

#### The Nordic countries in the green transition – more than just neighbours

Strategic recommendations for Nordic co-operation on the environment and climate in the run-up to 2030  ${\it Tine Sundtoft}$ 

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# THE NORDIC COUNTRIES IN THE GREEN TRANSITION - MORE THAN JUST NEIGHBOURS

#### BY TINE SUNDTOFT

Strategic recommendations for Nordic co-operation on the environment and climate in the run-up to 2030





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#### **PREFACE**

In 1950, 2.5 billion people lived on our planet. By 2050, the global population will be around 10 billion – a four-fold increase in a century. The United Nations has long said that this is only feasible if we plan for it.

It was for this purpose that the World Commission on Environment and Development (WCED), often called the Brundtland Commission, was set up in 1983. Its final report, *Our Common Future*, highlighted the links between the environment, the economy and social development. We have to meet our current needs without weakening the basis for future generations to meet theirs.

In 2015, some 32 years later, the UN General Assembly agreed 17 Sustainable Development Goals, and the Paris Agreement was adopted later that year. We will strive to limit the average global rise in temperature to a maximum of 1.5°, all countries must adjust their targets every five years, and a robust reporting system will be set up. All of this is important if we are to meet our long-term goal of achieving climate neutrality in the second half of this century.

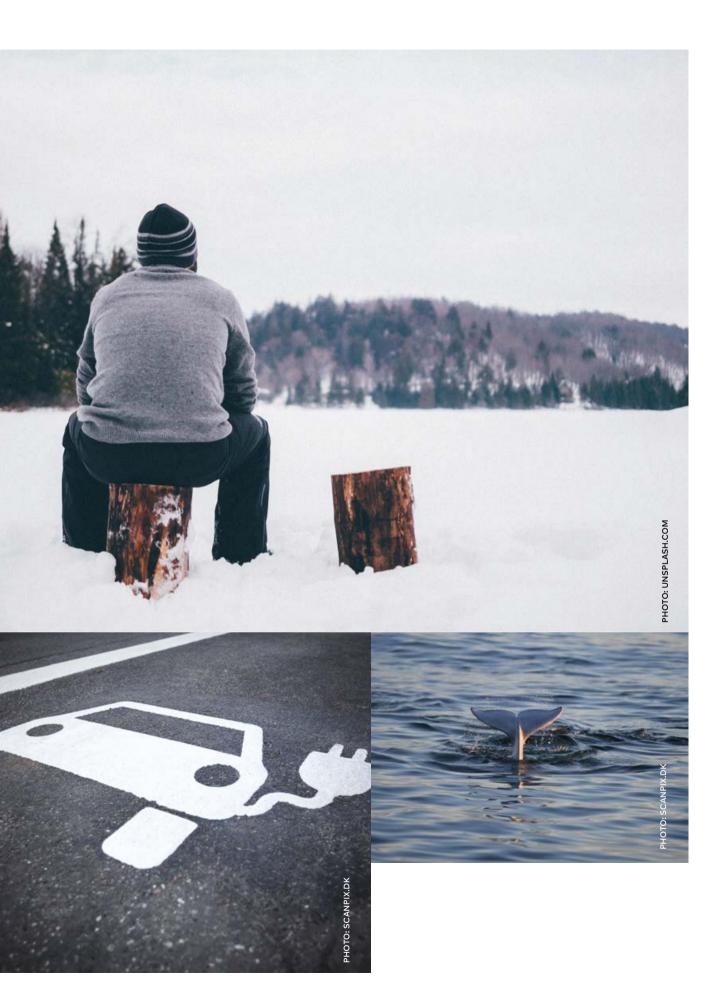
The necessary knowledge and structures are already in place. The Nordic Region now has an opportunity to show that it is willing to take the lead in the transition that we must undergo to ensure tolerable living conditions for the 10 billion people on Earth in 2050.

On behalf of the Nordic Council of Ministers, I travelled around the Nordic Region along with senior adviser Satu Reijonen. We walked 170 kilometres, cycled 70 kilometres and attended 119 meetings. We met researchers, business leaders, politicians, environmental groups, representatives of local government and charitable organisations, and many others. At all of our meetings, we discussed whether the Nordic Region has the ability and the will to take the lead in the transition that the world can and must undergo. We invariably concluded that yes, we have. So what are we waiting for?

If the Nordic Region is to show the way, then our leaders must agree on the direction. My recommendations chart a course for the Nordic Region to make a contribution at global, national, regional and local level. We need to not only pull our weight but also make a contribution outside of the Region as well.

I would like to thank to the Nordic Council of Ministers for commissioning me to conduct this review. Thanks to all those who willingly contributed their time and expertise at our meetings. And thanks to senior adviser Satu Reijonen for her good company and for writing up the report. The content is mine. I believe these recommendations show us the way. It is a path that is necessary – initially up to 2030, but with an eye on 2050 as well.

5 March, 2018 Tine Sundtoft



#### INTRODUCTION

The Nordic countries have been working together for several decades to protect nature and the environment, both within the Region and at international level. Official inter-governmental cooperation is the remit of the Nordic Council of Ministers for the Environment and Climate (MR-MK). In November 2016, the Nordic Council of Ministers for the Environment (MR-M as it was known at the time) asked the Secretary General to initiate an external strategic review of the potential for Nordic co-operation on the environment and climate. The review forms part of the "New Nordic Region" reform project.

This report presents the recommendations from the review. The recommendations constitute the author's independent contribution to the development of Nordic co-operation on the environment and climate. They focus on the work of the Nordic environment and climate sector over the next five to ten years, but have a longer time perspective. The recommendations will help achieve the global environmental and climate-related goals of the UN's Agenda 2030. Decisions taken today must also promote progress all the way until the second half of the century – the deadline for achieving the long-term objectives of the Paris Agreement on climate change.

