

Summary of the report:

More and better funding

- an estimation of the funding gap in Denmark's biodiversity effort

Published on 6 November 2025



Biodiversitetsrådet

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Members of the Danish Biodiversity Council

Signe Normand, Berit Charlotte Kaae, Theis Kragh, Niels Madsen, Birgitte Egelund Olsen, Carsten Rahbek, Niels Strange, Jens-Christian Svenning and Karen Timmermann.

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The Danish Biodiversity Council
Universitetsbyen 81
DK-8000 Aarhus C

Peer review

Mikael Skou Andersen (Department of Environmental Science, Aarhus University), Jørgen L.S. Hansen (Department of Ecoscience, Aarhus University), Kaj Sand-Jensen (Department of Biology, University of Copenhagen), Max Nielsen (Department of Food and Resource Economics, University of Copenhagen) and Mette Termansen (Department of Food and Resource Economics, University of Copenhagen).

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Preface

This publication is a summary of the report *More and better funding – estimation of the funding gap in Denmark's biodiversity effort*. The summary conveys key messages, central results, figures, and recommendations to provide an easily accessible overview of the report's most important insights.

In this report, the Danish Biodiversity Council reviews current financing for Denmark's biodiversity efforts towards 2050 to evaluate if existing funding is adequate to ensure the minimum, but not necessarily sufficient, basis for halting and reversing the loss of biodiversity. The report estimates the funding gap – the difference between funding requirement and current funding level – and provides insights into how much of government funding contributes to protecting and restoring biodiversity.

The analysis and recommendations contribute to the Danish Biodiversity Council's ongoing work to evaluate and qualify Denmark's overall efforts for biodiversity, as well as various environmental and socio-economic aspects of these efforts.

With this report, the Danish Biodiversity Council shares research-based knowledge focusing on how Denmark can prioritise funding for biodiversity optimally, including in the implementation of the Green Tripartite Agreement.

The Danish Biodiversity Council is a research-based expert panel that works independently of personal, political, governmental, organisational and commercial interests. The chair and the other members of the Danish Biodiversity Council are appointed by the Minister for the Environment from candidates nominated by the Danish universities.

The main purpose of The Danish Biodiversity Council is to advise the government and the Danish Parliament on initiatives that can contribute to halting and reversing the loss of biodiversity on land, freshwaters and in the sea. The Danish Biodiversity Council consists of nine members, all of whom conduct research on topics of relevance to biodiversity in Denmark.

Enjoy the reading!



SIGNE NORMAND, Chair
Professor
University of Aarhus
Biodiversity on land



JENS-CHRISTIAN SVENNING
Professor
University of Aarhus
Biodiversity on land



CARSTEN RAHBK
Professor
University of Copenhagen
Biodiversity on land



KAREN TIMMERMANN
Professor
Technical University of Denmark
Biodiversity in inland waters
and the open sea



NIELS MADSEN
Professor
University of Aalborg
Biodiversity in inland
waters and the open sea



THEIS KRAGH
Associate Professor
University of Southern Denmark
Freshwater biodiversity



BIRGITTE EGELUND OLSEN
Professor
University of Aarhus
Legal aspects of biodiversity

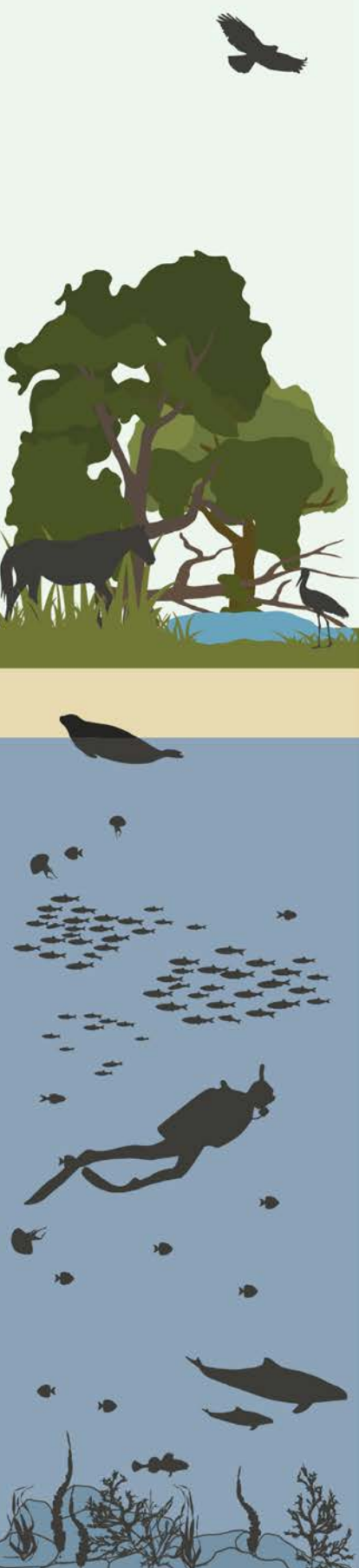


NIELS STRANGE
Professor
University of Copenhagen
Socio- and environmental economic
aspects of biodiversity



