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Nordic Council of Ministers

NordicEnvironment

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Nordic regional co-operation

Case: biodiversity

Nordic Environment is a newsletter published by the environmental sector within the Nordic Council of Ministers, the official body of co-operation between the Nordic governments. The newsletter provides an insight into the extensive environmental co-operation in the Nordic countries.

“People in the Nordic countries greatly value our rich natural environment, and outdoor activities are an important part of our lifestyle.”

The Nordic Region aims to be at the forefront of environmental progress.

This edition of the newsletter presents a selection of Nordic initiatives and good examples of co-operation on biodiversity, which we hope will provide inspiration for work on biodiversity at national, regional and international level.

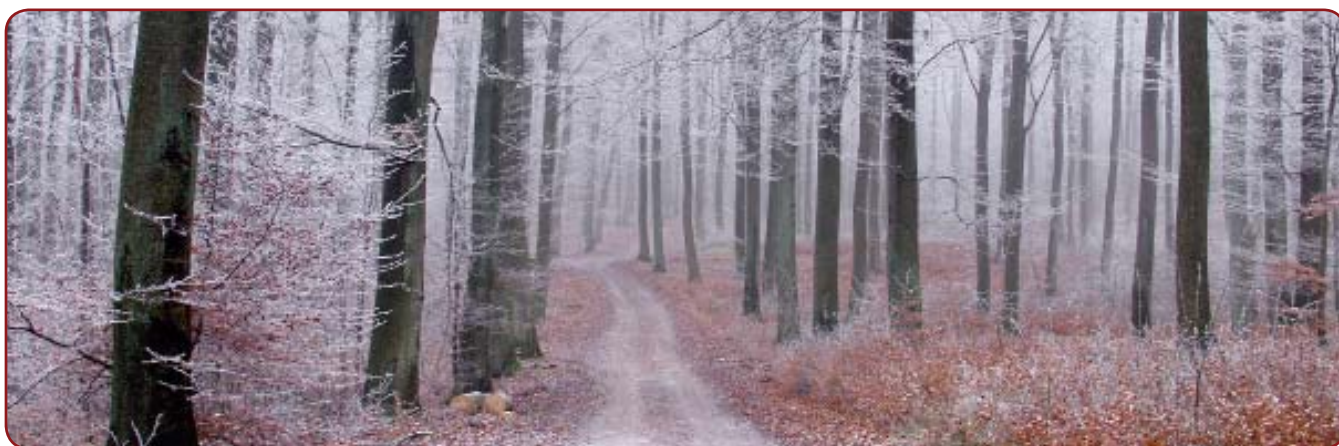
..... The Nordic countries have a long record of active participation in international co-operation on the environment. Working closely together, they have made useful contributions, proposed positive initiatives and presented tried-and-tested solutions. These efforts will continue and be further developed.

The fact that biodiversity is a priority is almost self-evident, and not just because loss of biodiversity is one of the most serious threats to sustainable development. People in the Nordic countries also greatly value our rich natural environment, and out-

door activities are an important part of our lifestyle.

The Nordic countries are all signatories to the Convention on Biological Diversity and support the international targets for halting the loss of biodiversity by 2010. However, as the International Year of Biodiversity draws to a close, we must accept that these targets have not been met, neither globally nor within the Nordic Region. We need to set new targets and develop more effective means of monitoring progress towards them.

www.norden.org/cop10



Halting the loss of biodiversity by 2010 – benefits from regional co-operation

“We need a long-term global vision and short-term measurable and action-oriented targets.”

Nordic visions beyond 2010 – what next?

– We need a long-term global vision and short-term measurable and action-oriented targets. Moreover, more action is needed to implement the targets nationally, regionally and globally. The post-2010 targets must be ambitious and practical. They should underscore that we must halt the loss of biodiversity and secure the delivery of ecosystem services for poverty eradication and sustainable development.