The review was conducted in 2017 and the early months of 2018. It involved 119 meetings between the reviewer and more than 200 people from various professional backgrounds from Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands, Greenland and Åland. The reviewer also met with representatives of the UN/UNEP and the EU. These conversations provided both inspiration for the recommendations and evidence to underpin them.

#### General observations on Nordic co-operation on the environment and climate

The Nordic countries are deeply committed to working together on the environment and climate, and the work is well embedded within the various national ministries and agencies. Nordic cooperation provides insights, knowledge and networks from which participants say they derive great value. The Nordic countries are closely linked to each other in terms of geography, culture and their economies. Co-operation affords them opportunities for mutual learning and to complement each other's resources and competencies.

Nordic co-operation on the environment and climate is not particularly well known outside Nordic circles. However, external stakeholders stress the great potential in the Nordic countries leading by example and jointly promoting specific environmental and climate issues in international arenas.

There is a clear trend in Nordic co-operation on the environment and climate towards focusing on knowledge production. This work has made valuable contributions to the state of knowledge on various environmental and climate-related problems. The knowledge generated helps, from an early stage, to develop policy and stimulate debate. More specifically, working together on the development and implementation of solutions is not prioritised to the same extent as knowledge production. However, individual projects in the sector that focus on specific solutions show the potential for this type of collaboration.

Nordic co-operation on the environment and climate tackles issues of great relevance. It ranges across various themes, from the protection of wetlands to business models for the circular economy,

which will be of benefit to many different sectors. However, the range of activities is relatively fragmented, and the co-operation does not operate according to clear overall strategic objectives or priorities. Clearer prioritisation of specifically selected areas for action could enhance the visibility and impact of the work. The challenge facing the sector in the future is, therefore, how to provide greater strategic leadership without losing the commitment currently found in the broad sweep of different themes and professional circles.

#### The structure of the report and recommendations

This report presents 12 recommendations for Nordic co-operation on the environment and climate. The intention behind the recommendations is to identify opportunities for making Nordic cooperation an even more relevant and effective driver of the green transition. The challenge is considerable. Nordic societies have to become climate-neutral and toxin-free at the same time as they minimise resource use. We are facing major changes in the production and consumption systems upon which our societies are built. The transition to low-carbon societies must be seriously accelerated if the Region is to contribute to achieving the long-term goals of the Paris Agreement. Climate change, loss of biodiversity and hazardous chemicals in our everyday lives are real challenges here and now.

The 12 recommendations address five broad areas in which Nordic co-operation on the environment and climate ought to play a prominent role. To make the greatest possible impact, Nordic co-operation on the climate and environment should contribute to:

- 1. specific solutions for the green transition;
- 2. the mobilisation of key stakeholders;
- 3. financing the green transition;
- 4. a strong Nordic voice beyond Nordic borders;
- 5. the adaptation to climate change.

The first and main recommendation sets out the overall frame of reference within which Nordic co-operation on the environment and climate

must make a strong contribution. An ambitious aspiration to achieve the goals of the Paris Agreement on climate and the environment, as well as the UN Sustainable Development Goals (SDGs), must be the principal motive for Nordic work on the environment and climate.

Specific solutions for the green transition. Recommendations 2-4 present three proposals for initiatives and priorities for the development of specific measures and solutions. The first recommendation proposes that Nordic co-operation should adopt a strategic approach to working towards a lowcarbon society. A long-term, themed action plan should be developed for Nordic co-operation on a low-carbon society. The plan must be translated into specific initiatives and actions in selected priority areas. Recommendation 3 makes the circular economy a key area for co-operation and proposes a dedicated spearhead initiative on plastic in the circular economy. This would build upon current Nordic work and fit in with developments in the EU. Experiences from working on plastics could be transferred to other materials streams, where circularity should be enhanced. Thirdly, it is recommended that the long-term work to substitute hazardous chemicals should be made a priority. The development and implementation of EU regulation of chemicals is a prerequisite for the systematic, risk-free substitution of hazardous chemicals. This report recommends, therefore, that Nordic work in this area should continue and be enhanced.

The mobilisation of key stakeholders. Decisions on the implementation of low-carbon solutions and changes at system level are usually made outside of the environment and climate sector. It is important to engage all relevant stakeholders in order to ensure that they operate on the basis of upto-date knowledge of the benefits of change. Recommendation 5 calls upon the Nordic environment and climate sector to act as a facilitator and catalyst by sharing knowledge on the economic and social benefits of the green transition. Recommendation 6 proposes that the environment and climate sector should contribute to Nordic cooperation on exporting Nordic green solutions.

Recommendation 7 proposes that promotion of the Nordic ecolabel should be a priority for the sector's work that directly targets consumers.

Financing the green transition. A fundamental transition to cleaner, climate-neutral systems of production and consumption will require major investments in green technologies, infrastructure and administrative innovation. It will require a significant mobilisation of both public and private capital. Recommendation 8 proposes Nordic exchanges of experience on public-sector funding mechanisms for green innovation, green public procurement and public-sector infrastructure investments in green innovation. Recommendation 9 emphasises the need to initiate Nordic discussions at the highest political level on the development of a green financial market.

A strong Nordic voice beyond Nordic borders.
Recommendation 10 addresses the potential for enhancing Nordic influence by planning and coordinating Nordic input into the most important international negotiations.

Adaptation to climate change. Rising temperatures and sea levels will increase the pressure on our ecosystems and biodiversity, which already face challenges. There is a danger of deterioration in the basic conditions for the production of food and access to clean water and air. Recommendation 11 stresses the importance of working together to enhance ecosystem resilience in the face of climate change in the Region.

The final recommendation in this report concerns organisational methods of promoting efficiency and engagement in Nordic co-operation on the environment and climate.

