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Our shared nature



Almost everyone in Denmark spends some time in nature on a daily basis. On our way to school or work, some of us cycle through the open fields of Amager Fælled, where sea-buckthorn and mute swans thrive. Others jog through the glacial landscape around Mols or take a walk with their family in the old beech wood at Vejle Fjord. This gives us a deep feeling of belonging. It is our nature and it has taken its shape over generations.

Nature and the countryside are vital for our quality of life and our recreation. Nature gives us clean drinking water, clean air, a better climate and prevents flooding. The sea and the land are the basis of good, healthy food products. Moreover, we appreciate being able to watch and follow nature over the seasons; we are happy to pay more for a house at the edge of a forest or with a view over open water.

Nature is also the framework for many of the communities that bind us together: scouts, anglers, hunters, sports clubs, the Danish Rambling Association etc. At the same time, Danish nature and the countryside represent one of our most important attractions for tourists and outdoor activities — and this creates thousands of jobs.

This means that nature is valuable and must not be taken for granted. Rather, we need to take active care of it. This is why the Danish Government has a vision for a richer, more coherent and more diverse nature in 2050.

The Danish Nature Policy – Our Shared Nature means that, for the first time, Denmark has a cohesive and ambitious nature and countryside policy with

specific initiatives that will create more and also better natural habitats – including at sea.

Fortunately, initiatives taken in recent decades in favour of nature are now beginning to show results. For example, re-meandering the Skjern River has provided wild salmon with new spawning grounds, while a large number of meadow and water birds have been given new habitats for feeding and nesting. What is more, positive trends can be detected for other habitat types and species, for example with regard to watercourses, most birds of prey and the otter.

However, the state of some of our natural habitats is still poor and some are even deteriorating further. The same applies for many of the wild animals and plants that live in these habitats. One of the biggest challenges facing natural Denmark is that individual natural habitats are small in size and not sufficiently coherent. The Government wants to rectify this situation by means of this plan.

With this plan for Danish nature and countryside the Government invites everyone – individuals, municipalities, companies, agriculture, organisations and charities – to take part in working for our natural environment. Nature is of such fundamental importance for our existence that we need to find solutions together. Nature is an important framework for our community: everyone's nature – everyone's responsibility.

The Government, October 2014



1. The Government's vision for our shared nature

Vision

By 2050 Denmark will be a greener country with more diverse nature, and in particular it will be a country in which internationally protected natural areas, large forests, national parks and most important habitats for endangered species - including marine environments - will be more coherent.

The Government is putting forward this vision to show the direction for its nature and countryside policy going forwards to 2050. Natural habitats will be connected across Denmark so that links are created between town parks, green areas outside towns, meadows and pastures, hedgerows, open heaths, nature in the forests, coasts and the sea. This will benefit nature and provide opportunities for more and greater shared nature experiences.

The Danish Nature Policy – Our Shared Nature contains three areas for initiatives:

• More and better interconnected nature:

Bigger and better natural habitats will be created, which will be better connected in order to facilitate the dispersal and movement of wild animals and plants.

- Strengthened initiatives for wild animals and plants: The Government will initiate targeted initiatives for endangered and rare species, but also to consolidate the diversity of nature in general.
- Improved sense of community through nature experiences and outdoor activities: The majority of Danes spend time in nature often in the company of others. We will create more and better opportunities for this, for example through local partnerships.

By means of specific initiatives in each area, the Government will create a richer natural environment where natural habitats, wild animals and plants thrive – in forests, in the open countryside, in the sea and in Danish lakes and watercourses. One of the things this will involve is creating bigger, interconnected and more robust natural habitats. This is because of the positive relationship between the richness and diversity of nature and the amount of interconnected natural habitat.

The specific initiatives demonstrate a focused nature and countryside policy that protects nature where it is most needed and focuses on exploiting synergies to protect groundwater, reduce greenhouse gas emissions and create a cleaner aquatic environment.

With these new nature and countryside policy initiatives, the Government is following up on its Government Policy Platform. The policy states that the Government will ensure that the diversity, variety and beauty of Danish nature is preserved and developed in a sustainable manner and for the benefit of welfare and well-being in Denmark.

The Danish Nature Policy – Our Shared Nature also has its starting point in the recommendations made by the Danish Commission on Nature and Agriculture

The Danish Nature Policy – Our Shared Nature is Denmark's biodiversity strategy and follows up on the UN's and EU's biodiversity targets for 2020.

regarding better and more sustainable solutions for strengthening nature, improving biological diversity and protecting endangered species. The Danish Commission on Nature and Agriculture concluded that it is primarily existing nature that needs to be protected and improved, but that more new natural habitats and better coherence between natural habitats must be established. Furthermore, our nature measures need to focus on rare and endangered nature as well as more common nature, because all nature is important.

At the same time, the Government has been involved in setting up the Danish Nature Foundation, which is an innovation in Danish nature and countryside policy. In the future, the Foundation will be able to contribute towards increasing the area of Denmark's natural habitats and making natural habitats more cohesive to benefit animals, plants and the nature experiences available to Danish citizens. The foundation was established as part of a collaboration between the Government, the Aage V. Jensen Nature Foundation and the VILLUM FOUNDATION.

The Danish Nature Policy – Our Shared Nature is Denmark's biodiversity strategy and follows up on the UN's and EU's biodiversity targets for 2020. The Government will work towards halting the loss of diversity in the natural environment by 2020.

SHARED MEASURES

The nature and countryside policy needs to be put into practice by individuals, municipalities, central government, organisations, farmers, forest owners etc. through dialogue and nature measures in a way that makes sense in a local context. It is our shared nature and we all have a responsibility for it.

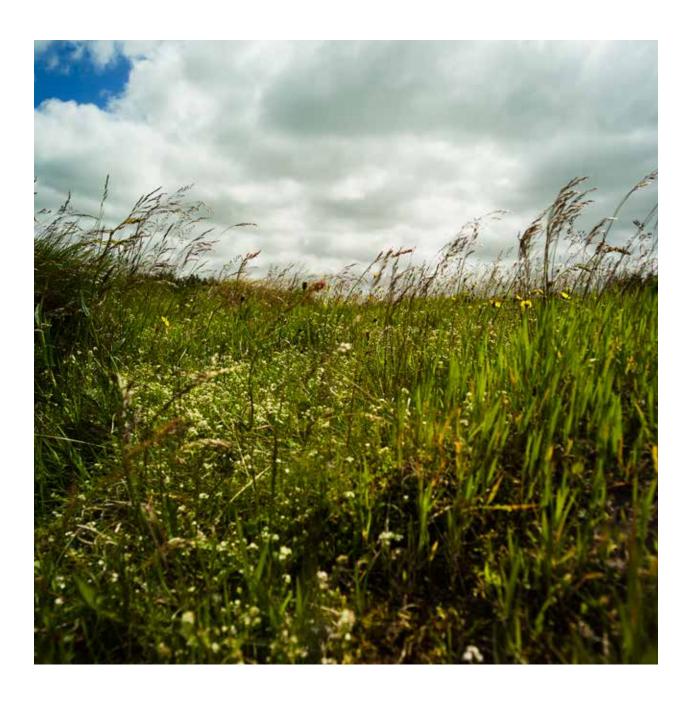


The municipalities have the knowledge that is vital for good nature planning, and targeted nature management can therefore take place at municipal level.

Organisations know a great deal about where our natural treasures can be found. Others also have important contributions to make – for example the holiday cottage owner who lets the grass grow, the farmer who cultivates hay in his meadow, the city dweller who is a member of the cow grazing guild, the teacher who takes her class out into the countryside, the hunter who plants a patch of woodland and the angler who establishes a spawning bank.

A strong nature and countryside policy must be reconciled with development of business and growth. That is why it is important to strike a balance between nature and countryside policy and consideration for future agricultural production opportunities. Nature measures on private land are voluntary – e.g. through converting to organic production and through nature management. The farmer has an important role to play in this regard, as a lot of land needs to be grazed in order to preserve its natural value. In this situation good results depend on backing from both farmers and the local community.

Good results depend on support from both farmers and the local community.





2. A Green Map of Denmark will provide a clear direction for Danish nature

With a long-term vision for natural Denmark, three focus areas, and a number of new initiatives, the Government is setting a clear direction for nature and countryside policy in the future.

A new Green Map of Denmark will act both as a strategic framework for nature and countryside policy and as an actual map. As a strategic framework, the Green Map of Denmark will contribute to targeting ongoing and new initiatives on the particular areas where they will have the greatest impact. As a map, the Green Map of Denmark will show where ex isting valuable nature is located and where new natural areas that could create an interconnection between ex isting natural areas could be located – in the same way as we have a map of the rail network and the roads between our towns.

In other words, the Green Map of Denmark will form the basis for developing existing natural areas and preserving current biodiversity by prioritising locations for new natural areas. This will mean that, for the first time, Denmark will have a specific and comprehensive national plan for Danish nature.

By gradually establishing the new natural areas set out in the Green Map of Denmark, we will ensure that our most valuable natural habitats do not become isolated islands, but instead are gradually interconnected to facilitate the dispersal and movement of wild animals and plants. This will contribute to ensuring healthy populations and the survival of species.

The Green Map of Denmark will provide a comprehensive overview of both existing and potential new natural areas so that all citizens can contribute to

focused nature initiatives. The central government, municipalities, farmers, organisations, foundations, and everyone else can use the map when planning new natural areas and thereby ensure maximum benefit from initiatives. Unlike any currently available tools, the map will therefore serve as a kind of green compass that gathers existing initiatives and stakes out a common way forward

With the Green Map of Denmark, the Government is also pursuing the EU target to halt the loss of biodiversity by 2020.

Synergistic effects will also be exploited when establishing new natural areas, for example reduced emissions of greenhouse gases, cleaner aquatic environments, CO2 storage in the soil, better recreational opportunities and improved conditions for storing water after extreme rainfall.

Which kinds of natural area should we preserve and develop in a Green Map of Denmark?

Existing valuable natural areas are included in the Green Map of Denmark, and the Natura 2000 sites will form the backbone of the map. The other natural areas to be included in the Green Map of Denmark will depend on an evaluation of municipal planning: conservation areas, nature and wildlife reserves, sand dune conservation areas, large forests and nature protection areas. National parks will obviously also be shown on the map.

How will the Green Map of Denmark become a reality?

In Denmark we have a long and good tradition of local solutions. The Green Map of Denmark will build further on this tradition. For this reason, the municipalities will be tasked with designating areas on the Green

A Green Map of Denmark will ensure that our most valuable natural areas are interconnected to facilitate the dispersal and movement of wild animals and plants.

Map of Denmark. The municipalities' local knowledge will ensure that nature initiatives remain focused on sites with valuable natural habitats, and with local support.

The municipalities' designations on the Green Map of Denmark will be based on a common base map and common criteria. Areas on the Green Map of Denmark will be included for the first time in municipal plans in 2017. Thereafter the Map will be gradually refined and implemented up until 2050.



THE GOVERNMENT WILL

- task the municipalities with designating areas on a Green Map of Denmark in their upcoming municipal plans in 2017.
- provide a new collective basis for the map a digital nature map for the work of the municipalities on designating areas on the Green Map of Denmark. The digital map will include a new map of biodiversity showing the most important habitats for endangered and vulnerable plant and animal species including those outside the Natura 2000 sites.
- allocate DK K 20 million to pilot projects that will start implementing the Green Map of Denmark in cooperation with municipalities, foundations, etc.
- target the government's own initiatives on the basis of the Green Map of Denmark. The majority of the Ministry of the Environment's land is subject to national or international nature protection and will thereby form part of the backbone of the Green Map of Denmark.

THE GREEN MAP OF DENMARK WILL CONTRIBUTE TO:

Better natural habitats and more space for wild animals and plants: Our valuable natural habitats must not be small, isolated islands. More coherent nature will make natural habitats more robust and contribute to halting the loss of biodiversity.