So said State Secretary Heidi Sørensen of the Norwegian Ministry of the Environment in her opening address to the Nordic Council of Ministers’ conference on biological diversity in Norway in October 2009. By then, it was already clear that the Nordic countries – much like other regions – would fail to meet the targets for halting the loss of biodiversity by 2010. The purpose of the conference was to look beyond 2010 – what new targets were needed, and how could the efforts to meet them be made more effective?

The conclusions and recommendations drawn up at the conference not only covered

“There is a need for improved and more authoritative scientific knowledge on the status and trends in biodiversity.”

ongoing efforts in the Nordic Region, but also Nordic efforts at global level. The Nordic countries must be proactive and provide good examples of how regional co-operation can help stem the loss of biodiversity, e.g. by jointly supporting the follow-up study The Economics of Ecosystems and Biodiversity (TEEB, www.teebweb.org) and by strengthening the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES).

The conference concluded that a new, ambitious global objective is needed, one that underlines the need for properly functioning ecosystems as a prerequisite for human well-being. In parallel with measures to address climate change, stemming the loss of biodiversity must be adopted as a policy goal at the highest political level, with continuous monitoring across all sectors.

The target must be described in a powerful message communicating the consequences of the loss of biodiversity beyond the environmental constituency to ordinary people and to other sectors and stakeholders in society. There is a need for improved and more authoritative scientific knowledge on the status and trends in biodiversity.

In relation to ongoing Nordic co-operation, the conference suggested that the Nordic countries should develop a strategy, “Biodiversity towards 2020”, as a vehicle for joint international action, action within Europe and at national level. The importance of local actions should be emphasised in this strategy.

Further information about the conference recommendations:
www.dirn.no/symposium2010

Local participation – a Nordic success story

Local efforts are needed to halt the loss of biodiversity. As the bodies responsible for planning and land use, local councils play a key role. They also serve as a natural platform for engaging the public.

In order to highlight their importance for biodiversity, a Nordic network of local councils was established in 2006. It consists of 14 councils across the Nordic countries, all of which have committed themselves to running tangible projects.

Hammerfest has built artificial reefs in the sea to restore damaged marine environments and create better conditions for the growth of seaweed and fish fry.

Stjørdal is protecting coastal meadows and preserving hay fields.

Akureyri is combating invasive plant species on the island of Hrísey and sowing seeds to restore the original heathland flora.

Örebro has transformed a former landfill and a former port into a nature reserve and a lakeland park rich in bird life.

Trondheim has restored streams close to the city and improved the water quality.

Porvoo has created a national urban park that offers both diverse natural habitats and valuable cultural environments.

Holstebro has established 55 ponds as habitats for the great crested newt, moor frogs, common spadefoot toad and natterjack toad.

Kolding is improving the environment and water quality in a lake and a watercourse.

Herning is drawing up an environmental policy to safeguard natural assets and create large, continuous nature areas. An action plan for salmon in the river Skjern is also underway.

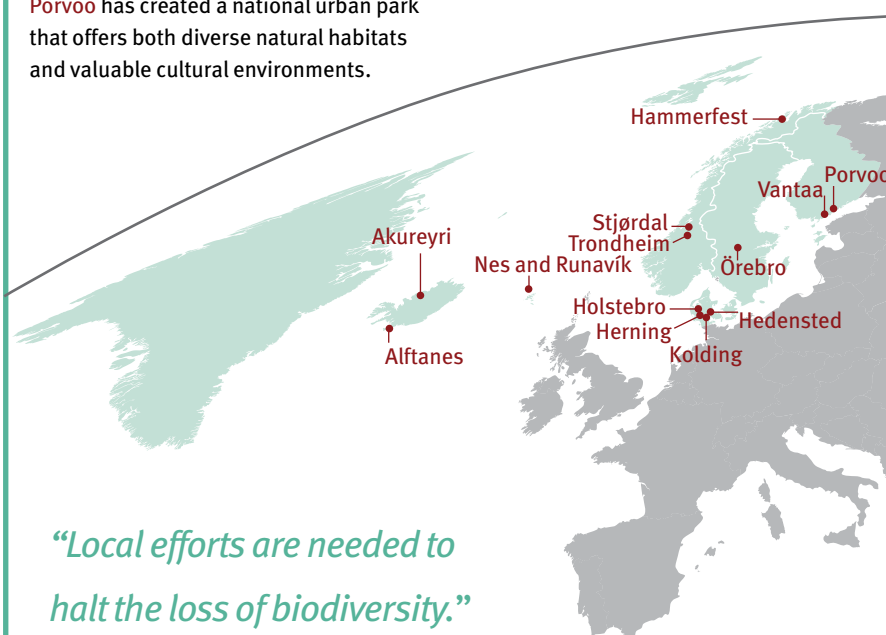
Nes and Runavík in the Faroe Islands are taking steps to protect the heathland and rich bird life on and around Lake Toftavatn from expanding settlements and traffic.