#### MAIN RECOMMENDATION

MAKE A MAJOR CONTRIBUTION TO ACHIEVING THE GOALS OF THE PARIS AGREEMENT AND AGENDA 2030 BOTH IN THE NORDIC REGION AND AT GLOBAL LEVEL

The world has rallied around the Paris Agreement on climate change and Agenda 2030. Nordic co-operation on the environment and climate should be used as a strategic tool to promote and implement these agreements at national and international level.



More than ever before, there is an international consensus on the major environmental and climate challenges. The UN member countries have unanimously agreed the 17 Sustainable Development Goals (SDGs). The Paris Agreement charts a course for national efforts to limit climate change. This shared understanding and the joint efforts to solve the world's most burning environmental problems come at a time when nature's limits are under serious threat.

In their 2017 article, the former UN climate chief Christiana Figueres, Hans Joachim Schellnhuber of the Intergovernmental Panel on Climate Change et al. stressed that if we manage to reduce carbon emissions sufficiently by 2020, irreversible changes in climate can still be avoided. But time is running out for opportunities to keep global warming below two degrees, as stipulated in the Paris Agreement on climate change. The longer we wait, the harder and more expensive it will become to counteract changes to the climate and nature. The consequence may be that much of the work that countries have done on other environmental challenges, such as combatting loss of biodiversity, will be wasted. The development and implementation of the Paris Agreement must therefore be at the top of the agenda for Nordic co-operation on the environment and climate in the near future.

No matter how far we succeed in bringing down  ${\rm CO}_2$  emissions, climate change is already a reality. This is the case for the whole of the Nordic Region, but especially in the Arctic, where continuous warming is particularly evident. We will also need to minimise the related damage caused by new weather conditions, for example to biodiversity. In other words, the work on the climate also covers climate adaptation.

Scientists are warning of even greater damage to biodiversity as a result of human activity. The decline in biodiversity is one of the greatest challenges facing nature in the Nordic Region today. The next few years will show whether we can slow the loss of biodiversity in the Region, on land and in the sea. The preservation and protection of biological diversity

will ensure that the services that nature provides, for example, in the form of food, water, air, materials and medicines, will also be available into the future. Biodiversity also plays a crucial role in maintaining the robustness and resilience of our ecosystems in the face of the challenges presented by climate change.

A third major environmental challenge is the increasing exposure of people and nature to hazardous chemicals in products and production processes. Studies show an increased number of different hazardous chemicals in human blood and body tissue, including pesticides, biocides, heavy metals, softening agents and flame-retardant chemicals. Hazardous chemicals are spreading everywhere: Chemicals used and produced elsewhere in the world are being found in vulnerable areas of the Arctic. We do not know the full socio-economic and health consequences of exposing humans, the environment and nature to carcinogenic, endocrine-disrupting, neurotoxic or otherwise hazardous chemicals.

The Paris Agreement on climate change and the 17 UN SDGs are based on evidence of various negative trends in our climate and nature. The most fundamental aspect of these two agreements is not, however, that they reflect concerns, but that they represent the will to change. In these agreements, the world has rallied around the green transition.

It is crucial that the world maintains its commitment to the implementation of the Paris Agreement and Agenda 2030. Nordic co-operation on the environment must be based on driving the requisite transition in our own Region while also supporting it elsewhere. We must use the Paris Agreement and the 17 UN SDGs as a guideline to change our consumption and production patterns, which today contribute to climate change, unsustainable consumption of materials, loss of biodiversity and the growing chemicalisation of our everyday lives. The primary objective of Nordic co-operation on the environment and climate must be to make a major contribution to the implementation of the Paris Agreement and Agenda 2030, both within the Nordic Region and at global level.

### DEVELOP AND IMPLEMENT AN ACTION PLAN FOR NORDIC CO-OPERATION ON A LOW-CARBON SOCIETY

The Nordic countries have made commitments in both the EU and the UN to reducing climate-changing emissions. They also share an ambition to be climate-neutral. The Nordic environment and climate sector should adopt a more systematic approach to achieving climate neutrality by establishing and pursuing a themed action plan for Nordic co-operation on a low-carbon society.



The Nordic countries are committed to meeting the EU climate-change reduction targets for 2030 and the long-term goals in accordance with the Paris Agreement on climate change. There is still a need for substantial CO<sub>2</sub> reductions in all of the Nordic countries and in particular in sectors that have not yet managed to stabilise their climate-change emissions. There is still a long way to go before the Nordic Region can be called climate-neutral, especially if account is taken of emissions related to consumption outside the Region.

The transition that the Nordic countries must undergo is something we can and should tackle together. Many of the challenges that the Nordic nations face are similar from country to country. From a global perspective, our lifestyle, cities, housing and transportation mechanisms are also similar. Overall, the Nordic nations also possess a range of complementary technological and planning solutions and competencies that can bring us closer to our goal. In addition, the Nordic Region constitutes the world's 11th largest economy with considerable green purchasing power, and therefore substantial resources for change.

In order to meet our climate-change targets, we must look for work that has tangible results. Nordic climate co-operation should therefore focus on concrete contributions to the transition to a low-carbon society. We need to implement promising climate innovations that have already demonstrated their impact. We must also speed up changes at systemic level in energy, construction, food and transport. Solutions in these areas are also the key to a competitive region and a strong economy in the climate-neutral world of the future.

The specific recommendation is that the Nordic environment and climate sector should draw up and implement an action plan for co-operation in order to achieve a low-carbon society by 2050 or earlier. The plan must promote climate-change leadership, exchanges of experience, dialogue and closer Nordic co-operation in strategically selected areas. It must also bring Nordic co-operation

closer to the specific choices and decisions that the countries need to make and implement in order to become climate-neutral. The main elements of the action plan will be:

- timetabled discussions of key themes to do
  with climate neutrality, such as low-emission
  mobility, construction and housing, climateneutral towns, cities and small communities,
  food, energy, trade-offs between climate and
  biodiversity, and drawing up climate legislation;
- exchanging information with each other at Nordic level about experiences as a part of the debate on each key theme, for example regarding cost-efficient initiatives, instruments with potentially negative effects on the climate, and funding mechanisms for implementing green innovation; and
- specification of further co-operation on the themes, for example coordinated production of knowledge for use in policy processes or international negotiations, common rules or harmonisation of rules, division of labour between the Nordic countries, and partnerships with business.