Green and cost-effective adaptation to climate change:

Better and more robust natural habitats and more closely interconnected nature is one of the most effective and cost-effective ways of providing better opportunities for animals and plants to adapt to climate change. It is far more cost-effective to utilise nature's ability to cope with climate change than to invest in technical solutions such as bigger drains and dams. At the same time, many types of natural habitat contribute to reducing greenhouse gas emissions.

A wealth of nature experiences: Initiatives to protect nature must also benefit the opportunities of individuals for outdoor activities and exercise. Nature outside our windows is valuable to people and businesses alike.

Fulfilment of international commitments: Better and more interconnected nature will contribute to halting the decline of biodiversity and to Denmark's fulfilment of the EU's and UN's biodiversity targets.



A BRIEF DESCRIPTION OF THE MAPS

The Green Map of Denmark will become the master plan for Danish nature. It will show both existing natural areas and the locations where the municipalities have planned new nature areas to connect existing areas. The Green Map of Denmark will be gradually implemented through more targeted nature management, the establishment of new wetlands, more afforestation, nature restoration, new national parks and restoration of watercourses.

The Nature Map is a digital collection of maps with several layers. The Nature Map contains a number of existing maps – including the Danish Nature Agency's maps of existing natural areas, the Danish AgriFish Agency's High Nature Value map and a map of carbon-rich low-lying areas. The municipalities can use the Nature Map when planning for the Green Map of Denmark

The Biodiversity Map is a new map layer providing detailed knowledge of where Denmark's Red List species and other endangered animal and plant species live. It also shows where habitats with the highest quality of nature are found.

AREAS IN THE GREEN MAP OF DENMARK

The specific, internationally protected natural environments – the Natura 2000 sites – and other existing valuable natural habitats will be the key areas in the Green Map of Denmark. New conservation areas and Danish nature reserves may also be included in addition to these.

New conservation areas will create large interconnected natural habitats

Existing and new conservation areas and listed areas will be included in the Green Map of Denmark. The Government attaches great importance to continuing and focusing conservation work. The action plan for nature conservation areas (November 2013), prepared by the Danish Nature Agency, Local Government Denmark and the Danish Society for Nature Conservation defines a common direction for future conservation measures. One of the main objectives is to create larger, interconnected natural habitats, for example by conserving smaller areas. Another objective is the conservation of Denmark's important natural treasures. The Ministry of the Environment is specifically working on listing Himmelbjerget and Dyrehaven which are two of the country's biggest natural attractions. This will enhance the protection of these national nature icons.

Danish nature reserves will be on the Green Map of Denmark

Nature reserves, which are areas where the natural environment is of particular regional or local importance and which have good outdoor recreational opportunities, can make a considerable contribution to the Green Map of Denmark. The municipalities may therefore include nature reserves in their designation of areas on the Green Map of Denmark – along with a number of other valuable natural areas. The Danish Outdoor Council has developed a labelling scheme for Danish Nature Reserves. Areas where the natural environment is of particular regional or local importance and that have good outdoor recreation opportunities may be granted nature reserve status following an application by the municipality.

The nature reserves will spotlight the natural treasures of municipalities and contribute to coordinated planning and development which integrates improved quality of nature and recreation. Local support and ownership is of great importance.

The nature reserves are rooted in the municipalities as part of their local development plan or as a supplement to it. Designation as a nature reserve will not imply legislation that will lead to new restrictions or limitations for landowners and residents. Any initiatives on private land will only be taken on the basis of voluntary agreements.



FOCUS AREA: MORE AND BETTER INTERCONNECTED NATURE

It is expected that approx. 25,000 hectares of new nature areas will be established by 2020.

The new nature areas will contribute to more cohesive, better interconnected nature, a reduction in greenhouse gas emissions, prevention of the consequences of climate change and better recreational opportunities for everyone.

The new areas will be financed by both national and EU sources – mainly the Danish Nature Foundation and the Rural Development Programme for 2014-2020. The effects of this focus area are based on a provisional allocation of the Rural Development Programme's funds for 2016-2020 and are pending the establishment of initiatives in the next water and nature management plans.

Expected effects of the focus area:

- Approx. 8,000 hectares of wetlands will reduce nitrogen and phosphorous discharges into the aquatic environment. This will contribute to better conditions for wild plants and animals in both the aquatic environment and adjoining areas.
- Approx. 4,500 hectares of carbonrich lowlying farmland will be redesignated as nature areas in order to increase biodiversity and reduce greenhouse gas emissions and nitrogen leaching.
- More robust and interconnected nature areas of approx. 1,300 hectares of the already protected Natura 2000 sites to benefit a large number of both endangered and common plant and animal species.

- Approx. 3,400 hectares of new forest both stateowned and private forest with public funding.
- Approx. 5,000 hectares of new nature areas through the Danish Nature Foundation.
- Approx. 1,500 hectares of new nature areas through green climate adaptation projects. The opportunities for waste-water treatment companies, for example, to integrate recreational and nature considerations into specific climate projects have been considerably improved as a result of new legislation.
- Approx. 600 hectares of new nature areas through new EU LIFE projects that create more coherent and better interconnected nature areas and ensure synergistic effects with, among other things, water and climate initiatives.
- Approx. 1,000 hectares of new nature areas and a better aquatic environment as a result of watercourse restoration projects.

FOCUS AREA: STRENGTHENED EFFORTS FOR PROTECTING WILD ANIMALS AND PLANTS

Varied and diverse natural habitats can contribute to halting the loss of biodiversity and the deterioration of plant and animal habitats. The decline in biodiversity must be halted by 2020.

Expected effects of the focus area:

• Natural assets will be safeguarded and increased by approx. 125,000 hectares – including through a new ban on spreading fertiliser and using pesticides on approx. 35,000 hectares of meadow, coastal meadow, heathland, grasslands and other protected types of

natural environment in accordance with Section 3 of the Protection of Nature Act. In addition, it is expected that conservation management of approx. 90,000 hectares of open natural habitat on Natura 2000 sites will be implemented.

- A contribution to preventing decline in species and habitats covered by the internationally protected Natura 2000 sites both on land and at sea. In addition, continued focus on conserving natural treasures and establishing new national parks.
- Good conditions in 1,600 2,200 km of watercourses in order to improve the living conditions for wild animal and plant species in lakes, watercourses and coastal areas.
- Biodiversity in the sea and coastal waters will be increased by protecting existing stone reefs and bubbling reefs and establishing a new stone reef.
- Natural assets of approx. 7,000 hectares of Danish forest will be increased primarily forests within Natura 2000 sites. This will be achieved, for example, by nature friendly forestry with native species, grazing forest, more dead wood and conservation of old trees, combating invasive species and encouraging species covered by the Habitats Directive.
- More old trees and more dead wood in the stateowned forests, as old trees and wood on the forest floor contain a variety of fungal and insect species, many of which are endangered in Denmark.
- The nutrient and pesticide load on the natural environment will be reduced by 2020.

FOCUS AREA: IMPROVED SENSE OF COMMUNITY THROUGH NATURE EXPERIENCES AND OUTDOOR ACTIVITIES

The natural environment needs to develop in a sustainable manner and for the benefit of people's well-being up to 2020. The objective is to provide greater opportunities to experience and use natural environments.

Expected effects of the focus area:

- In 2020, nature will host 120 million visits from Danish adults.
- More and better opportunities for local outdoor activities in urban areas and in the country also for socially marginalised members of society to enjoy nature to a greater extent.
- More and better opportunities for outdoor recreation that will arouse curiosity and delight and thereby encourage more children and adults learn from and take care of nature, such that both mental and physical public health are enhanced.
- By 2020, there will be more partnerships and new forms of cooperation to develop outdoor activities so that more children, young people, adults and the elderly take an interest and participate in nature management and outdoor activities.
- Greater utilisation of the potential of outdoor recreation, so that the tourist industry is strengthened and more jobs are created.
- Increased knowledge about nature and biodiversity among children and young people.







More and better interconnected nature



1 A NEW BIODIVERSITY MAP WILL ENSURE BETTER NATURE PLANNING

The Government has provided a new nationwide digital biodiversity map. The Biodiversity Map provides detailed information about the populations of endangered and other vulnerable species (Red List species) such as fungi, butterflies, amphibians and birds as well as an overview of the prevalence of areas with a high quality of nature, areas where natural habitats are continuous and areas of great natural potential.

The objective is to focus nature management on those areas where efforts provide the greatest benefit – also outside Natura 2000 sites. The Biodiversity Map will thereby give the municipalities the best possible scientific basis for developing the Green Map of Denmark. The Biodiversity Map has been developed in cooperation with the University of Copenhagen and Aarhus University.

The Biodiversity Map will form a map layer within the Nature Map. The Nature Map therefore consists of a collection of digital maps and has been developed as the basis for the municipalities' designation of areas on the Green Map of Denmark. Hence, the Nature Map is a key tool for the Government, foundations and private landowners to prioritise future nature initiatives.

The Nature Map is a follow-up to the Commission on Nature and Agriculture's recommendation that nationwide mapping of existing high-value natural areas be carried out.

THE GOVERNMENT WILL

• make available a digital Nature Map containing a new Biodiversity Map with information about the location of habitats of endangered and vulnerable species. The map will form part of the basis for designation by the municipalities of areas on the Green Map of Denmark.

The Nature Map will be a key tool for the Government, foundations and private landowners to prioritise future nature initiatives.



THE DIGITAL NATURE MAP CONTAINS:

Maps of existing nature areas: The map shows where existing natural environments can be found, such as forests, Natura 2000 sites, sand dunes, Section 3 protected areas and areas for the re-establishment of wildlife reserves.

Planned nature: The map shows where the municipalities have designated areas in which the natural environment could benefit from being consolidated and developed – e.g. areas for wildlife corridors as well as afforestation and restoration of wetlands.

New Biodiversity Map: The Biodiversity Map provides detailed information about species on the Red List and other vulnerable species, as well as suitable habitats for these. Hence, the map provides information on where there is good quality nature and where vulnerable Danish species thrive – also outside Natura 2000 sites.

Climate change maps: In order to be able to prioritise initiatives for nature and create new nature areas where this will have the greatest long-term impact, the map data also contains a number of climate change maps from klimattilpasning.dk. The climate change maps show which areas are under threat from flooding and elevated groundwater levels.

OTHER MAP DATA ENABLING UTILISATION OF SYNERGY EFFECTS

- The Danish AgriFish Agency has provided an HNV (High Nature Value) map, which is used to target grant schemes in the Rural Development Programme 2014-2020 in which biodiversity is the main objective for areas with the highest quality of nature.
- The Danish Energy Agency has mapped carbon-rich low-lying areas. Redesignating carbon-rich low-lying farmland as nature areas is an effective way of reducing greenhouse gas emissions, while at the same time consideration can be given to biodiversity, groundwater protection and the aquatic environment.
- Other supporting maps: The basic map will also be developed as a dynamic tool so that a number of
 other supporting maps e.g. maps of groundwater surveys, national walking and cycling routes, and
 vulnerable and robust agricultural land can in the future be used to show potential synergistic
 effects.

The Government has contributed to the founding of the Danish Nature Foundation, which is an innovation in Danish nature and countryside policy.



2 ESTABLISHMENT OF THE DANISH NATURE FOUNDATION

By establishing the Danish Nature Foundation, the Government wants to create more nature in collaboration with the Danish people. The Foundation was established as an independent foundation to create new nature areas. This will benefit animals, plants, the environment and the climate and will provide people with good nature experiences.

THE GOVERNMENT

• is establishing the Danish Nature Foundation as a cooperation between the Government, the VILLUM FOUNDATION and the Aage V. Jensen Nature Foundation, all of whom will contribute funding for the Danish Nature Foundation's activities. The Government has allocated DKK 500 million to the Foundation as initial capital.

Natura 2000 sites will form the backbone of a Green Map of Denmark.

3 NATURE MANAGEMENT PLANS WILL CREATE BETTER AND MORE INTERCONNECTED NATURE

Natura 2000 sites cover some of Denmark's largest and most valuable natural habitats and the Government will continue to protect these sites.

The Government will present the 2nd generation of Natura 2000 management plans for 2016-2021 before the end of 2015. The plans will also contribute to linking isolated, endangered and vulnerable natural habitats in the designated areas and thereby they will be the first step in the strategic development of the Green Map of Denmark.