Hedensted is regenerating a wetland area and investing in eco-certified forestry.

Vantaa is protecting nature conservation areas, which together make up 6% of the total area covered by the local authority.

Alftanes is restoring wetlands, which are of major importance to bird life.

Further information:
www.environment.fi/localcontributions



“Local efforts are needed to halt the loss of biodiversity.”

Spreading the biodiversity message

Although the target of halting biodiversity loss by 2010 was not met, the issue has attracted increased attention and publicity. Greater awareness of the problem and of the importance of biodiversity will improve the chances of reversing the negative trend in the future.

The project “Nordic Nature: Trends towards 2010” is part of the Nordic Council of Ministers’ efforts to spread knowledge of biodiversity, the

threats it faces and, not least, examples of best practice that point the way towards solutions.

A range of fact sheets have emerged from the project. They describe successful measures and initiatives, and provide in-depth analysis of the main threats faced by biodiversity. The fact sheets are published online. Newsletters, press releases and newspaper articles have also been produced. The fact boxes below present glimpses of the content from the project.

Further information:
www.environment.fi/nordicnature



Nordic grasslands: Species at risk

Nordic meadows and pastures, the product of hundreds of years of grazing or mowing, are unique in their biodiversity. Habitat changes caused by land use changes are, however, putting this rich biodiversity at risk. The old hay meadows and pastures are being ploughed up for crops, planted with trees or left to grow wild. In Finland and Sweden, only fragments remain of the habitats that existed 150 years ago. Finland previously had 1.6 million hectares of meadow, but now only a few thousand hectares are left. Norway boasts Northern Europe's most diverse and best-preserved cultural landscape, but farming was discontinued on 90% of its grassland during the 20th century. The remaining open grassland of Denmark is protected by conservation legislation, but its biodiversity will remain at risk threatened as long as it is not maintained in the traditional manner.

Successful management behind the return of the herring

The Norwegian spring-spawning herring was once the biggest fish stock in the world. This was the case up until the 1950s, when it was almost wiped out by overfishing. Despite the rapid decline in stocks, fishing was not banned, which delayed recovery. Catch quotas were introduced in the 1980s, and a particularly productive spawning season in 1983 represented the turning point in the species' fortunes.

Iceland's summer-spawning stocks have also recovered. Stocks have been fished at sustainable levels since 1975 and are now larger than ever.

Herring stocks collapsed in the North Sea in the 1970s, leading to a four-year ban on fishing. Once the herring had recovered, catches returned to unsustainable levels in the 1990s, and the stocks declined once more. Quotas were introduced in 1996 and the affected countries agreed to work together to produce guidelines for the protection of fish stocks.

A greeting from the Minister of the Environment

In January 2007, the Danish Minister of the Environment sent a New Year card to the director of the local council in Odder. The front of the card featured the early purple orchid, which is threatened with extinction, while the message inside encouraged the council to take good care of the protected species. That same year, the council rescued a stock of the rare flower by stopping the planned disposal of dredged material on a site where the plant grew.

As part of a reform programme that disbanded regional authorities, responsibility for endangered plants and animals passed to local councils in Denmark in 2007. The minister's postcard was a way of reminding councils of their new responsibilities and generating local interest. Each card was tailored to its location: each council received a picture of a local endangered species, along with a reminder of the International Year of Biodiversity 2010 and the commitments it entailed.