Background material on each theme will be produced for the scheduled discussions.

The themes will be discussed at Nordic level, preferably by the relevant ministers. Given that people other than climate and environment stakeholders often take decisions about solutions and instruments for establishing a low-carbon society, the discussions should be conducted in dialogue with other ministers and relevant stakeholders. For example, stakeholders in transport, energy, construction and town planning will play key roles in the implementation of the Paris Agreement. The environment and climate sector can show leadership by taking on the roles of initiator and catalyst, based on its extensive knowledge of climate and environment effects, and of instruments and solutions for the green transition.

### ESTABLISH A NORDIC FORUM ON A TOXIN-FREE, CIRCULAR ECONOMY FOR PLASTICS

To minimise the negative effects of the use of plastic on nature, the aquatic environment and climate, the Nordic countries should work together systematically to create a plastics economy based on long-life products, design for recycling, toxin-free product cycles and efficient markets for recycled plastic. There should be a Nordic forum for promoting dialogue, exchanges of information about experiences and the coordination of national efforts to establish a toxin-free circular economy for plastic. The forum would also be empowered to initiate Nordic projects in this area.



The Nordic economies of the future should be based on a circular rather than linear consumption of resources. This will ultimately apply to all production and consumption, but some materials must be higher up the agenda than others during the start-up phase. Plastic is one of the materials that should be a priority. Plastic consumption is high and rising in the Nordic Region, as well as elsewhere in the world. The related environmental and climate problems have reached a point at which we have no alternative but to introduce circularity into the use of plastics.

Work on plastics has been going on at Nordic level for several years, most recently through the current "Nordic programme to reduce the environmental impact of plastic 2017–18". The Nordic countries are also working actively on plastic and the environment at national level. There is still a way to go, however, before plastic production and consumption in the Nordic countries can be called sustainable: each year 700,000 tonnes of plastic end up in incineration or landfill in the Region. The recycling level is still relatively low in comparison with other materials. There is huge untapped potential in the reuse and recycling of plastic in all of the Nordic countries.

Thanks to previous work in the plastics field, there is strong consensus on the main barriers to a circular economy for the material. Despite this, we still need to work out exactly how to solve these problems. The lack of design for long life and reuse, lack of transparency in the value chain regarding materials and additives (including hazardous chemicals), lack of collection and sorting capacity and the prices of secondary plastics are some of the problems that need to be solved.

The Nordic countries should work together to move towards solutions to these problems. All of the Nordic countries have already embarked on work on national plastics plans. With this in mind, closer coordination between the countries and exchanges of information about specific

measures should be key elements of the cooperation. Against this background, the report recommends setting up a dialogue and coordination forum for national work and for Nordic cooperation on a circular, toxin-free plastics economy. In addition to facilitating coordination and information exchanges, Nordic funding should be used to provide up-to-date information on relevant activities by the countries and other key players. Special Nordic initiatives can also be undertaken, such as joint research projects, pilot and demonstration projects, capacity building, and the development of funding instruments or communication with key stakeholders. Through this forum, the Nordic Region would also be able to make a major contribution to the development of plastics policy in Europe and the implementation of the EU strategy for plastics in the circular economy.

The lessons learned from the proposed work on plastics could be applied to Nordic co-operation on other material flows where a need for greater circularity is identified.

# PROMOTE KNOWLEDGE-BASED SUBSTITUTION OF HAZARDOUS SUBSTANCES VIA THE EU'S REGULATION OF CHEMICALS

The long-term Nordic goal on chemicals should be the substitution of all hazardous substances in products and production with less problematic alternatives. In order for substitution to be done in a safe, informed way, strong and well-implemented EU chemicals legislation remains a priority for Nordic environmental co-operation. The Nordic countries should continue to work together to develop tools and knowledge for evaluating the impact of chemicals with a view to the substitution of problematic substances.



The long-term goal of Nordic environmental cooperation on chemicals should be the effective and environmentally sustainable substitution of hazardous chemicals where their use creates a risk for the environment and human beings. Substitution must be based on knowledge of the effects of hazardous substances and the chemicals that replace them. Only once we know the effects of chemicals can we make policy decisions about restrictions or substitution. The transition to a circular economy makes the replacement of hazardous chemicals even more important. In order to facilitate toxin-free cycles, problematic substances must be replaced in recycled materials.

EU/EEA chemicals regulations are underpinned by a knowledge-based approach to the effects of chemicals and their use. In the implementation of both REACH and CLP, any regulation of the use of chemicals must be based on an evaluation of the hazards involved. There are currently more than 100,000 chemicals on the market. We lack basic knowledge of many of them.

The Nordic countries have a strong interest in EU chemicals regulation and management being as robust as possible. The advantage of a system at EU/EEA level is that it leads to environmental improvements across national borders. It also establishes a "level playing field" and minimises obstacles to freedom of movement for companies. This allows for tighter chemicals legislation without negative consequences for national competitiveness.

Substances of Very High Concern (SVHC) and strategies for their replacement with less hazardous substances or alternative techniques is one of the areas in which Nordic environmental cooperation offers clear added value. Nordic input has been and will remain important in determining the criteria to be used in the definition of SVHCs, in screening them, in assessing their effects and in establishing risk-minimisation and control strategies. There is also a need for Nordic input

into making REACH more efficient, including the development of assessment approaches based on grouping of substances.