The Rural Development Programme for 2016-2020 is expected to contain a number of grant schemes to support the Natura 2000 plans. The final allocation of funds is pending the final political decision, based on the actions established in the next water and nature management plans.

Natura 2000 sites will be crucial to Danish nature management in the years to come – in relation to prioritising specific nature initiatives in the sites and because they will form the backbone of the Green Map of Denmark.

Future efforts for creating a better natural environment will also be based on a forthcoming long-term strategy for the development of the Natura 2000 sites up to 2050. A long-term strategy will be a key tool in a targeted effort to halt the decline of biodiversity and reconcile the expectations of interested parties.

FACTS ABOUT NATURA 2000 SITES

Natura 2000 is a network of special nature protection areas in the EU. They have special natural conditions which have qualified for designation as Special Areas of Conservation and Special Protection Areas under the provisions laid down by the EU directives. These sites must be managed for conserving and protecting natural habitats and wild animal and plant species that are rare, endangered or characteristic in the EU countries.

In Denmark, 252 Natura 2000 sites have been designated. In total, they constitute more than 9% of the land area – equivalent to Funen and surrounding islands – and a total of 18% of the Danish marine area.

The Government establishes an objective and a timeframe for initiatives in each individual Natura 2000 site.

- manage and expand natural habitats through voluntary schemes to benefit a great number of both endangered and common plant and animal species. The expected effect is that approx. 1,300 hectares of natural habitat will become more robust and interconnected.
- implement management of an expected 90,000 hectares of open habitats with mowing and grazing, primarily within Natura 2000 sites.
- increase the nature value of approx. 7,000 hectares of Danish forest, primarily within Natura 2000 sites, for example by close-to-nature forestry with native species, grazing forestry and by leaving more dead wood in the forests.
- prepare a long-term national strategy for achieving a good status for EU protected species and habitat types by 2050.
- present proposals for specific initiatives for Natura 2000 sites before the end of 2014.



4 MORE FOREST IN DENMARK

Government afforestation is often carried out in collaboration with municipalities and water companies and by the Government buying up agricultural land and planting new forests close to urban areas.

The first Government afforestation project near an urban area was Vestskoven at Albertslund. This was initiated in 1967 and is now almost finished, with a total of 1,400 hectares forest and nature area for everyone to enjoy.

Today, the Ministry of the Environment has approx. 25 projects underway to establish state-owned forests on agricultural land close to urban areas. Some examples are Drastrup Forest at Aalborg, True Forest at Århus, Elmelund Forest at Odense, Himmelev Forest at Roskilde and Greve Forest at Greve. The projects are being implemented through the purchase of agricultural land with co-financing from water companies or municipalities and subsequent conversion to forest and natural habitats.

In 2012 and 2013, funds were allocated to plant more than 700 hectares of new state-owned forest.

Many of the forests that we consider old forests today, and where there is considerable biodiversity, were established as a result of afforestation on fields and moors just 100-200 years ago. A good example is Tisvilde Hegn in North Zealand.

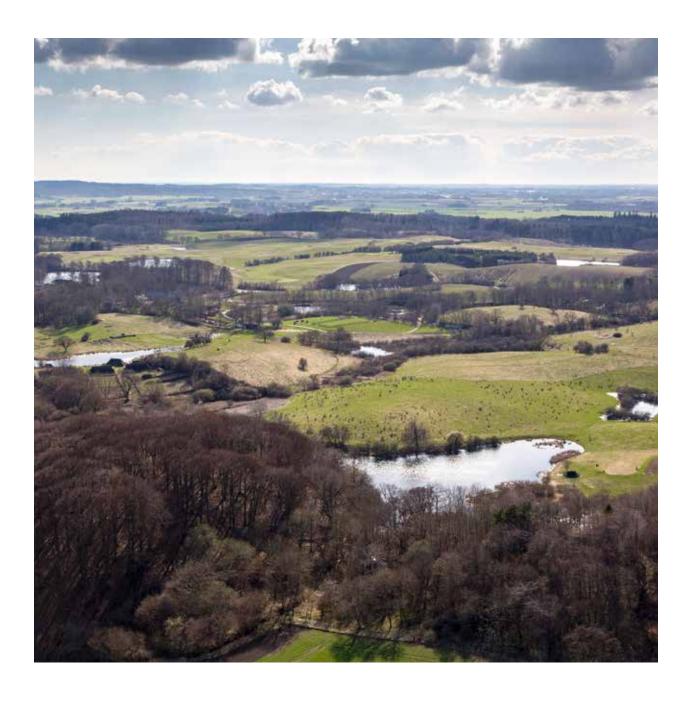
New forests close to urban areas bring the residents closer to nature and nature closer to the residents by connecting them to distant forests and natural habitats. A study by the Economic Council (2014) shows that new forests close to towns have great socioeconomic

value. The economic value of outdoor activities in the new forests established by the Ministry of the Environment averages DKK 37,000 per hectare per year.

Since 1998, the Ministry of the Environment and Danish water companies have been working together to establish new state-owned forests in important water catchment areas. The Ministry for Food, Agriculture and Fisheries has contributed to this collaboration. Detailed groundwater mapping of the entire country is currently being completed. The municipalities will subsequently prepare or revise existing action plans for groundwater protection—in collaboration with the water companies in particular—to ensure that that Danish groundwater is protected in the best possible way.

The planting of new forests not only has a positive effect on the groundwater. Forests also bind ${\rm CO}_2$ and can reduce the risk of flooding because forests retain rainwater. Forests also filter air pollution, reduce nitrogen and phosphorous discharges to the aquatic environment and protect many ancient monuments. In addition, wood is used in industry and as biomass in energy production. New state-owned forests provide many free opportunities for jogging, hiking and mountain biking, sheltered overnight stays, mushroom picking etc.

- allocate DKK 30 million to plant new state-owned forests with the multiple aim of connecting natural habitats, contributing to climate protection, protecting drinking water and creating new and better nature experiences, including forest near urban areas.
- establish approx. 2,800 hectares of private forest on agricultural land through voluntary grant schemes.



LIFE projects

The LIFE programme is the EU's environment and climate programme. The EU provides grants of 60% of expenditure to specific projects. The applicant country covers the remaining 40% itself. The projects are carried out as a collaboration between governments, municipalities, private landowners and other stakeholders.

5 TWO LARGE NATURE PROJECTS TO ESTABLISH BETTER PROTECTION OF NATURE AND CLIMATE

A nature project and a climate project are being carried out under the EU LIFE programme. Both projects will establish more, and more coherent natural habitats and support both water and climate measures.

The starting point for an integrated LIFE nature project is that a number of nature projects are carried out within a large coherent geographical area. In the project area, which is expected to cover a region, it is intended to implement the 2nd generation Natura 2000 management plans on the basis of a holistic approach. Focus will be on restoring valuable and rare nature and creating interconnections between valuable natural habitats that are currently separated. In addition, resistance to external influences will be established in the natural habitats.

The starting point for a LIFE climate project is that a number of sub-projects are carried out within a large project area with focus on 1) wetlands that retain water, nutrient salts and pollutants, 2) wetlands that reduce flooding of low-lying towns and highly fertile soil, and 3) controlled flooding of forest and low-lying areas that retain water in extreme weather situations. If, for example, the project concerns the threat of flooding of valuable coastal meadows in a Natura 2000 site as a result of sea level rise, then considerable synergy effects will be ensured between climate change adaptation and nature management. LIFE climate projects may also focus on reducing emissions of greenhouse gases.

- prioritise national funding of DKK 48 million for implementation of two LIFE projects with additional 60% EU co-funding. The following two projects are involved:
- implementation of the LIFE climate project for future-proof climate change prevention and adaptation. The project may, for example, deal with the threat of flooding of valuable coastal meadows in Natura 2000 sites when the sea level rises.
- implementation of the LIFE nature project for coherent nature and improved quality of nature. A specific nature project will be carried out in a large geographical area, where synergistic effects can be achieved with, for example, water and climate measures.



6 A CLEANER AQUATIC ENVIRONMENT

Denmark is a country with a long coastline and many lakes and rivers. These natural habitats play an important role in the overall Danish natural environment. At the same time, the major part of the Danish land area is occupied by cultivated land fertilised with nitrogen and phosphorous, some of which ends up in the aquatic environment. This may result in the growth of algae, oxygen depletion and a decline in the number of wild plant and animal species.

According to the EU Water Framework Directive, Member States must ensure that groundwater, lakes, watercourses and coastal waters meet the environmental objective of "good status". Good ecological conditions are synonymous with a rich plant and animal life

The 2016-2021 river basin management plans will ensure that measures are established in order to meet these objectives.

The Government has allocated DKK 10 million to a special initiative for large Danish lakes in addition to those already included in the river basin management plans for 2010-2015. The objective is to establish better conditions for biodiversity and better opportunities for swimming.

THE GOVERNMENT WILL

• establish wetlands in agricultural areas to reduce the leaching of nitrogen and phosphorous into the Danish aquatic environment and thereby prevent algae growth and oxygen depletion, as well as establishing better ecological conditions for wild plant and animal species. It is expected that approx. 8,000 hectares of new wetlands will be established. A decision on the initiative will be made in connection with the adoption of the river basin management plans.

- present other initiatives for reducing the leaching of nutrients to the aquatic environment, ensuring the quality of the groundwater and treatment of waste water.
- restore large Danish lakes where there is a special need as a result of nutrient leaching.

FACTS ABOUT RIVER BASIN MANAGEMENT PLANS FOR 2016-2021

The Ministry of the Environment had to prepare proposals for river basin management plans by 22 December 2014. These proposals describe the environmental objectives for lakes, watercourses, coastal waters and groundwater, and the plans will contain a description of the measures needed in order to meet these objectives.

The objective of the plans is to ensure good status in the aquatic environment. Although there has been a slight improvement in the status of water bodies, the latest analysis from 2014 shows that the majority of such water bodies will not meet the objective of a good status by 2021 unless further measures are established.

In connection with the proposals for the Danish river basin management plans, the Ministry of the Environment will review the need for measures in relation to lakes, watercourses, coastal waters and groundwater.

As regards improvement of the physical conditions in watercourses, the Government allocated a provisional budget of DKK 696 million in spring 2014. It is expected that this budget will make it possible to ensure that the objectives are met in at least a further 1,600-2,200 km of watercourses. Together with the water councils, which include agricultural organisations and green organisations, the municipalities will prepare proposals for measures to improve the status of the watercourses. These proposals will form part of the Government's final proposal for a programme of measures for watercourses.

Redesignating carbonrich lowlying farmland as nature areas is a good example of how climate, nature and environmental policies can be combined.

7 NEW NATURE TO BENEFIT BIODIVERSITY AND CLIMATE

With support from a large majority in the Danish Parliament, the Government has decided to redesignate carbonrich lowlying farmland as nature areas.

The objective is to recreate or improve nature areas and reduce emissions of greenhouse gases from farming on carbonrich lowlying areas. There will also be potential synergies related to reduced discharges of nitrogen and phosphorous into watercourses, lakes and inlets as well as increased biodiversity.

Today, a number of lowlying areas are farmed and these are kept dry by means of drainage and pumping away naturally inflowing water. If drainage and cultivation of these areas ceases, richer plant, bird and animal life can be achieved alongside a reduction in nitrogen leaching.

The scheme means that farmers who have agricultural areas with carbonrich soils can obtain a grant to permanently take such areas out of cultivation. The scheme is voluntary and the landowner will receive compensation for reduced earnings. In the future, the landowner will not be able to plough, spread fertiliser or use pesticides on these areas. Instead, extensive cultivation will be possible – e.g. mowing and animal grazing. Drains will also be removed to restore the natural water level. The scheme will also be able to finance works to restore natural water levels.

The redesignation of lowlying farmland in river valleys will also contribute to climate change adaptation, because these areas can absorb and retain great quantities of water in times of extremely heavy rainfall. This is why the scheme is a good example of how climate, nature and environmental policies can be combined.