BERIT CHARLOTTE KAAE
Senior researcher
University of Copenhagen
Behavioural aspects of
biodiversity, including outdoor
recreation

The five key messages



1

Denmark faces a funding shortfall of at least DKK 6.5 billion per year to achieve biodiversity protection and restoration goals by 2050, corresponding to a total gap of around DKK 162 billion.

2

Government funding allocated to biodiversity objectives should target initiatives with a proven positive impact on biodiversity. Current funding schemes have a very limited impact.

3

Economic policy instruments that promote nature protection and restoration should be strengthened, while incentives that undermine and destroy the fundamental conditions for biodiversity should be revised and minimised. Many current incentives have a potentially harmful effect on biodiversity.

4

The Green Tripartite Agreement plays an important role in supporting marine biodiversity. But the current funding and implementation will only contribute to terrestrial ecosystem protection to a limited degree, and fails to provide the resources required to enhance overall ecosystem quality.

5

A biodiversity law that effectively protects biodiversity, combined with a clear funding plan and long-term efforts, that are promptly planned and implemented, can provide the foundation for halting and reversing biodiversity loss, as well as delivering substantial benefits for society.



Background and purpose

Biodiversity is under pressure both in Denmark and globally. And despite decades of effort, the loss of biodiversity in Denmark has not been halted (Biodiversity Council 2022, 2023). The main causes of the decline are human activities related to land use, resource consumption and pollution.

To halt and reverse the loss of biodiversity, the overall pressure from human activities must be reduced, and incentives that can ensure a positive development for biodiversity need to increase. It is necessary to avoid funding activities that are harmful to biodiversity while increasing funding that support biodiversity.

Under the UN's Global Biodiversity Framework, Denmark is committed to working to identify, revise or phase out incentives that are harmful to biodiversity (CBD 2022). The agreement also states that positive incentives for biodiversity should be increased. It is estimated that globally, at least approximately DKK 18,200 billion are spent annually on incentives that are harmful to nature and biodiversity (Koplow and Steenblik 2024).

Internationally, there is a significant gap between the required funding level for the biodiversity effort and the current level of funding. The global funding level in 2019 is estimated at DKK 850-1,000 billion annually, while the required funding is estimated at DKK 5,000-6,800 billion annually, if biodiversity loss is to be halted by 2030 (Deutz et al. 2020). These estimates suggest an annual global funding gap of at least DKK 4,200 billion. Similarly, the European Commission has estimated the total funding level in the EU at approximately DKK 220 billion annually, while the requirement is approximately DKK 360 billion annually, indicating a funding gap of at least DKK 140 billion annually if member states are to

meet the targets set out in 'Biodiversity Strategy for 2030' (European Commission 2022d).

The main objective of this report is to estimate the funding gap in Denmark's biodiversity effort and to evaluate the need for more and better targeted funding. The funding gap refers to the difference between the funding requirement and the funding level.

The report answers the following questions which are necessary for understanding and estimating the funding gap:

- ▶ **Funding requirement:** What is the minimum societal cost of protecting and restoring biodiversity across 30% of Denmark's land and sea area, thereby ensuring the minimum, but not necessarily sufficient, basis for halting and reversing biodiversity loss?
- ▶ **Funding level:** How much of the government funding for area-based initiatives with a stated biodiversity objective contributes to protecting and restoring biodiversity?
- ▶ **Harmful incentives:** What proportion of government funding is spent on financial incentives for area-based activities that are potentially harmful to biodiversity?

The protection and restoration of biodiversity is not just an expenditure – biodiversity initiatives deliver significant environmental and socio-economic benefits. In this report, the Danish Biodiversity Council estimates some of the significant benefits for the climate, water quality and the aquatic environment that could be achieved by converting 30% of Denmark's land area into large, spatially cohesive protected areas.