Successful screening and evaluation will require the development of new testing methods. The development of test methodology will have an impact on what effects can be included when evaluating the extent to which particular chemicals are hazardous. Nordic participation in the development of this test methodology continues, therefore, to be a costeffective way of ensuring that in the evaluation of substances – and ultimately, in the handling of them - account is taken of issues of Nordic interest such as endocrine disruption, nanomaterials and potentially, substances that are imported or produced in low volumes. This knowledge-intensive, pre-pipeline work is therefore of great political importance in the chemicals area. The OECD, in particular via its Test Guidelines programme, is an important partner in this context.

In areas where the knowledge base for the replacement of hazardous chemicals is sufficiently strong, it is time to focus more on how the substitution of hazardous substances can be promoted within companies. The Nordic countries must actively explore opportunities for resource-efficient organisation of information on substitution, under either Nordic or EU auspices, such as through the EU Chemicals Agency (ECHA).

### BUILD GREATER AWARENESS OF THE BENEFITS OF A GREEN TRANSITION

The Nordic countries are known for taking the lead in developing and implementing green solutions. Given the challenges ahead, it is important that all stakeholders contribute to finding sustainable solutions for the environment and climate. In order to mobilise key stakeholders, the Nordic environment and climate sector should therefore help to generate and disseminate knowledge about how much is at stake in terms of the economy, health and quality of life when we talk about a green transition. The Nordic environmental and climate sector should help translate the green transition into language that is better understood from a social and economic perspective.



Decisions that drive green transition and positive natural and environmental status are often taken outside the sector. Although environmental awareness is on the rise, there is still a need to draw greater attention to the social and economic benefits of the green transition. The more clearly this is done, the higher the level of commitment we can expect from the other relevant stakeholders.

The Nordic environmental and climate sector has already begun to highlight interconnections between environmental issues, the economy and society. Good examples of this are the work on ecosystem services, alternatives to GDP and calculations of the economic impacts of certain chemicals on reproductive health. In order to encourage other sectors and stakeholders to get involved, the Nordic environmental and climate sector should systematically incorporate socio-economic calculations, for instance in relation to the benefits of reducing the use of oil or other raw materials that have an impact on the climate and environment, vulnerable rural areas and ecosystems, or hazardous chemicals. Socio-economic analyses of the benefits of specific measures are particularly interesting when compared with evaluations of the cost of these

Socio-economic consequences are important, but they are not always the only aspects that generate support for and add legitimacy to the green transition. Data showing how many jobs will be created in the circular economy, or how many people remain childless due to the use of endocrine disruptors, can be just as effective. An interactive map of the climate-related conflicts and refugee flows of the future can be illustrative of the social and political challenges posed by climate change. On the other hand, we also need to increase awareness of the good, climate-neutral life.

measures and the cost of inaction.

As well as highlighting the benefits for the economy and the individual, the competitive advantages of a green transition should also be communicated. We need to come up with a business case for green transition in order to engage the business community, politicians and the agencies responsible for key policy areas.

### CONTRIBUTE TO NORDIC CO-OPERATION ON PROMOTING EXPORTS OF NORDIC GREEN SOLUTIONS

As a whole, the Nordic countries possess many of the technologies and other solutions that the world needs in order to be able to adapt. We have highly developed solutions in areas such as water supply, waste disposal, green town planning, transport and energy. Often, the individual Nordic countries possess competencies and solutions that complement each other. Nordic co-operation on the environment and climate should help promote emerging partnerships with a view towards exporting green solutions.



According to the State of the Nordic Region 2018 report, the Nordic Region is the most innovative in Europe, not least in terms of clean technologies. Overall, the Nordic countries already possess many of the solutions necessary to meet the Paris Agreement targets and the UN SDGs. The Nordic Region has highly developed solutions in areas such as water supply, waste disposal, green town planning, transport and energy. Nordic co-operation can help generate even greater value from these solutions on global markets.

The global markets for sustainable technologies and other solutions are growing rapidly, and there is room for products and services from all of the Nordic countries. The problem almost seems to be the reverse: Nordic companies are already finding that their national business clusters are too small to exploit global market potential. In many areas, the individual Nordic nations possess competencies and solutions that complement each other. This gives us the opportunity to think in terms of working together instead of competition when operating in global markets. The Nordic Region has enormous potential when it comes to partnerships for green solutions in the major markets of the world such as China, India and North America.

The first step towards supporting joint value creation through Nordic co-operation on the export of green solutions has already been taken. The main objective of the initiative of the Nordic prime ministers in 2017, Nordic solutions to global challenges, is to promote the Nordic branding of solutions from Nordic companies. One of the areas covered by the prime ministers' initiative is Nordic solutions for sustainable cities. In addition to Nordic branding under the Nordic Sustainable Cities theme, support is also being provided for establishing consortia of Nordic companies and matchmaking between these consortia and potential international buyers. These activities are being overseen by Nordic Innovation (NI), a Nordic institution under the Nordic Council of Ministers for Sustainable Growth, working closely with national

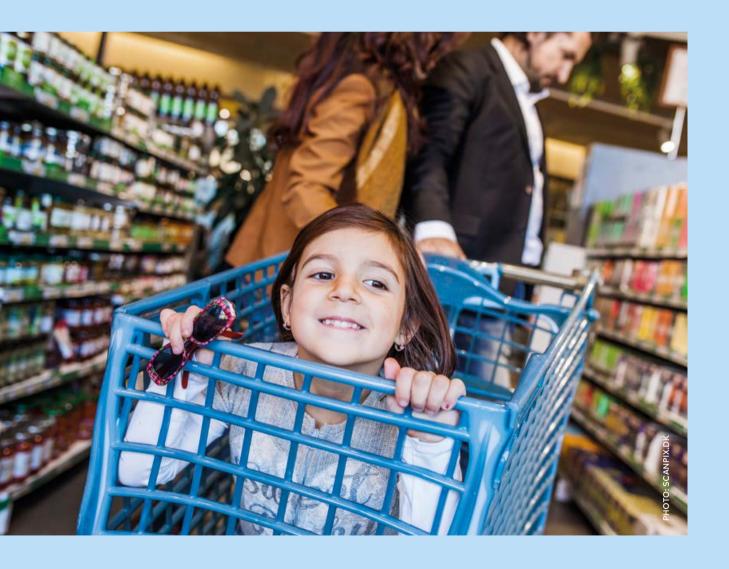
export councils and embassies. The Nordic Energy Solutions project will also promote Nordic energy solutions and companies, focusing on electricity markets in East Africa. This work will be overseen by Nordic Energy Research (NEF).