- redesignate approx. 4,500 hectares of carbonrich lowlying farmland as natural habitats
- include mapped carbonrich lowlying areas in the map data for designation of areas on the Green Map of Denmark

The presence of internationally and nationally important natural habitats, landscape and cultural sites is decisive for establishing a Danish national park.

8 NATIONAL PARKS WILL CONTINUE TO BE BEACONS FOR THE NATURAL ENVIRONMENT

There are currently four Danish national parks – Mols Bjerge, Skjoldungernes Land National Park, Vadehavet (Wadden Sea) and Thy. The Government will work towards the establishment of a total of five national parks.

The Government approved the Skjoldungernes Land National Park at the beginning of 2015. The national park around Lejre and Roskilde Fjord includes the fiord, large forests and spectacular landscapes with several large estates. This fourth Danish national park is the first national park on Zealand.

The presence of internationally and nationally important natural habitats, landscape and cultural sites is decisive for establishing a Danish national park. In addition to Natura 2000 sites, the national parks also include other natural assets and landscapes of national importance, some of which are covered by Section 3 of the Protection of Nature Act and/or under preservation regulation.

Inside the national parks, the national park foundations work to create and ensure larger interconnected natural habitats and landscapes to preserve and consolidate the quality and diversity of the natural environment as well as to ensure continuity and opportunities for free dynamics in nature. The work takes place through voluntary agreements. The protected natural assets in the national parks thereby become key elements in the Green Map of Denmark.

National parks develop nature through local joint ownership and voluntary projects that strengthen



awareness of and interest in the value of nature, for example through involvement in establishing and developing the national parks.

- continue to focus on establishing a 5th national park for example Kongernes Nordsjælland National
- investigate the opportunities and consequences of establishing a marine national park.
- strengthen information initiatives concerning the Danish national parks.



9 NATURE MANAGEMENT MUST BE AN ATTRACTIVE PROPOSITION FOR FARMERS

A strong nature and countryside policy should go hand in hand with sustainable and efficient agricultural production. That is why the Government wants to address the challenges faced by farmers when they want to carry out nature management projects with or without a grant. Therefore, the Danish Nature Agency, the Danish AgriFish Agency and the Knowledge Centre for Agriculture have drawn up an analysis of the challenges faced by landowners and keepers of livestock in nature management projects. For each challenge a suggestion is given as to how nature management can be promoted.

For example, the Ministry of Food, Agriculture and Fisheries has changed the regulations in connection with the new agricultural reform so that, from 2015, it will no longer be necessary to check for special plant species in grassy areas in accordance with the so-called plant list when applying for EU area support. From 2015, all species of grass, green fodder and naturally occurring herbs will, therefore, be allowed in eligible areas – including for example, common rush, stinging nettles and thistles. However, it will still be a precondition that the areas contain limited areas of trees, bushes etc.

One proposal for a new project is to establish a nation-wide scheme to borrow cattle, under which a farmer borrows 5-10 cattle for nature management purposes. Farmers may keep any resulting calves, while the loaned cattle are later returned to the Danish Nature Agency and can take part in new projects. The municipalities could be potential partners in this. The

Ministry of Food, Agriculture and Fisheries will investigate whether organic loan cattle stock could be established in order for existing and future organic farmers to also take part in the scheme.

Nature management of larger, interconnected areas

The Government wants to increase knowledge about existing opportunities for grants, regulations etc. among farmers in Natura 2000 sites that are particularly suitable for nature management projects. This kind of proactive and supportive measure could, for example, be applied by agricultural consultants or municipalities and could contribute to more farmers implementing nature management projects instead of traditional farming. Proactive and supportive nature management measures could also form part of the establishment of the Green Map of Denmark.

Green biomass from pastures and nature areas

The Government will investigate the potential for using the harvested biomass from some of the nature areas which are not currently subject to nature management in Danish biogas production. It could be a good idea to harvest the biomass from meadows that are clearly affected by drainage, land-use change, or that have a high nutrient content. Harvesting hay removes up to ten-times as many nutrients as grazing.

The Government has already initiated a number of bio-based solutions, which are described in the Government's growth plan for water, bio and environmental solutions. The aim is to implement technological solutions that can develop the economic feasibility of green biomass and ensure the sale of green biomass on market terms and at the same time benefit nature.

For 25 years, the Ministry of the Environment has had good experience from acquiring private land for nature management, forestry and outdoor activities through land consolidation.

The Government has also set up a bio-economic panel that will identify possibilities to promote the bio-economy.

An example of the promotion of green biomass is the partnership project, "Green Transition - Nature management as a line of business" in cooperation with the Danish Nature Agency, the Danish Agriculture and Food Council, the Danish AgriFish Agency and the Aage V. Jensen Nature Foundation. As part of the existing project, a sub-project, "From grass to gas" is planned and expected to run over a three-year period from 2014-2016. The project will attempt to bring together the entire chain: gathering extensively farmed (and wet) areas into larger operating units, promoting the development of suitable harvesting machinery, and sales to biogas plants. The project is a follow up to the Commission on Nature and Agriculture's recommendation that models and methods for effective production, harvesting, transport and sales of green biomass from existing pastures and natural habitats should be developed – e.g. for biogas production.

If the use of harvested biomass from some of the nature areas that require cultivation in biogas production proves successful, this could contribute to a significant improvement in the profitability of nature management projects in a large number of nature areas that are currently either not managed or are managed inadequately. This means that a successful pilot project with hay-making could lower the cost of nature management commitments that follow from the Protection of Nature Act and the Habitats Directive. A synergistic effect from harvesting biomass, particularly from low-lying areas (for example meadows in river valleys), is the removal of nutrients before they reach the aquatic environment.

After degasification in the biogas plant, the biomass can be used as fertiliser on intensively cultivated land. A further perspective for harvested biomass is the production of green fertiliser (from biogas plants) suitable for use in organic agricultural production – which is in short supply today.

Land consolidation

For 25 years, the Ministry of the Environment has had good experience from acquiring private land for nature management, forestry and outdoor activities through land consolidation. In many places this has led to solutions where agriculture, nature and outdoor activities are all catered for at the same time. Hence, land consolidation may also be relevant in the gradual implementation of the Green Map of Denmark.

At the moment, the large land consolidation effort is in connection with municipal establishment of wetlands. The Danish AgriFish Agency is in charge of land consolidation, as the Government buys land for land consolidation purposes. This is carried out in accordance with the Land Consolidation Act.

- investigate opportunities for proactive and supportive initiatives for farmers so that they can apply for grants for nature management of larger, interconnected areas across ownership boundaries.
- publish analyses containing solutions to the challenges faced by farmers when they want to implement nature management projects with or without a grant.
- establish a nationwide scheme for loaning cattle for nature management of open landscapes as well as forests as part of initiatives to implement the Green Map of Denmark.

• allocate DKK 2 million to a new information initiative "The farmer as an ambassador for nature", which is intended to encourage farmers to share responsibility for nature management. As an element in the information initiative, an app regarding protected habitats is being developed which will enable landowners, authorities and organisations to see whether an area is protected in accordance with the Protection of Nature Act (Section 3). The information will be based on the eight Nature Recommendations that ecologists, hunters, ornithologists, bee-keepers and researchers launched in June 2014.



Examples of LAND CONSOLIDATION - a tool for creating more natural environments and new wetlands

Close to Ulfborg in West Jutland, a new 179 hectare wetland is ready to be established. This will provide more natural habitats and a better aquatic environment. A land consolidation process has been carried out in preparation for the project.

Areas within the original 220 hectare project area were divided between 24 landowners prior to the land consolidation. Twelve full-time farms accounted for 80% of the area. The rest belonged to smaller land holdings that were usually leased out.

Eighty hectares of replacement land needed to be acquired, since ten landowners wanted to retain or increase the size of the area of their properties. However, there were also landowners who wanted to sell areas outside the project area – actually three-times as much as was needed. The challenge was to buy or barter the correct areas so that the position of the individual landowners could be improved, or at least maintained.

After two years' work and two land consolidations, the area is now ready for the establishment of approx. 179 hectares of new wetlands. A great deal changed along the way. The original sceptics were convinced. The original vendors did not manage to sell. Three landowners decided to keep their land and the original wetland project of 220 hectares had a corner cut off to accommodate the biggest landowner. Ownership of a total of 425 hectares changed hands at a value of just under DKK 50 million.

Stone reefs are the oasis of the seabed, providing the habitat for sea anemones, leather coral and abundant seaweed beds.

MORE AND BETTER INTERCONNECTED MARINE HABITATS

Marine animals and plants need space to develop. That is why we must ensure representative and coherent protected marine areas that cover the diversity of marine habitats.

Today, protected habitats have been designated within the marine Natura 2000 sites and these constitute approx. 18% of Denmark's marine area. A number of marine habitat types, such as stone reefs, sandbanks and bubbling reefs (made by gases leaking from the subsurface) as well as more coastal habitat types such as coastal lagoons and shallow mudf lats that are exposed at low tide, have been protected.

THE GOVERNMENT WILL:

- in 2015 and based on Denmark's Marine Strategy from 2012 present a programme of initiatives for the sea which will come into force in 2016. The programme of initiatives will contribute to the achievement of a good environmental status in the Danish marine areas. The programme is part of the implementation of the EU's Marine Strategy Directive of 2008. The Directive's objective is to maintain or achieve a "good environmental status" in all European marine areas by 2020
- launch new Natura 2000 plans for public consultation regarding the 97 entirely or partly marine areas by the end of 2015 including the first Natura 2000 plans for a number of new areas in the North Sea.
- ensure continuous mapping of reef, bubbling reef and sandbank habitat types within Natura 2000 sites. The initiative began with mapping bubbling reefs in

the Kattegat. The mapping is expected to be concluded by the end of the 2nd planning period leading up to 2021

- introduce fishing regulations for reefs and bubbling reefs within Natura 2000 sites in the period leading up to 2021. In the stone reefs and the biogenic reefs, fishing by bottom trawling will be banned while bubbling reefs will be protected against both trawling and net fishing. The protection covers the reefs and a surrounding buffer zone, which in the Kattegat Strait is about 240 metres.
- designate areas in the Kattegat that will be protected against physical impacts (bottom trawling, recovery of minerals etc. and disposal of dredgings). The soft sea floor is home to vulnerable species that are to be protected in accordance with the EU's Marine Strategy Directive for example sea pens, which are a type of luminous coral. The designation of protected areas will contribute to achievement of the targets in Denmark's Marine Strategy from 2012
- implement the EU's Directive on Maritime Spatial Planning in Danish legislation by 2016 and prepare a plan for using marine areas by 2021. The adoption of Danish legislation in the area will establish a framework for general, carefully considered marine planning in Denmark. There is the opportunity for long-term and holistic planning across the individual sectors to improve future planning and to avoid potential conflicts over use of the sea. Marine planning is expected to encourage sustainable growth in maritime activities, while at the same time protecting marine resources.



11 STONE REEFS WILL ENRICH MARINE LIFE

The Government has allocated DKK 10 million to restoring a stone reef in the sea. Stone reefs are the oases of the sea bed and the nature in reefs is particularly diverse, with a wealth of animal and plant species including sea anemones, leather coral and abundant seaweed beds with green, brown and red marine algae.

The stone reefs have been the subject to massive exploitation, partly due to the removal of rocks and boulders from the seabed for the construction of piers and coastal protection. Today, the removal of rocks and boulders from the seabed is banned, but stone reefs remain a rare habitat type in Denmark and the biodiversity of species, particularly species associated with cavity-forming stone reefs, is in danger of disappearing.

The stone reef will support efforts to create a more robust natural marine environment. This restoration will primarily take place in a Natura 2000 site where the reef will be protected against disturbances.

The restoration of stone reefs in Denmark will generally be beneficial for the biodiversity of both marine and sea inlet systems. If a stone reef is restored in an inlet area, this could increase biodiversity in inland waters – including better growth conditions for fry – and the potential effect of the stone reef on reducing damage from nutrients in the marine environment could be further investigated.



REGERINGEN VIL

• restore a stone reef in the sea or in an inlet system in order to contribute to improving conditions for animal and plant life on the sea bed. DKK 10 million has been earmarked for the project.