Norway and Sweden have also run postcard campaigns, and a similar initiative is planned in Finland.

Joint effort to save seabirds

- *Fishing for species that provide important sources of food for seabirds needs to be limited.*
- *Fishing practices must be developed that prevent seabirds being caught accidentally.*

These are two of the recommendations from the draft action plan, endorsed by the Nordic Council of Ministers, to save seabirds in the North-East Atlantic.

The initiative for the action plan came from the environment ministers, whose attention was drawn to the problem in 2006 by a joint letter from a number of environmental organisations in the Region. Some years earlier, it had already been noted that a large proportion of the seabirds in the North-East Atlantic were not breeding successfully. Many species, including the black-legged kittiwake, Arctic tern, Brünnich's guillemot and Arctic skua, were declining in almost every country. However, the numbers of a few species, particularly the northern gannet and the great skua, were on the rise.

Three main threats to the Nordic Region's seabird populations have been identified: oil spills; competition from the fishing industry; and climate change. Lack of food is undoubtedly a significant contributory factor. This is partly the result of direct competition from fisheries, but it can also be attributed to the impact of climate change on the food supplies of the species concerned, and the consequent reduction in fish stocks. Another serious threat is posed by accidental catches of seabirds by trawlers.

The action plan lists 57 priority measures deemed necessary to stop the decline of seabird populations. Many of them relate to fishing, oil spills and climate change, but there are also proposals for measures for better protection of breeding grounds, reducing egg theft and combating the threats posed by invasive species.

Nordic contributions to the biodiversity field

Exploring synergies between biodiversity-related international agreements

Co-ordinating international work on biodiversity under the auspices of the most important international conventions would reduce duplication of effort and free up administrative resources for use in the practical implementation of their provisions, a Nordic conference in Finland in April 2010 concluded.

Of the approximately 500 international environmental agreements, approximately 150 relate to biodiversity. Some have conflicting aims, and the rapid pace of development has also led to duplication, overly complicated rules and norms, and a congested schedule of international meetings. All of this has made it difficult to implement agreements effectively and consistently at national level, particularly in developing countries.

The Nordic conference identified six international conventions that would make a relatively coherent cluster:

- Convention on Biological Diversity (CBD)
- Convention on Migratory Species (CMS)
- Convention on International Trade in Endangered Species (CITES)
- World Heritage Convention (WHC)
- International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA)

The conference stated that responsibility for improving co-ordination between the different processes lies with the national governments. A positive contribution from the convention secretariats is necessary if the situation is to improve.

The conference stressed that co-ordination must begin at national level. Governments need to co-ordinate their national activities and develop unanimous, consistent positions in the negotiations pertaining to the various conventions.

Further information: www.biodivcluster.fi

“Of the approximately 500 international environmental agreements, approximately 150 relate to biodiversity.”



Supporting the establishment of the Intergovernmental Science-policy Panel on Biodiversity and Ecosystem Services (IPBES)

In early June 2010, the governments of the world agreed to establish the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services (IPBES). In many respects, the IPBES is envisaged as a counterpart to the UN's climate-change panel (IPCC). The Nordic countries have long supported this initiative.

In the closing address to the meeting in South Korea, the Norwegian representative said:

– Within the Nordic Region we have a long tradition of working together in the area of

biodiversity and ecosystem services. Together we represent a pool of expertise and experience that IPBES can draw upon in various ways once established. We would like to give an effective support for the Intergovernmental Science-policy Platform on Biodiversity and Ecosystem Services from the start.

Like the IPCC, the purpose of the IPBES is to strengthen the links between science and international work within the framework of the Convention on Biological Diversity. The UN climate change panel compiles and evaluates the latest research by hundreds of leading scientists, and its reports form the basis for international climate-change negotiations. The IPCC has exerted considerable influence over public awareness of climate-change issues, as debated and disseminated through the media.