Capitalising on national investments in green solutions can also be good for business and improve bottom lines. It enhances the legitimacy of ambitious national environmental and climate policies. It is therefore in the interests of the Nordic environment and climate ministers to contribute to the development of the emerging collaboration on green exports. This report recommends, therefore, that the environmental and climate ministers follow up on experiences of export co-operation in dialogue with the ministers for business and industry. Based on experience of current and planned activities, the sectors can look into the need for further Nordic activities on the sustainable cities theme. These could, for example, relate to the development of a specific export cluster, such as water supply technologies and systems, waste disposal technologies or new approaches.

The Nordic environment and climate sector should also help identify other potential areas for green export partnerships, which could subsequently be the subject of similar Nordic initiatives in terms of branding and building up export clusters in line with the prime ministers' initiative, or in other contexts. Other Nordic export strengths could also be utilised in areas such as sustainable environmental management, climate change adaptation or the circular economy. The Nordic Project Fund (Nopef) and national export credit agencies could also be important players in co-operation on the export of Nordic green solutions.

#### SUPPORT AND STRENGTHEN THE NORDIC ECOLABEL

The Nordic ecolabel is the best way for Nordic climate and environmental co-operation to reach out directly to consumers. By buying products bearing the Nordic Swan Ecolabel, consumers exert greater influence on the environmental effects of their consumption. Nordic environmental co-operation should therefore continue to support and strengthen the ecolabel. This can be done in several ways. In addition to the sector's direct contribution to the Nordic ecolabel organisation, work on public procurement and positive price incentives for eco-labelled products could also be productive ways of strengthening the label.



The Nordic Council of Ministers set up the official Nordic Swan Ecolabel in 1989. It is the best-known ecolabel in the Nordic Region – 89% of the population recognise the logo. The ecolabel is an important tool for strengthening and stimulating consumers' competencies. It enables people to make reliable, environmentally aware choices without expert knowledge.

Nordic co-operation on the environment and climate should continue to play an active role in supporting and strengthening the ecolabel so that it plays an even bigger role in stimulating sustainable consumption. This can be done in many ways and on many different levels. Firstly, the Nordic environment and climate sector can continue to support and work with the ecolabel organisation on the strategic development of the label. More people need to be encouraged to buy ecolabelled products, more of them need to be available in the shops, and the number of types of products covered by the scheme needs to be increased. The scheme is also in need of a comprehensive overhaul to equip it for the digital era.

Secondly, Nordic co-operation on the environment and climate can strengthen the Nordic ecolabel by promoting the concept of ecolabelling within public procurement. In 2017, Nordic guidelines were published on the interpretation of the EU's 2014 directive on public procurement, and specifically on the use of ecolabels in EU procurement. Taken together with several other Nordic projects on green procurement, these guidelines provide a good basis for further work to promote the use of ecolabels, including the Nordic label, in public procurement.

A third way in which co-operation on the environment and climate can support the Nordic ecolabel is by assessing the possibility of building up positive price incentives for ecolabelled products. Environmentally friendly consumption ought to be easy, simple and financially rewarding if we are to truly reap the benefits of consumers' willingness to adapt. Despite this, as things stand at the

moment, it is the licence holder – and ultimately the buyer – who pays the costs associated with the ecolabelling of the product.

The Nordic Council of Ministers does not have a dedicated ministerial council or working group for consumer affairs, and - apart from a few exceptions – consumer protection agencies do not take part in Nordic co-operation on the environment and climate. In these circumstances, the environment and climate sector needs to prioritise the use of its resources in order to reach out directly to consumers. From the Council of Ministers' perspective, the Nordic ecolabel must be the most effective and efficient way of achieving results in this area. Ecolabelling is also part of the corporate world's contribution to the green transition, which makes the Nordic Council of Ministers' business and industry sector an obvious partner for work on the ecolabel.

## SUPPORT THE NORDIC COUNTRIES IN THEIR ENDEAVOURS TO OPTIMISE THE USE OF PUBLIC FUNDS TO PROMOTE THE GREEN TRANSITION

The transition to a low-carbon society will require more money for environmental and climate-friendly innovation. Public-sector funding schemes, public procurement and subsidies for major infrastructure projects add up to a funding stream with great potential for promoting the development, commercialisation and implementation of green solutions. Nordic co-operation on the environment and climate should contribute to exchanges of experiences and knowledge-building between the Nordic countries on how best to use these mechanisms to promote a green transition.



It is estimated that, in order to meet the 2030 targets in the Paris Agreement, an additional €170 billion per annum is needed for green solutions in the EU area alone. Meeting the goals of Agenda 2030 will require an even greater financial commitment. Funding is needed to develop, commercialise and implement major systemic and infrastructural changes, as well as minor innovations in virtually all areas of economic activity. In the next few years, it will be particularly important to speed up the commercialisation of promising solutions for a low-carbon society that have already been tested.

The Nordic countries have a range of funding mechanisms such as loans, subsidies and guarantees for innovation, both green and non-green. Both public and private bodies can apply for funding to foundations, programmes and funding pools. The funding available is usually for development, testing and demonstrations. Some funding instruments also cover the development of concepts for the market. This type of subsidy is essential for the development and spread of innovation. Public funding can also help attract private capital for riskier innovation and commercialisation projects.