Strengthened initiatives for wild animals and plants



WE MUST PROTECT VALUABLE NATURE AREAS BETTER

Today, approx. 400,000 hectares are covered by heaths, moors, grassland, freshwater meadows and coastal meadows which are protected under Section 3 of the Nature Protection Act. This is equivalent to less than 10% of Denmark's total area

These areas are important habitats for a large number of wild animals and plants. However, in many places, the status of nature has been impacted by excessive discharges of nutrients and pesticides, and at the same time traditional farming using grazing and mechanised hay-making has ceased.

The Government will strengthen the protection of the nature areas covered under Section 3 of the Protection of Nature Act by banning the use of pesticides and fertiliser in these areas. The measures will be based on updating and recording the Section 3 areas in Denmark.

A ban will improve areas as habitats for a large number of species and will, therefore, contribute to meeting the EU objective of halting the decline in biodiversity by 2020. A ban will also contribute to addressing the commitments under the Natura 2000 Directives, other international nature conventions, and the EU Water Framework Directive.

The Government will also increase the recommended fines for infringements of the Protection of Nature Act and ensure better protection of Section 3 nature in urban zones and summer cottage areas.

THE GOVERNMENT WILL

- impose a ban on using fertilisers and pesticides on protected nature areas (Section 3 protected areas) by amending the Protection of Nature Act.
- change applicable regulations in the Statutory Order on Nature Types so that valuable nature areas in towns and summer cottage areas will be better protected in the future and so that this protection becomes more uniform and simple.
- introduce guidelines for the levels of fines by amending the Protection of Nature Act, which will contribute to higher fines for infringements of nature protection.

ORGANIC FARMING STRENGTHENS BIODIVERSITY

The Government has a target to double the area of organically farmed land by 2020. Today, this area comprises almost 7% of agricultural land.

Organic agricultural production cultivates the soil less intensively and without using pesticides, and thereby combines agricultural production and consideration for nature. This benefits both biodiversity and protection of drinking water.

Organic farming also reduces the negative impact of nutrients and pesticides on the natural environment. As a consequence wild plants can grow in fields and this benefits fauna and its associated food chains. Along the windbreaks around organic fields there are a lot more flowering plants with a longer flowering season than in conventional fields. Hedgerows on organic farms are therefore a better food source for wild bees and butterflies. Organic farming contributes to better habitats and conditions for the dispersal and movement of plant and animal species.

EFFECTIVE AND TARGETED INITIATIVES FOR WILD ANIMALS AND PLANTS

The Government will prepare a long-term national plan for Danish animal and plant species.

An overall plan for national species management will not be a plan for specific species but rather general guidelines and principles for species management. The species management plan will provide the basis for prioritised funding for species management aiming at maximising the biological and social effect.

For several years, goal-oriented management plans have been prepared for a number of species, however as the natural environment is under increasing pressure and will be affected by climate change, there is a need to analyse the challenges and ensure effective and well prioritised initiatives for species in the future.

- prepare a national plan for the management of Danish animal and plant species that focus on and prioritise long-term initiatives.
- implement specific initiatives for the northern birch mouse, the natterjack toad, the tree frog and other Annex IV species, based on existing management plans.
- implement specific projects that improve the conditions for insects that play an important role as pollinating agents, e.g. the honey bee.



Knowledge of endangered and vulnerable species and their habitats can be used to focus management on these areas and enhance conditions for a number of other species.

4 A HELPING HAND FOR THE MOST ENDANGERED SPECIES

The Government wants to make a targeted effort for a number of Danish species that are especially vulnerable. Clearly, this is impossible without knowledge about their specific presence. Endangered and vulnerable species are often a good indicator of the quality of a natural habitat. Specific knowledge of where these species are found will therefore be used for geographic focus of funding. Management measures for these areas will at the same time benefit a number of other species.

With a new biodiversity map, funding earmarked for specific initiatives for endangered and vulnerable species, a new status assessment tool for rare and vulnerable species in Natura 2000 sites and a general national plan for managing our species, specific initiatives will now be more effectively implemented for many of the most endangered species in Natura 2000 sites and in other biodiversity hot spots. For example, specific initiatives to improve habitats for endangered butterf lies in forests with open areas will be implemented.

The Danish Hunters' Association is providing an organised initiative with the support of the Danish Nature Agency for individual species such as the hare and partridge. The hunters contribute to a considerable extent to direct preservation of nature to the benefit of endangered species. This is primarily via general nature management, the establishment of small biotopes in the form of open natural habitats, wind-breaks, planted areas, water holes, and forage fields in agricultural areas and in forests.

Similarly, anglers also often provide direct nature management by establishing spawning beds in watercourses, shade-providing vegetation along watercourses, as well as breeding and stocking with fry to support, for example, the salmon population.

THE GOVERNMENT WILL

• allocate DKK 10 million to a special initiative for endangered and vulnerable species. The projects will be implemented in cooperation with municipalities and green organisations and based on the new national species management plan and the biodiversity map.



15 EFFORTS AGAINST INVASIVE SPECIES NEED TO BE REINFORCED

As a continuation of its work on a strategy for species management, the Government will focus on efforts against invasive species. A number of animal and plant species are not part of indigenous Danish nature. A small number of these species are invasive species that endanger native species. This applies, for example, to plants such as the Japanese rose and giant hogweed and animals like the American mink and raccoon dog.

Hunters make a significant contribution to restricting invasive species. Controlling raccoon dogs and mink usually takes place in initiatives coordinated with the Danish Nature Agency, while the regulation of species such as gulls and geese that could damage field crops is regulated locally by hunters under licence from the Danish Nature Agency.

Giant hogweed can be controlled cost-effectively through grazing, for example with sheep. When this control method is chosen instead of chemical control, the area can be converted to organic farming.

A new EU regulation on invasive species contains provisions on prevention and extermination as well as bans on trade, transport and the keeping of certain invasive species in Denmark. The regulation also stipulates requirements for monitoring, analysis and prioritisation of spreading routes, the development of a control system and the restoration of ecosystems damaged by invasive species.

THE GOVERNMENT WILL

- strengthen initiatives against invasive species (including more hunting, registration and bans on trade) as per the new EU regulation on invasive species.
- focus efforts on the most important means by which invasive species spread into Denmark.
- continue to build on the existing efforts over many years to control invasive species, focusing on individual species. This applies, for example to regulations regarding control of giant hogweed and keeping raccoon dogs. In addition, the control of invasive species will be part of the work on the Natura 2000 plans.
- focus on intensifying initiatives against invasive species in cooperation with neighbouring countries and internationally. Denmark signed the UN Ballast Water Convention in 2012, which has the objective of reducing the spread of invasive species via ballast water from ships.
- prioritise Danish participation in the NOBANIS
 Network that ensures knowledge sharing regarding the spread and control of invasive species in Europe.
 Denmark hosts the secretariat function for NOBANIS.
- ensure synergy effects within the framework of Denmark's Marine Strategy for minimising the impact of invasive species.



46 A NEW NATIONAL FORESTRY PROGRAMME WILL STRENGTHEN BIODIVERSITY IN FORESTS

The Minister for the Environment will present a new national forestry programme by the end of 2014. The forestry programme will set the direction for Danish forestry policy in the future and continue the sustainable development of Danish forests. It will also focus on the fact that the primary operating target is for 10% of the total forest land to have biological diversity and variety of habitats by 2040.

Denmark was originally covered in forest and the Danish forests therefore contain important habitats for the original biodiversity. However, there are only a few ancient forests in Denmark, in which biodiversity has developed over a long period of time. Today, the majority of Danish forests are quite new, since about 200 years ago only 3-4% of Denmark had forest cover. The vulnerable biodiversity exists particularly in these ancient forests.

Since forests in Denmark hold the highest proportion of Red List species in relation to other habitat types, efforts for biodiversity are particularly important here. There is, however, a lack of information about where the most important forest areas are located. For the same reason, there is a risk that initiatives are not focused on the areas and instruments that will have the greatest effect for biodiversity.

In order to ensure effective and focused protection initiatives, mapping and recording of privately owned forests that are particularly important in terms of nature is being carried out. Focused protection of

these areas in private forests will be initiated on the basis of this work. This will be achieved by establishing more untouched forest.

Through active afforestation over many years, Denmark's forest area has been increased to 14% of the total area of the country. Many of the new forests were planted on heath and dune landscapes using introduced conifers for timber production. These forest lands are slowly being changed and developed into more diverse forest with more native tree species and will thereby have greater potential for accommodating many of the wild animal and plant species that are in decline in Denmark.

THE GOVERNMENT WILL

- launch a new national forest programme.
- carry out mapping and recording of forests that are particularly important in terms of nature on private property in order to ensure effective and focused protection initiatives.
- initiate protection initiatives on hot spots in privately owned forests through voluntary initiatives including protection as untouched forest. Special priority is on forest areas in the Green Map of Denmark.



MORE BIODIVERSITY IN STATE-OWNED FORESTS

The Government is strengthening efforts for biodiversity in state-owned forests and open natural habitats and thereby supports the national forestry programme.

The Government controls more than 230,000 hectares of forest and open natural habitats. The Danish Nature Agency's land will be actively involved in achieving the 2020 target of halting the loss of biodiversity. Land belonging to the Ministry of Defence will also contribute to achieving the target.

State-owned land already has high priority in the overall Danish nature protection measures. This applies to the approx. 200,000 hectares administered by the Danish Nature Agency, 35% of the total area of which is protected in accordance with Section 3 of the Protection of Nature Act and 10% of the forest area is designated for biodiversity purposes. This means that 70% of the country's untouched forest is located in the Danish Nature Agency's forests. A very large proportion of the state-owned natural habitats are included in Natura 2000 sites and are covered by special measures.

The Ministry of Defence owns approx. 33,000 hectares. This land is primarily used for military training and exercises and, at the same time, contains considerable nature assets. The land has been kept away from cultivation and infrastructure development over many decades, and thus preserves unique habitat types and rare plants and animals.

Almost half of the Ministry of Defence's land consists of internationally protected Natura 2000 sites. In addition, there are landscape listings and valuable nature covered by Section 3 of the Protection of Nature Act. The Ministry of Defence also regularly sets aside forest as untouched forest or other forest environments (forest meadow, grazing forest or areas with management of dead trees). Today the Ministry of Defence has 330 hectares of untouched forest. The Ministry of Defence's target is for a minimum of 15% of the Ministry's total forest land to be designated for these forest types by 2015. The target is 20% by 2018.

As regards the proportion of state-owned forest land actively managed, much consideration is given to protecting nature, for instance by not using pesticides or fertiliser. The objective is to manage the forest sustainably and holistically to combine aspects such as biodiversity, outdoor recreation and timber production.

The aim is to prioritise initiatives in state-owned forests in locations where it makes most sense to protect and improve conditions for endangered species and habitat types. Thus, these efforts will play a direct part in the establishment of the Green Map of Denmark.

The aim is to prioritise initiatives in state-owned forests in locations where it makes most sense to protect and improve conditions for endangered species and habitat types.



THE GOVERNMENT WILL

- allocate DKK 10.5 million to carrying out specific and focused initiatives to enhance biodiversity in the Danish Nature Agency's forests. The specific projects may cover broad diversity, rare and endangered animals and plants in forest meadows and clearings in forests. The projects will also contribute to implementation of the Green Map of Denmark.
- establish 500 hectares of untouched forest that will become biodiverse forest. Half will be financed by grants to private forests and the other half by ceasing forestry operations on land in the Danish Nature Agency's forests.
- carry out a study that will support systematic selection of forest areas that are particularly valuable in terms of nature in the Danish Nature Agency's forests, including untouched forest. With participation from professional environmental surveyors, the study will map and prioritise forest land to ensure focused initiatives in the future. The projects will also contribute to implementation of the Green Map of Denmark. DKK 3 million has been set aside for the study.