A similar initiative, the UN Millennium Ecosystem Assessment (MA), was launched by the UN Secretary General Kofi Annan in 2005. Based on a comprehensive review of existing scientific knowledge, the report provided an overall assessment of the Earth's ecosystems that support and constitute the basis for human activity. However, the MA was a temporary initiative, and it was not linked to international negotiations in the same way as the IPCC.

A Nordic project studied both of these initiatives and tried to identify the factors that made them successful. The project also resulted in a study of how existing knowledge structures, e.g. the International Union for Conservation of Nature (IUCN) and the World Resources Institute (WRI) could be co-ordinated with and support a biodiversity panel.

Payment for ecosystem services in practice – examples from the north

Instead of equipping its wastewater-treatment plant with a nitrogen-removal capability, the local council in Lysekil, on the west coast of Sweden, entered into an agreement with a local mussel farmer. The farmer is paid per tonne of nitrogen absorbed by the harvested mussels. In other words, the mussels provide the public sector with an ecosystem service.

Payment for ecosystem services is a relatively new and socially beneficial way of managing natural resources, and is already in use in the Nordic Region and elsewhere. The Nordic Council of Ministers' report "Payment for and Management of Ecosystem Services" presents a number of examples and concludes that the method has great potential.

Put simply, ecosystem services consist of all of the ways in which society benefits from nature. Timber from the forest and food from agriculture are two obvious examples. An ecosystem's ability to cleanse or neutralise emissions is another. What nature provides by way of inspiration or opportunities for recreation can also be considered an ecosystem service.

In the Lysekil example, the ecosystem service in question is wastewater treatment. The local council estimates that the agreement with the mussel farmer saves approx. €100,000 p.a. compared to the technical alternatives.

Denmark has also paid for ecosystem services to reduce nitrogen emissions in its coastal waters. Landowners are compensated for establishing wetlands that bind nitrogen and reduce leaching from agricultural land. In the period 2005–2009, approximately 2,500 hectares of

new wetland were established on former agricultural land, reducing nitrogen leaching by more than 280 tonnes p.a.

A third example is the Finnish METSO Programme, which aims to conserve biodiversity in the forest landscape. Based on agreements between the state and owners of forest land, the programme invites landowners to submit tenders, which are assessed on the basis of their ability to deliver the desired ecosystem service at a competitive price. The tenders are also benchmarked against a number of biological criteria designed to ensure that the most valuable land is protected. The programme runs from 2008–2016 and Finland is investing €180 million in the programme until 2012.

Further information: www.norden.org/en/publications/publications/2009-571

“What nature provides by way of inspiration or opportunities for recreation can also be considered an ecosystem service.”



“Giant hogweed. North American comb jelly. Spanish slug. Three species brought to the Nordic Region by humans, and now spreading rapidly in the wild. ”

Information – A weapon against invasive species

Giant hogweed. North American comb jelly. Spanish slug. Three species brought to the Nordic Region by humans, and now spreading rapidly in the wild. Like other invasive alien species, they pose a threat to native biodiversity and may trigger major economic losses.

Invasive species are often spread by human activity, the underlying cause of which is often lack of knowledge about their impact. Information is therefore an important tool in combating invasive species. The NOBANIS database is an example of successful knowledge-sharing initiative in this area.

The International Union for Conservation of Nature (IUCN) regards invasive species as one of the greatest threats to global biodiversity. Indigenous species can be eradicated or forced into retreat, and their genomes can be altered. Over time, this may lead to the homogenisation of ecosystems and a reduction in the level of genetic variation within species.

The UN Convention on Biological Diversity (CBD) requires signatory states to prevent the introduction of invasive species and to control or eradicate those that threaten ecosystems, habitats or existing species. The NOBANIS database could serve as the foundation for an early warning system. Initially set up as a Nordic–Baltic project in 2004,

most of the countries in Northern and Central Europe are now involved. The database, which is maintained and updated regularly by member countries, contains information on the spread of invasive species, potential habitats, and ecological and economic damage. It also contains information on species that are currently not invasive, but that are considered likely to become so.