Specifically, this report recommends that the Nordic countries exchange information about their experiences and build up knowledge of instruments for public-sector subsidies. The purpose of these exchanges of information is to give the countries a better understanding of how best to use these instruments for the benefit of the green transition. In this context, it may also be fruitful to discuss whether additional services, such as providing guidance and coaching, would enhance the effectiveness of the funding. It is also important to discuss the combined effect of different schemes and to assess the possible need to make some of the other existing funding instruments greener. Based on this knowledge, national mechanisms and funding schemes can be optimised to promote green transition.

In addition to the above-mentioned funding mechanisms, there are other ways in which public spending can be used to promote green innovation and solutions. Public procurement and investments have great potential in terms of stimulating the demand for environmentally friendly products, services and other solutions at system level. As a result, this report therefore recommends more active sharing of knowledge and experience of ways in which the Nordic countries have been able to allocate public funding to support a green transition through public procurement and subsidies.

### ORGANISE A NORDIC SUMMIT ON THE DEVELOPMENT OF GREEN FINANCIAL MARKETS

There is great need to redirect both private and public-sector capital investments to support the green transition. As a catalyst for the green transition of financial markets, the EU Commission will formulate a series of measures to encourage greener markets. To follow up on and develop this initiative, the Nordic environment and climate ministers should organise a Nordic summit of key stakeholders with a view to developing greener financial markets in the Nordic Region.



Achieving the goals of the Paris Agreement and the Agenda 2030 SDGs related to the environment and climate will require a fundamental change in the use of financial resources. Subsidies, public procurement and public-sector investments in environmental and climate-friendly infrastructure are a start (recommendation 8). However, there is no doubt that this will be insufficient – if we are to achieve the goals, private capital and capital from institutional investors must also be mobilised.

rallying support and inspiring progress in the Nordic countries. Specifically, the discussions should take the form of an official Nordic summit or an open, exploratory dialogue at top level.

The EU High-Level Expert Group on Sustainable Finance Group (HLEG) has just published its recommendations on how a greener financial system could be built at EU level. One of its main conclusions is that changes would need to be made in many different areas of the financial world. HLEG underlines the need to develop joint definitions and standards for green investments and investment products, transparent and comparable data on green investment opportunities, and risks related to the environment and climate. The recommendations also point out the need for better integration of sustainability aspects in the work of both financial institutions and financial supervisory agencies. The Group also proposes measures aimed at banks, insurance companies, asset managers and stock exchanges.

The HLEG recommendations clearly show the need for both policy initiatives and co-operation with private financial institutions and organisations. The EU action plan for a sustainable financial system, published in March 2018, sets the direction for work at EU level. This work should be supported and complemented at regional and national level. This report recommends, therefore, that the Nordic environment and climate ministers should initiate dialogue with finance ministers and key stakeholders in the financial world, such as large institutional investors, industry associations in the financial sector and the Nordic Investment Bank, to define and explore opportunities for Nordic initiatives. These discussions will also be important for

### DEVELOP A PLAN FOR NORDIC CO-OPERATION IN INTERNATIONAL FORUMS

The next three years will be crucial for international environment negotiations on the climate, biodiversity and chemicals. Nordic environment and climate ministers should develop a plan for where in these processes strategic Nordic initiatives should be deployed. This plan must be followed up by knowledge-building and the dissemination of knowledge and best practices, as well as joint efforts at negotiations by both official and unofficial Nordic co-operation on the environment and climate.



The Nordic countries enjoy great respect internationally due to the serious environmental and climate work that is already underway. The Nordic countries also actively contribute to dialogue and knowledge in international forums. Overall, this means that the Nordic countries wield more political "soft power" than their populations would suggest.

Nordic co-operation means that, internationally, the Nordic countries enjoy a positive reputation and a great deal of credibility. Nordic funding has been used to generate knowledge about the environment and climate. The Nordic countries have jointly promoted specific issues in the negotiations via joint declarations and mutual support for each other's proposals. In climate change negotiations, Nordic negotiators have worked well together in the Nordic Working Group for Global Climate Negotiations (NOAK). The unofficial Nordic network of negotiators that exists independently of official co-operation on the environment and climate testifies to the overall strength of Nordic co-operation.

The next few years will see important international negotiations on climate change, chemicals and biodiversity. Continuing global increases in CO<sub>2</sub> emissions mean that achieving the targets in the Paris Agreement will not be easy. The Strategic Approach to International Chemicals Management (SAICM) expires in 2020. Discussions on a possible international platform for chemicals and waste management have already begun. On biodiversity, preparations have started for a process that will lead to a new, post-2020 global framework for biodiversity under UN auspices.

The Nordic countries can achieve more by working together in international forums. Even though the twists and turns of international negotiations are often difficult to predict, they also deal with long-term strategic perspectives on well-known issues. The Nordic environment and climate ministers should, therefore, develop a plan for

strategic Nordic interventions in these processes, aimed at achieving the results that the Nordic countries as a whole want to see in the next few years. The plan should be a strategic, dynamic instrument that makes systematic use of knowledge-building and the dissemination of knowledge and best practices part of joint Nordic input into future negotiations. The plan should be drawn up in co-operation with the relevant official Nordic working groups and with unofficial Nordic networks. Embedded dialogue and planning would facilitate the optimal use of funding and the other opportunities offered by co-operation at ministerial level.

### DEVELOP A NORDIC ACTION PLAN FOR CLIMATE RESILIENCE OF ECOSYSTEMS AND DIVERSITY IN NATURE

Climate change increases pressure on our ecosystems and their foundation: biodiversity.

This is a challenge to the services that ecosystems provide for us, such as food, clean air and water. Now and in the future, ecosystems' climate resilience will therefore be crucial to both the economy and our quality of life. The Nordic countries should draw up an action plan for knowledge- and capacity-building with a view towards enhancing climate resilience in nature. Nordic co-operation is also needed to ensure that animals and plants have the opportunity to adapt to new climatic conditions across national borders throughout the Region.