- perform an analysis of the Danish Nature Agency's forests in order to map out which species and habitat types play a special role in achieving the 2020 target of halting the loss of biodiversity, including where protection should be prioritised geographically and which initiatives are specifically required.
- establish more natural water levels in the Danish Nature Agency's forests, designate grazing forests and create more clearings to benefit biodiversity. There is particular focus on how the Danish Nature Agency's land will contribute to the establishment of the Green Map of Denmark. In order to create more clearings in the forest, special initiatives will be taken to protect and expand roadside areas.
- improve conditions for animals and plants in all the Danish Nature Agency's forests by designating five so-called trees for life per hectare (veteran trees) in cooperation with volunteers. The trees for life will be permanently protected so that they become very old and permanently house rare and endangered species. This concept was tested during the summer of 2014 in cooperation with the Danish Society for Nature Conservation.



Improved sense of community through nature experiences and outdoor activities 🗡



18 DENMARK'S FIRST NATIONAL **OUTDOOR RECREATION POLICY**

Adult Danish citizens account for more than 110 million visits to the Danish countryside every year. Children and teenagers also go to the countryside on many millions of occasions. This means that the countryside is probably by far the biggest tourist and leisure attraction for Danish citizens.

The Government's wish is that Danish nature be, at one and the same time, both used and protected so that people's opportunities for rich outdoor recreation are maintained and developed – in their everyday life and during holidays. It is a goal that Danes should be involved in overall efforts regarding nature, and knowledge about nature – especially for children and teenagers.

The Government intends to launch Denmark's first national outdoor recreation policy. More than 700 stakeholders have contributed to the policy – and many more have commented via the online Idéstorm campaign platform.

The outdoor recreation policy must be:

- Broad-based not least through joint ownership by all key stakeholders in the outdoor area.
- Targeted providing concrete direction for development through indicators.
- Balanced reflecting consideration for all the different interests in the area.
- Operational able to be translated into specific initiatives and partnerships.

The Government has already launched a number of initiatives in support of the forthcoming national outdoor recreation policy:

- Outside education project a cooperation between the Danish Ministry of Education, VIA University College and the Danish Ministry of the Environment. The project, which runs from 2014-2016, will spread outdoor schooling as a form of teaching to all schools in the country.
- Nature's friend a campaign promoting a positive attitude towards nature. The aim of the campaign is to show that everyone is entitled to have positive experiences of nature, while at the same time removing the (false) perception some people have that nature can be difficult to navigate.
- The national economic footprint of outdoor recreation – a research report from the University of Copenhagen. In June 2014 the University of Copenhagen published a survey of the national economic footprint of the Danes' outdoor activities in Denmark. The survey revealed that an average Danish family spends a total of nearly DKK 1,000 per month on outdoor activities. This corresponds to a collective expenditure by Danes of approximately DKK 29 billion (excluding food), and a national economic footprint of just over 1% of total national income (DKK 13 billion). Moreover, outdoor activities generate more than 28,000 full-time jobs in Denmark.
- Holiday packages for tourists to experience Danish nature. The reason for this initiative is that Denmark has lots of countryside and a large number of nature activities suitable for both Danes and foreign tourists. However, people are often unaware of exactly what experiences and activities are on offer, where they can find information and when they can take part.

The countryside is probably by far the biggest tourist and leisure attraction for Danish citizens.

- Cohesive work to develop cycle routes and to spread information about them. Since the establishment of the National Cycle Route Network in 1993, a number of cycling-based tourism projects have been implemented in Denmark. A feature shared by many of the projects is that they are rarely successful at the final but crucial step: Ensuring that visitors to the countryside can find information about the experience.
- The use of nature in social measures. Research has shown that nature can improve the lives of people suffering from physical or mental illness or in other ways have difficulties in their daily life. Therefore, focus will be on developing the opportunities in nature for these people.

THE GOVERNMENT WILL

• launch Denmark's first national outdoor recreation policy.





19 BRINGING NATURE INTO GARDENS

In order to engage in and create ownership of nature, for example among the many holiday cottage owners who are keen to promote nature, the Government will launch a campaign in cooperation with holiday cottage owners associations and the Danish Garden Society to provide inspiration and advice on allowing nature to thrive in holiday cottage gardens.

Holiday cottage gardens in particular are considered to have potential to increase biodiversity. For example the Serin, a Red List bird species, inhabits holiday cottage areas where a high density and diversity of many other bird species are also found.

THE GOVERNMENT WILL

• set aside DKK 2 million for dissemination efforts providing inspiration and advice on allowing nature to thrive in holiday cottage gardens.

20 LINKING DENMARK BY CYCLE ROUTES

Individuals should be able to reach important nature areas by bike, because cycling is such a common mode of transport in Denmark. Bicycles are also an important mode of transport for foreign tourists when on holiday in Denmark.

A network of cycle routes based on existing national cycle routes running through the Green Map of Denmark will make it more attractive to spend holidays in Denmark. The network will also support the use of nature by schools and contribute to an active and healthy lifestyle.

THE GOVERNMENT WILL

• support the establishment of a national network of nature cycle routes throughout the Green Map of Denmark. DKK 2 million has been set aside for the purpose. The project will be completed in collaboration with various foundations.



21 MORE PEOPLE VOLUNTEERING TO WORK IN NATURE

In 2013, the Government published a new charter for collaboration between the voluntary and public sectors. The charter is supported by the Government, NGOs, municipalities and regions. The charter will serve as a foundation for new partnerships and collaborations between voluntary organisations and public institutions throughout Denmark.

Today, volunteers already make a significant contribution for nature as well as for other people visiting the countryside. For example, this may involve voluntary work in a nature centre or a café at a nature reserve. Mowing hay meadows, monitoring bird populations or controlling invasive species are other tasks typically undertaken by volunteers.

On the basis of the Charter, the Danish Hunters' Association, the Danish Society for Nature Conservation, the Danish Ornithological Society, the Danish Outdoor Council and Danish municipalities have entered into agreements with volunteers on Danish Nature Agency land – for example in Store Lyngby Forest in North Zealand.

THE GOVERNMENT WILL

- continue the Green Partnerships fund and adjust the objective of the fund to support voluntary efforts and to promote the benefits in nature for the socially marginalised with funding of DKK 10 million.
- give volunteers more opportunities to work on state-owned land administered by the Danish Nature Agency, the Danish Ministry of Defence and the Danish Ministry for Food, Agriculture and Fisheries so that access to such areas takes account of other users and operations, and it ensures that volunteers can help in nature management and communication tasks.
- involve volunteers in improving the foundation for management of natural areas by public authorities, for example by letting volunteers contribute to nature monitoring efforts.

A network of cycle routes running through the Green Map of Denmark will make it more attractive to spend holidays in Denmark.





22 EVERYONE MUST HAVE THE OPPORTUNITY TO USE NATURE

All parts of society must have the opportunity to make use of and enjoy nature – this also includes socially marginalised groups.

The forthcoming national outdoor recreation policy prioritises easy access to outdoor activities in Denmark and that nature can be used as a social lever to enhance engagement and sense of community, educate and provide an opportunity for better health and quality of life for all Danes.

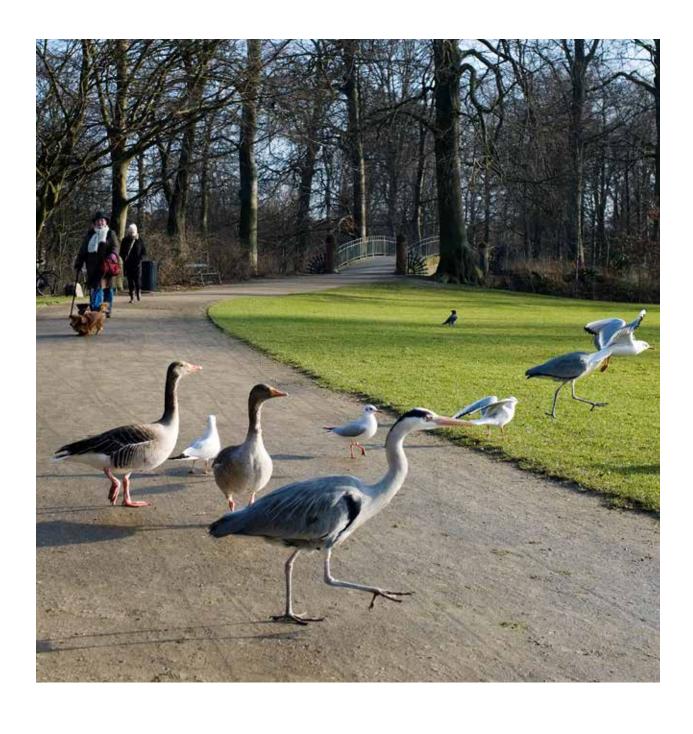
Two social initiatives have commenced as part of the development process for the Danish national outdoor

recreation policy. One initiative focuses on inclusion of maladjusted young people, by introducing them to nature and the countryside. The second initiative is about improving opportunities for outdoor activities among socially marginalised children and their families.

THE GOVERNMENT WILL

• launch a round of grants of DKK 5 million for increasing and enhancing opportunities for nature and outdoor recreation, including to ensure that the socially maginalised are also able to benefit more from nature.

All parts of society must have the opportunity to make use of and enjoy nature – this also includes socially marginalised groups.





4. Nature and countryside policy — also an international task

According to the Food and Agriculture Organization of the United Nations (FAO), 40% of the world economy is based on direct or indirect access to biodiversity, ecosystems and the benefits that nature provides. Denmark is dependent on its agricultural and fisheries resources. However, the world's poorest tend to be even more dependent on exploiting natural resources for food, medicine and fuel.

Nature takes no notice of national borders and neither do the consequences that follow from the loss of nature. The Government is therefore also working with visions and goals that extend beyond Denmark's borders. In both the EU and the UN, Denmark has endorsed a vision for 2050 that will protect and restore nature and biodiversity, create well-being and an opportunity for prosperity for the world's population as well as making our planet more resilient to change.

Nature and countryside policy in the EU $\,$

First and foremost the Government is actively working to develop and implement its nature and countryside policy in partnership with the other EU Member States. Comprehensive legislation in this area has been developed gradually over time. The Habitats Directive and Birds Directive are central to these efforts as they help to ensure uniform nature protection across the EU.

The aim of both directives is to ensure conservation and population growth for endangered and rare animals and plants in Member States. The two nature directives, together with the Water Framework Directive, the Directive concerning Environmental Assessment of Plans and Programmes and the Directive on Strategic Environmental Assessment, constitute the central framework for nature initiatives in the EII

In addition to this, the EU has adopted a biodiversity strategy for the period 2011-2020. This strategy makes it clear that the loss of biodiversity, and thereby loss of its benefits (so-called ecosystem services), has consequences for the environment, the economy and society as a whole. Together with climate change, biodiversity loss is the biggest challenge confronting the environment worldwide. The EU has set itself the goal of halting the loss of biodiversity and the deterioration of ecosystem services by 2020 and restoring them to the greatest possible extent, as well as increasing efforts to combat biodiversity loss in other parts of the world.

This will happen through initiatives to promote the development of green infrastructure, restore ecosystems and strengthen the sustainability of agriculture, forestry and fisheries in order to contribute to conserving and enhancing biodiversity.

The EU has recently reached agreement on the regulation of invasive species, which entails a common effort at European level against one of the threats to biodiversity in the Danish countryside and across the European continent as a whole.

The EU's 2020 biodiversity target is based on the realisation that biodiversity has significant economic value beyond its intrinsic value and the services it provides. This economic value of biodiversity is rarely reflected in the market. In 2014 a project was initiated to map Danish nature and to begin the process of assessing its status and economic value. The project represents Denmark's response to the EU Biodiversity Strategy, which recommends that each Member State prepare an inventory, assessment and valuation of its nature before 2020. Nature's services to society must

The UN Convention on Biological Diversity has three main objectives

- 1. Conservation of biological diversity at gene, species and ecosystem level.
- 2. The sustainable use of the components of biological diversity.
- 3. The fair and equitable sharing of benefits arising out of the utilisation of genetic resources.

therefore be systematically mapped and valued so that they can be incorporated in planning, economic calculations and national accounting.

