cbd.int/)

Statement from the Nordic Prime Ministers’ meeting in Mývatn, Iceland, 26 May 2014.
(http://www.norden.org/sv/aktuellt/nyheter/statsministrarnas-toppmoete-norden-kan-paaverka-mer)

Forest Europe
(http://www.foresteurope.org/)

EU Forest Strategy
(http://ec.europa.eu/agriculture/forest/index_en.htm)

The Nordic Sustainable Development Strategy

The Nordic Welfare Model
(http://www.nordicwelfare.org/PageFiles/7117/Nordic_Welfare_Model_Web.pdf)

Nordic Energy Research Strategy 2015-2018