We are deeply dependent on ecosystem services such as clean water and clean air, food, pollination and climate regulation. Despite this, human and economic activities such as agriculture, forestry, fisheries, town planning and infrastructure expansion are putting great pressure on ecosystems and their resilience. Ecosystems are being fragmented and destroyed, which leads to a deterioration in both the conditions of life for various species and the diversity of nature. Since biodiversity is essential for ecosystems' ability to deliver services and for their resilience, this means that they too are being further weakened.

Climate change further amplifies the pressure on our ecosystems. The rate of temperature and climate change will exceed the rate at which species are able to adapt or migrate to other areas. This significantly increases the risk that species will be weakened or die out. A decline in biodiversity affects the ability of individual ecosystems to provide ecosystem services. When the diversity of nature as a whole is reduced, the total output of ecosystems also falls.

Healthy, robust ecosystems are better able to withstand the effects of climate change. Resilient ecosystems can also more easily recover and adapt to changing living conditions. The best strategy for increasing and maintaining resilience is to ensure a sufficiently wide variety of species and a sufficient number of habitats. This can be done by strengthening ecosystems that have already been weakened, and by minimising the pressure from other stress factors on robust and healthy ecosystems. In addition, it is important to maintain links between habitats, so that green and blue corridors enable natural migration.

In all of the Nordic nations, work on adaptation to climate change has already begun. The Nordic countries have also set up research projects to look at which habitats and ecosystems will be most affected by climate change. At the same time, within the framework of Nordic co-operation, the

Nordic countries are taking stock of their ecosystems and the services they provide (Nordic IBPES). This is a good time to learn from each other and compare national work, for example on the climate-integrated management of nature, land-use planning and activities in sectors affecting nature's ability to recover and develop. Nordic co-operation should therefore cover legislation, instruments, subsidies and the role of local stakeholders in climate resilience. Specific methods for enhancing cohesion, resilience, recovery and the dynamic development of ecosystems are also essential as a focus for co-operation, in order to preserve and improve the condition of ecosystems in the Region. It is also possible to identify common areas of concern in Nordic nature, such as Arctic and coastal areas, and to safeguard dispersion corridors. The Nordic countries can make great strides towards enhancing climate resilience via their systematic co-operation and division of labour in knowledge- and capacity-building.

### REFINE FORMS OF CO-OPERATION THAT GENERATE EVEN GREATER NORDIC SYNERGIES

Nordic co-operation on the environment and climate works well and has deep roots in the different nations. The forms of co-operation can, however, be refined further in order to achieve greater impact and benefits for the countries. With strategic spearhead initiatives, better division of labour between them and coordination of national resources and inputs, the Nordic nations can make an even greater environmental impact. Single countries hosting specific initiatives will also reinforce associations with the national policy context and expertise.



Nordic co-operation on the environment and climate covers a wide spectrum of relevant themes and is already well embedded in the different countries. National participation in working groups engages extensive Nordic networks and provides direct links to national agendas. At the same time, co-operation is very much defined by the breadth of the Nordic network, which entails a risk of fragmentation. The fact that the work is almost exclusively done by permanent working groups also means that work on themes outside of these groups' remits is particularly challenging.

Current Nordic co-operation on the environment and climate could be usefully complemented by three different kinds of work, as presented below.

Firstly, greater use could be made of major spear-head initiatives in Nordic co-operation on the environment and climate, in order to promote themes with high strategic priority. To facilitate strategic prioritisation in the sector, this report recommends that the countries designate leading officials and top-level experts from public agencies to define strategic activities for periods of two to three years at a time, for instanc by inviting heads of specific national agencies to dialogue meetings. Alongside spearhead initiatives of this kind, room still has to be found for initiatives of a more ad hoc nature, as well as networking in the working groups.

Secondly, the working group structure has limitations when it comes to Nordic initiatives that require competencies that the members of the groups do not possess. For this type of initiatives, it is worth considering whether to place responsibility for development and coordination, as well as the associated resources, in a specific national agency. The advantage of this is the ability to establish direct links between the project management and relevant experts and ensure access to the collective competencies of the host institution. The host country could be chosen based either on who is chairing the Council, or on interests and opportunities. Similar organisational methods have previously been used in the Nordic environment sector, for instance in plastics and textiles.

Thirdly, it would enhance the impact of Nordic co-operation if the countries saw Nordic funding as a catalyst for further collaboration, and Nordic co-operation as a platform for coordination of and between national initiatives. As part of Nordic co-operation on chemicals, the countries have, in some cases, coordinated their national work in relation to EU evaluations, resulting in a wider-ranging contribution with greater impact. In some cases, individual countries have supplemented Nordic funding with national funding to facilitate a project or initiative on a larger scale. In principle, national funding from all of the Nordic countries – or at least, those interested in contributing - could be merged or coordinated to strengthen specifically defined areas of work in which they share an interest. The coordination of national efforts and funding is particularly appropriate in connection with knowledge-building and communication.



Nordic Council of Ministers Nordens Hus Ved Stranden 18 DK-1061 Copenhagen K www.norden.org

#### THE NORDIC COUNTRIES IN THE GREEN TRANSITION – MORE THAN JUST NEIGHBOURS

The Nordic countries have been working together for several decades to protect nature and the environment. This report presents the recommendations that have emerged from an external strategic review of the potential for official Nordic co-operation on the environment and climate under the auspices of the Nordic Council of Ministers for the Environment and Climate. The recommendations relate to the following five main areas: specific solutions for a green transition, the mobilisation of key stakeholders, funding the green transition, international co-operation, and adaptation to climate change.

This report is part of a series of strategic and prospective studies commissioned by the Nordic Council of Ministers. Previous strategic reviews have dealt with working life, health and energy. The strategic reviews are part of the Nordic Council of Ministers' reform programme.