The Government has initiated work on national green accounts, and this process includes identifying possibilities to incorporate ecosystem services. A pilot study focusing on ecosystem services in relation to water resources and policy-instrument effect measurement for the Government's climate plan has already been completed. Among other things, this documented the value of forestry ecosystems and their potential to mitigate climate change. Future work will address further opportuni-ties for including additional ecosystem services, for example those related to forestry and agriculture.

Global protection of biodiversity

The operational framework for global cooperation regarding the conservation of nature and biodiversity is the UN Convention on Biological Diversity (CBD). This Convention has been acceded to by virtually all countries in the world. The Convention on Biological Diversity has three main objectives:

- 1. Conservation of biodiversity at gene, species and ecosystem level.
- 2. Ensuring resources are used sustainably.
- 3. Establishing fair benefits-sharing with regard to the use of genetic resources.

In 2010, a new global strategic plan for nature and biodiversity was adopted along with 20 international targets (so-called Aichi Targets) to halt loss of biodiversity and ecosystems by 2020. Denmark is

working towards the Aichi Targets through the EU's biodiversity strategy.

One of the primary challenges facing the Convention on Biological Diversity concerns the mobilisation of resources in support of efforts to preserve biodiversity by developing countries. A target, endorsed by Denmark and the EU, is to double the flow of resources in support of efforts to preserve biodiversity by developing countries by 2015, and for resources to remain at that level until the end of 2020. This doubling is measured against the average resources supplied by the parties during the period 2006-2010.

For Denmark's part, assistance expenditure in direct or indirect support of the sustainable utilisation of natural resources and the protection of biodiversity averaged DKK 2.4 billion per year between 2006 and 2012. The Government has decided to maintain this level of assistance expenditure in its development assistance strategy.

Providing more resources to the global effort is not just about assistance passing from developed to developing countries. It is also about finding new ways to increase the focus on biodiversity and it is about identifying new opportunities for financing nature projects.

The Nagoya Protocol, which entered into force in October 2014, contains rules stating that companies which acquire genetic resources for research or manufacture in developing countries must obtain prior informed consent from the countries concerned and must also enter into agreements on benefits-sharing.



THE RELATIONSHIP BETWEEN BIODIVERSITY AND CLIMATE CHANGE

Biodiversity makes an important contribution to the fight against climate change and contributes to climate adaptation. For example forests and peat bogs retain large amounts of CO_2 , while lakes and other natural areas can likewise retain large amounts of water and thus mitigate problems associated with flooding after torrential rainfall.

In order to halt the loss of biodiversity, it is also important to avoid excessive climate change, as nature will have difficulty adapting to climatic conditions if they change at the pace and magnitude predicted by scientists. For example, researchers estimate that 30% of the world's mammal species could disappear by 2050, and that up to 70% of all species on the planet are at risk of extinction if temperatures rise by more than $3.5\,^{\circ}\text{C}$.

The Intergovernmental Panel on Climate Change (IPCC) published the second part of its Fifth Assessment Report in the spring of 2014. This IPCC publication further underlines that climate change affects a wide variety of animal and plant species. It is highly probable that climate change will alter habitats, causing local extinction of species and a consequent change in their distribution. The introduction and spread of invasive species is likely to increase in tandem with climate change. The Government is focusing on synergies between efforts in the climate area and protection of biodiversity.

Biodiversity and sustainable development

Efforts to conserve biodiversity and ecosystems are important with regard to combating poverty in developing countries. In many parts of the world, ecosystems such as forests provide the fundamentals of life for large human populations, and conservation of forest areas not only guarantees food resources, but also access to water and protection against soil erosion and flooding.

This close relationship formed the basis for the protection of biodiversity being included as one of the topics in the negotiations that are taking place at the United Nations regarding the form of global sustainability targets after current development targets expire in 2015.

The Government is working under the auspices of the UN to ensure that the post-2015 agenda provides stronger global protection of nature and the environment, and focuses on the Earth's carrying capacity, including sustainable use of the world's natural resources, as a prerequisite for continued development.

THE GOVERNMENT WILL

- follow up on the EU's Biodiversity Strategy through initiatives set out in the Danish Nature Policy and by ensuring national implementation of the EU's regulation on invasive species.
- actively participate in negotiations under the Convention on Biological Diversity regarding the mobilisation of resources.
- focus on integration of nature protection and biodiversity in climate-adaptation initiatives and in development plans and policies at both national and international levels.
- work in order that the conservation of biodiversity and natural resources is reflected in the UN's sustainability targets post 2015.
- continue to make an active contribution to implementation of the Nagoya Protocol on genetic resources and benefits-sharing and ensure rapid and effective national implementation of the rules.



5. Follow-up and implementation of initiatives

IMPLEMENTATION OF THE DANISH NATURE PLAN – OUR SHARED NATURE

The three focus areas in the Danish Nature Plan set the direction for targeted nature and countryside policy initiatives. The Government will support joint ownership and involvement in the specific initiatives to be implemented as a result of the Danish Nature Plan. Up until 2020 the Government will focus on initiatives that support the target of halting the loss of biodiversity.

The Government's focus is on involving citizens and organisations in the implementation of its nature and countryside policy and entering into partnerships with municipalities etc.

MONITORING AND ASSESSMENT

Biodiversity and the quality of nature is complex and constantly evolving. In some cases, it will be inevitable that some species of wild animal and plant will become extinct, while other new species will also appear. This is the consequence of climate change. There is also no single individual parameter that can be measured to provide an accurate reading of the current status of nature.

The Government has committed itself to halting the loss of biodiversity by 2020, both as a member of the EU and as a party to the UN Convention on Biological Diversity. Denmark reports the current status of its work with regard to the targets set by both the EU and the Secretariat of the UN Convention on Biological Diversity. Most recently, in April 2014 Denmark released its Fifth National Report to the Secretariat

of the UN Convention on Biological Diversity. This report provides an overview of the current status of biodiversity in Denmark. In addition, the Nature and Environmental Status Report 2014 will be published before the end of 2014. This report, issued every four years, provides a comprehensive analysis of the status and development of nature and the environment.

The extent to which the target of halting biodiversity loss by 2020 has been met will be assessed by both the EU and the UN in that year. In addition, in 2015 the European Commission will carry out a mid-term evaluation of how far the EU has come in relation to meeting the targets set out in the EU's biodiversity strategy.

Up until 2020, in a variety of contexts at national, EU and global levels, Denmark will contribute to an assessment of the state of nature in Denmark and hence to the target of halting the loss of biodiversity by 2020.

In order to measure the status of follow-up on the 2020 target, indicators are being used in Denmark as well as at EU and global levels.

THE GOVERNMENT WILL

• ensure that overall monitoring of nature and the environment continues to contribute to an overview of developments in nature and biodiversity. This will allow ongoing determination as to whether the head-line target of halting biodiversity loss by 2020 is on track.

SUMMARY OF SOURCES FOR MEASURING THE STATUS OF NATURE

2014: "Nature and Environment 2014" (Nature and Environmental Status Report)

2015: The European Commission's mid-term review of the EU's fulfilment of its biodiversity strategy

2016: Reporting of river basin management plans in accordance with the Water Framework Directive

2018: Sixth National Report (report to the Secretariat of the Convention on Biological Diversity)

2018: Nature and Environmental Status Report

2020: Reporting on species and habitat types in accordance with the nature directives

2020: The European Commission's assessment of implementation of the EU's biodiversity strategy

2020: The UN's assessment of the strategic plan for biodiversity 2011-2020, including the 20 Aichi targets. Continuous monitoring of natural habitats and water is also being carried out (NOVANA).

FACTS ABOUT INDICATORS - ASSESSMENT OF THE 2020 TARGETS BOTH IN THE EU AND GLOBALLY The EU developed 26 framework indicators in 2010, known as streamlining European biodiversity indicators (SEBI), to assess its previous biodiversity strategy. Member States have had the opportunity to apply and refine these indicators. Denmark has worked continuously with these indicators; there are now 27 Danish indicators. Under the auspices of the European Environment Agency, the European Commission will update the SEBI indicators in line with the EU's 2020 targets. The indicators will contribute to a measurement of how Member States and the EU as a whole are meeting the policy objectives of the EU's 2020 biodiversity strategy. Indicators are also being used at global level as part of a partnership on biodiversity indicators set up by parties to the Convention on Biological Diversity. The global indicators will also be used in work on measuring progress towards attaining the 20 Aichi targets. The European Environment Agency is included as one of the key parties in these activities.





6. The state of nature in Denmark

Great efforts have been made in recent decades to safeguard Denmark's rich and diverse nature. Fortunately, these efforts have shown results, although it may take decades before all of their effects are seen. A good example is the re-meandering project for the Skjern River, which has provided wild salmon with new spawning grounds, while a large number of meadow and water birds now have a new habitat for feeding and nesting. The decline in biodiversity has been halted for some habitat types and species, and positive tendencies can be detected, for example in the case of watercourses, most birds of prey and the otter.

However this does not mean that the targets have been met. The latest report to the EU about the state of Danish nature shows that only 4 out of 34 habitat types in open country (e.g. heaths, grasslands and salt marshes) are rated to be in a good (so-called "favourable") condition. Hence there is still a need for a large, comprehensive and targeted effort to safeguard viable populations of plant and animal species as well as varied and robust nature areas.

Endangered species

Nature is dynamic, and over time some species disappear while others spread into new areas. Recent years have seen an increase in the occurrence of several species of birds of prey and, for example, cranes, while a decrease in some of the bird species associated with agricultural land has also been detected.

Approximately 32,000 species of animals, plants and fungi are found in Denmark. 8,169 of them were monitored during the period 2003-2010 to see if they had healthy populations. 1,526 species were assessed to be in danger of disappearing from the Danish countryside.

These species are listed in the National Red List of endangered, vulnerable or rare species. The primary causes of the problems facing endangered species, both globally and in Denmark, are habitat degradation due to overgrowth, excessive nutrients, disturbance, habitat fragmentation and drainage.

Nature on agricultural land – open habitats – is under pressure

Large amounts of airborne nutrients, intensified land use, lack of nature management, too little space and water and too few wildlife corridors, leave small and vulnerable habitat patches which are unable to resist external stresses, such as contamination from neighbouring areas. As a result, a number of animal and plant species that were previously common on agricultural land have become rarer. In particular, the so-called specialist species have come under strain. Specialists are species with highly specific habitat demands – they include a number of insect and plant species. However, common species such as hare, lapwing and partridge have also experienced a decline. In many places, hills and pastures with orchids are becoming overgrown with nettles and scrub as a result of excessive nutrients and a lack of management. More widespread natural biotopes and habitats in marshes and meadows are also under threat. The continued intensification of agriculture with larger fields, removal of hedgerows and cultivation of small biotopes has resulted in agricultural land becoming even more homogeneous, which has caused the living conditions for a number of species to deteriorate further.

Efforts to safeguard Denmark's rich and diverse nature have shown results, although it may take decades before all of the effects are seen.

Ancient forests are home to many rare and endangered species

Over the last hundred years, intensive forestry operations, including conversion to coniferous forest and drainage, have led to a loss of habitats and species in forests. This is partly due to a lack of open forest areas, which together with large, old trees and dead wood on the forest floor are essential for a large number of species. Ancient deciduous woodland has a very rich and diverse nature and houses many rare and endangered species, including fungi, insects, larvae and mosses. Open clearings in woodland with shelter and sun provide habitats for large numbers of butterflies.

Improving species diversity in watercourses and lakes

A large number of Denmark's lakes and watercourses have a naturally rich flora and fauna. Watercourses and lakes are polluted by wastewater and nutrient inputs and suffer from past drainage, channelling and damming practices. But in recent years a clear improvement in species diversity in watercourses and lakes has been seen. Nature improvement measures, such as watercourse restorations and re-establishment of wetlands and lakes, has resulted in a general improvement to the biodiversity and water quality in watercourses.

Marine life is under pressure

A number of human activities affect the marine environment. The most important factors are excessive nutrient load and contamination as well as commercial fishing, particularly the impact on the seabed caused by bottom trawling. In addition,

marine life has been affected by activities such as dredging for raw materials, marine construction and marine waste. Biodiversity in Danish marine waters has been declining for many years. Although latterly there has been a slight increase in the diversity of animals in certain parts of the Danish marine areas, the need to make a determined effort to improve the environmental status and hence biodiversity remains.