The Nordic Council of Ministers is also running a project to develop an early warning system for invasive species.

Further information: www.nobanis.org

Future challenges – biodiversity and climate change

Global warming is changing Nordic nature

Arctic fox numbers have declined dramatically in Norway, Finland and Sweden over the past century – there are now only 50–120 individuals left. One explanation for the decline is that a warmer climate has allowed the red fox to spread northward and compete with its Arctic counterpart.

The Pacific oyster is another alien species that has invaded Nordic waters in recent years and is spreading. It is able to survive our winters, probably due to climate change, and is reproducing successfully.

The Arctic fox and Pacific oyster serve as two indicators of how a warmer climate may affect biodiversity. The Nordic Council of Ministers' report “Signs of Climate Change in Nordic Nature” lists a further 12 indicators. A number of criteria were used to select the indicators. For example, they were to be representative of a significant part of the Nordic Region and more sensitive to climate change than their surrounding environment. They also had to be quantifiable by accepted scientific methods.

The Nordic Council of Ministers' Environmental Action Plan stresses the need to develop monitoring methods to track the impact of climate change on biodiversity.

Further information: www.norden.org/en/publications/publications/2009-551

Biodiversity vs. biofuels – a matter of methods

Replacing fossil fuels with biofuels is an important element in the Nordic countries' strategies for coping with climate change. The potential is great, but the process of growing and harvesting biofuels impacts upon biodiversity, landscapes and opportunities for outdoor recreation. The Nordic Council of Ministers' report “Increased Biomass Harvesting for Bioenergy” analyses the effects of various forms of second-generation biofuel harvesting.



“... a warmer climate has allowed the red fox to spread northward and compete with its Arctic counterpart. ”



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Nordic Council of Ministers

Nordic Council of Ministers is an intergovernmental organization focusing on co-operation between the Nordic countries, involving Denmark, Finland, Iceland, Norway and Sweden as well as the three autonomous areas, the Faroe Islands, Greenland and the Åland Islands. The political co-operation between the governments is built on common values and a willingness to achieve results that contribute to a dynamic development and increase Nordic competencies and competitiveness.

Nordic environmental co-operation

The Nordic Environmental Action Plan 2009–2012 forms the framework for environmental co-operation both within the Region and in relation to the adjacent areas, the Arctic, the EU and other international forums. Priorities include the climate and the air, marine and coastal zones, biological diversity and sustainable consumption and production.

The objective is to consolidate the position of the Nordic Region as a world leader on the environment. Particular attention is paid to international issues where partnership allows the Nordic countries to exert greater influence and generate the greatest possible Nordic synergy.

The Nordic Working Group on Terrestrial Ecosystems aims to implement the Action Plan by supporting projects on biodiversity, landscape, cultural environment and outdoor life. Contact: Jannica Pitkanen-Brunnsberg, jannica.pitkanen-brunnsberg@metsa.fi

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Biofuels already make up an important part of energy supplies in Norway, Finland and Sweden. In Sweden, they account for about 1/3 of energy production, in Finland for approximately 1/4¹. About 90% of biofuels come from forestry.

Logging residue is increasingly used as bio-fuel, and this method is thought to have little or no adverse effect on biodiversity. However, this is dependent upon forestry being run with greater respect for the environment than at present. It would also require measures to avoid damage to the resources that underpin forest biodiversity. It is particularly important that large dead trees and old de-

ciduous trees are retained, as these provide habitats for many endangered species.

However, other methods of biomass harvesting are considered to have mainly negative consequences – and in some cases, these can be quite severe. More intensive forest management would further reinforce the many negative effects forestry already has on biodiversity. The afforestation of abandoned agricultural land is considered to be highly detrimental to the landscape, as these fields often provide highly diverse habitats. In addition, the cultivation of bio-fuel crops on agricultural land is considered to have largely adverse effects.

1 Eurostat: Energy, Yearly Statistics 2008.

Further information: www.norden.org/en/publications/publications/2009-591