Climate change presents new challenges

Current and future climate change will magnify some of the problems for biodiversity already caused by human activity. Our climate will become warmer and the frequency of extreme weather events such as torrential rainfall will increase, and animals and plants will need to extend their range.

We will also see animals from southern Europe spreading north. Some of the new species may be invasive and thus capable of outcompeting native plant and animal species.

Salt marshes will be flooded due to rising sea levels, and other habitat types will be affected by elevated groundwater levels and flooding during extreme rainfall. There is a need for integrated planning in order to reduce the impact of climate change on habitats and the loss of plant and animal species. Natural opportunities for nature to adapt also need to be expanded.



Just 30 years ago the otter was almost extinct in Denmark. Nowadays the otter is found throughout Jutland, and there is much to suggest it is in the process of re-establishing itself on Funen and Zealand. The otter is one of the species for which active and targeted habitat management has resulted in improved living conditions in Denmark.



In the past twenty years populations of most of our endangered, Red List woodland birds have increased. This is probably a result of the significant efforts that have been made to ensure more natural forests and close-to-nature forestry practices, along with specific initiatives such as setting up nesting boxes and protecting breeding sites.

Annex 1: Targets in the EU's biodiversity strategy

In 2011 the European Commission adopted a Communication Strategy for Biodiversity (the EU's Biodiversity Strategy 2011-2020), which was subsequently supported by the Council and the European Parliament. The EU's strategy consists of a vision for biodiversity in 2050 and a headline target of halting the loss of biodiversity by 2020. The strategy also sets out six targets with associated specific initiatives.

THE SIX TARGETS IN THE EU'S BIODIVERSITY STRATEGY

Target 1

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

Target 2

Maintain and restore ecosystems and their services By 2020, ecosystems and their services are maintained and enhanced by establishing green infrastructure and restoring at least 15% of degraded ecosystems.

Target 3

Increase the contribution of agriculture and forestry to maintaining and enhancing biodiversity Agriculture: By 2020, maximise areas under agriculture across grasslands, arable land and permanent crops that are covered by biodiversity-related measures under the Common Agricultural Policy (CAP) so as to ensure the conservation of biodiversity and to bring about a measurable improvement in the conservation status of species and habitats that depend on or are affected by agriculture and in the provision of ecosystem services as compared to the EU2010 Baseline, thus contributing to enhance sustainable management.

3B) Forests:

By 2020, Forest Management Plans or equivalent instruments, in line with Sustainable Forest Management (SFM), are in place for all forests that are publicly owned and for forest holdings above a certain size (to be defined by the Member States or regions and communicated in their Rural Development Programmes) that receive funding under the EU Rural Development Policy so as to bring about a measurable improvement(*) in the conservation status of species and habitats that depend on or are affected by forestry and in the provision of related ecosystem services as compared to the EU 2010 Baseline.

Target 4

Ensure the sustainable use of fisheries resources
Achieve Maximum Sustainable Yield by 2015.
Achieve a population age and size distribution
indicative of a healthy stock, through fisheries
management with no significant adverse impacts
on other stocks, species and ecosystems, in support
of achieving Good Environmental Status by 2020,
as required under the Marine Strategy Framework
Directive.

Target 5

Combat invasive alien species
By 2020, invasive alien species and their pathways
are identified and prioritised, priority species are
controlled or eradicated, and pathways are managed
to prevent the introduction and establishment of new
invasive alien species.

Target 6

Help avert global biodiversity loss By 2020, the EU has stepped up its contribution to averting global biodiversity loss.

Annex 2: Aichi targets

The strategic plan for biodiversity 2011-2020 was adopted in October 2010 at the tenth meeting of the Conference of the Parties to the Convention on Biological Diversity. The plan includes five headline strategic goals and 20 targets – the so-called Aichi targets.

THE 20 AICHI TARGETS

Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably.

Target 2: By 2020, at the latest, biodiversity values have been integrated into national and local development and poverty reduction strategies and planning processes and are being incorporated into national accounting, as appropriate, and reporting systems.

Target 3: By 2020, at the latest, incentives, including subsidies, harmful to biodiversity are eliminated, phased out or reformed in order to minimise or avoid negative impacts, and positive incentives for the conservation and sustainable use of biodiversity are developed and applied, consistent and in harmony with the Convention on Biological Diversity and other relevant international obligations, taking into account national socio-economic conditions.

Target 4: By 2020, at the latest, Governments, business and stakeholders at all levels have taken steps to achieve or have implemented plans for sustainable production and consumption and have kept the impacts of use of natural resources well within safe ecological limits.

Target 5: By 2020, the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced.

Target 6: By 2020 all fish and invertebrate stocks and aquatic plants are managed and harvested sustainably, legally and applying ecosystem based approaches, so that overfishing is avoided. Recovery plans and initiatives are in place for all depleted species, fisheries have no significant adverse impacts on threatened species and vulnerable ecosystems and the impacts of fisheries on stocks, species and ecosystems are within safe ecological limits.

Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity.

Target 8: By 2020, pollution, including from excess nutrients, has been brought to levels that are not detrimental to ecosystem function and biodiversity.

Target 9: By 2020, invasive alien species and pathways are identified and prioritized, priority species are controlled or eradicated, and measures are in place to manage pathways to prevent their introduction and establishment.

Target 10: By 2015, the multiple anthropogenic pressures on coral reefs, and other vulnerable ecosystems impacted by climate change or ocean acidification are minimized, so as to maintain their integrity and functioning.

Target 11: By 2020, at least 17% of terrestrial and inland water, and 10% of coastal and marine areas, especially areas of particular importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscapes and seascapes.

Target 12: By 2020 the extinction of known threatened species has been prevented and their conservation status, particularly of those most in decline, has been improved and sustained.

Target 13: By 2020, the genetic diversity of cultivated plants and farmed and domesticated animals and of wild relatives, including other socio-economically as well as culturally valuable species, is maintained, and strategies have been developed and implemented for minimizing genetic erosion and safeguarding their genetic diversity.

Target 14: By 2020, ecosystems that provide essential services, including services related to water, and contribute to health, livelihoods and well-being, are restored and safeguarded, taking into account the needs of women, indigenous and local communities, and the poor and vulnerable.

Target 15: By 2020, ecosystem resilience and the contribution of biodiversity to carbon stocks has been enhanced, through conservation and restoration, including restoration of at least 15% of degraded ecosystems, thereby contributing to climate change mitigation and adaptation and to combating desertification.

Target 16: By 2015, the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization is in force and operational, consistent with national legislation.

Target 17: By 2015 each Party has developed, adopted as a policy instrument, and has commenced implementing an effective, participatory and updated national biodiversity strategy and action plan.

Target 18: By 2020, the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, subject to national legislation and relevant international obligations, and fully integrated and reflected in the implementation of the Convention with the full and effective participation of indigenous and local communities, at all relevant levels.

Target 19: By 2020, knowledge, the science base and technologies relating to biodiversity, its values, functioning, status and trends, and the consequences of its loss, are improved, widely shared and transferred, and applied.

Target 20: By 2020, at the latest, the mobilization of financial resources for effectively implementing the Strategic Plan for Biodiversity 2011-2020 from all sources, and in accordance with the consolidated and agreed process in the Strategy for Resource Mobilization, should increase substantially from the current levels. This target will be subject to changes contingent to resource needs assessments to be developed and reported by Parties.

Annex 3: Danish Nature Policy, the six targets in the EU's Biodiversity Strategy and the 20 global Aichi targets

FOCUS ARE	AS AND INITIATIVES IN THE DANISH NATURE PLAN	EU 2020	CBD AICHI
Our shared r	nature: More and better interconnected nature		
Strategic framework – Designation of A Green Map of Denmark		1,2	1, 5, 11, 14, 15
Initiative 1	A new biodiversity map will ensure better nature conservation planning	1,2	1, 5, 11, 12, 15, 1
Initiative 2	Establishment of the Danish Nature Foundation	1,2	1, 5, 15
Initiative 3	Nature conservation plans will create a better and more connected		
	countryside	1, 2, 3	5, 11, 12, 15
Initiative 4	Denmark will get more forests	2	15
Initiative 5	Two large nature projects will create better nature management		
	and climate protection	1, 2, 3	5, 11, 12, 15
Initiative 6	A cleaner aquatic environment	2, 3	8, 11, 14
Initiative 7	New habitats for the benefit of biodiversity and climate	2, 3	7, 8, 11, 15
Initiative 8	National Parks will continue to be beacons for nature	2	1
Initiative 9	Conserving nature must be an attractive proposition for farmers	3	3, 7, 5, 12
Initiative 10	More and better connected habitats at sea	1, 2, 4	3, 5, 7, 12
Initiative 11	Stone reefs must enrich marine life	1,4	12
	valuable natural habitats must be better protected	1,2,3	5,7,8,12
	Effective and targeted initiatives for our wild animals and plants	1,2,5	12
IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		1,2	12
	The most endangered species peed a helping hand		12
Initiative 14	The most endangered species need a helping hand Efforts to compat invasive species must be intensified.		<u> </u>
Initiative 14 Initiative 15	Efforts to combat invasive species must be intensified	5	9 5 7 11 12
Initiative 14 Initiative 15 Initiative 16	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests	5 1,2,3	5, 7, 11, 12
nitiative 14 nitiative 15 nitiative 16	Efforts to combat invasive species must be intensified	5	
Initiative 14 Initiative 15 Initiative 16 Initiative 17 Our shared r	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests	5 1,2,3	5, 7, 11, 12
Initiative 14 Initiative 15 Initiative 16 Initiative 17 Our shared r	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests Biodiversity in national forests must be improved atture: Improved sense of community through	5 1,2,3	5, 7, 11, 12
Initiative 14 Initiative 15 Initiative 16 Initiative 17 Our shared repeated in the state of the shared repeated in the state of the shared repeated in the shared repeated repeated in the shared repeated repeated in the shared repeated repea	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests Biodiversity in national forests must be improved atture: Improved sense of community through riences and outdoor activities	5 1,2,3	5, 7, 11, 12
Initiative 14 Initiative 15 Initiative 16 Initiative 17 Our shared r nature exper Initiative 18 Initiative 19	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests Biodiversity in national forests must be improved atture: Improved sense of community through riences and outdoor activities Denmark's first national outdoor policy	5 1,2,3	5, 7, 11, 12 1, 5, 7, 11, 12
Initiative 14 Initiative 15 Initiative 16 Initiative 17 Our shared r nature experimitative 18 Initiative 19 Initiative 20	Efforts to combat invasive species must be intensified A new national forest programme must strengthen biodiversity in forests Biodiversity in national forests must be improved nature: Improved sense of community through riences and outdoor activities Denmark's first national outdoor policy Bringing nature into gardens	5 1,2,3	5, 7, 11, 12 1, 5, 7, 11, 12

Danish Nature PolicyOur Shared Nature

2014/2015:25

Danish Ministry of the Environment, Danish Nature Agency

> Haraldsgade 53 DK-2100 København Ø Denmark

Tel.: +45 72 54 30 00 E-mail: info@mim.dk

 ${\bf Electronic\ publication}$

978-87-92256-98-0

Courtesy translation

Design, content

Etcetera Design, Nina Kampmann

Design, cover

e-Types Daily

Photo

Cover: Jakob Dall/Scanpix
Colourbox: pages 21, 27, 31, 36, 37, 39 and 59
Jeroen vand der Kooij: pages 18, 32 and 34
Poul Bjergager Christensen: page 12
Ole Bandholm Photo: page 2
Ole Malling: pages 4, 38 and 51
Sagnlandet Lejre: pages 26, 43, 44, 54 and 55.
Svend Berggren: pages 6, 7, 8, 10, 11, 14, 15, 16,
29, 40, 42, 46, 47, 48, 52 and 56
Søren Grøntved Christiansen: page 45

Internet

The publication is available at nst.dk/naturplandk