Brief method description

The Danish Biodiversity Council's analysis is based on an understanding of the fundamental preconditions for biodiversity as well as the scientific principles of biodiversity protection and restoration. The measures required to create the minimum, but not necessarily sufficient, basis for halting and reversing biodiversity loss are based on these principles

The analysis of the funding requirements includes measures and associated costs of establishing large, spatially cohesive protected areas covering 30% of Denmark's land area, restoration of natural vegetation, grazing and hydrological dynamics,

as well as lake and watercourse restoration within this area, corresponding to 52% of all Danish lakes and 47% of the length of Danish watercourses, nitrogen reduction of at least 14,100 tonnes per year in the marine environment, protection of approx.

30% of Denmark's marine area by prohibiting bottom trawling in marine areas under protection schemes, and restoration of stone reefs, see Illustration 1.

The funding requirement are estimated as the combined establishment and operating costs

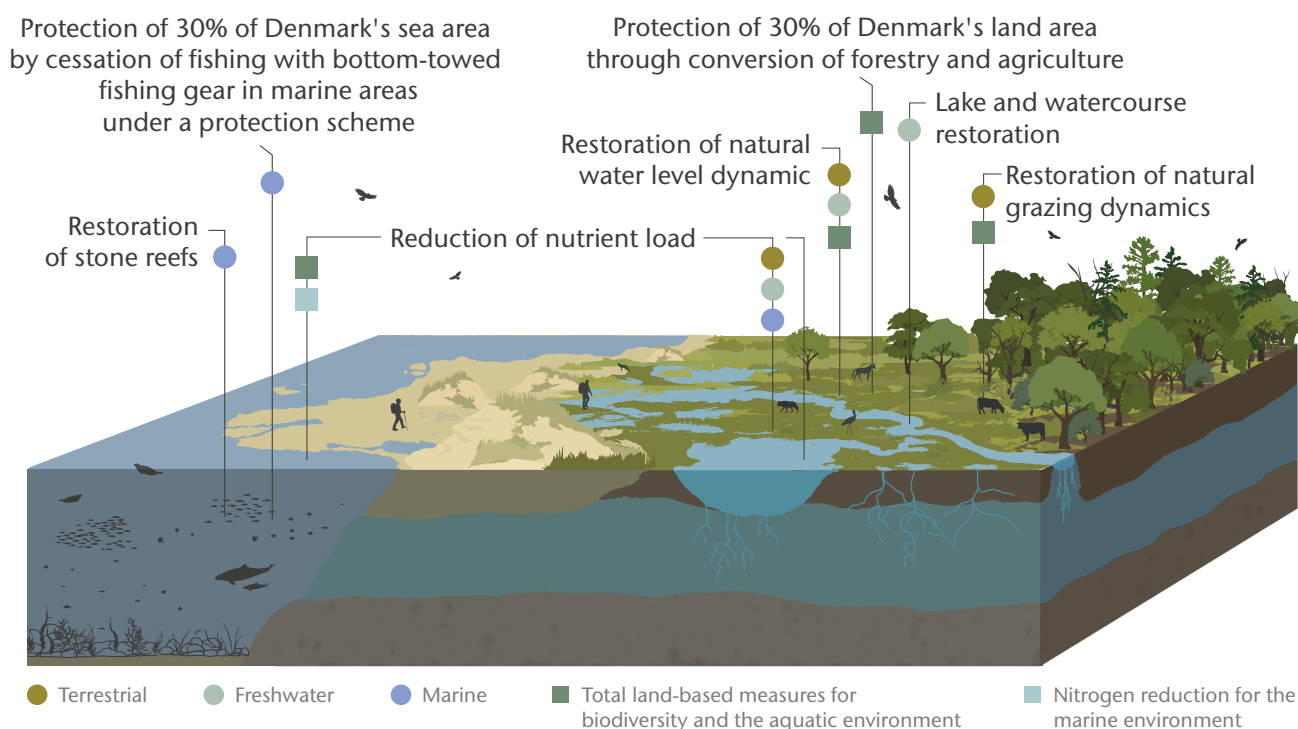


Illustration 1. Measures to protect and restore biodiversity included in the estimation of funding requirement. Includes the establishment of spatially cohesive protected areas covering 30% of Denmark's land area, restoration of natural grazing and hydrological dynamics, lakes and watercourses within this area (corresponding to 52% of all Danish lakes and 47% of the length of all Danish watercourses, respectively), reduction of nitrogen leaching to the marine environment by at least 14,100 tonnes per year, protection of approximately 30% of Denmark's marine area by cessation of fishing with bottom-towed fishing gear in marine areas under a protection scheme, and restoring stone reefs.

until 2050. The funding requirement associated with the individual measures are calculated in various ways. Part of the funding requirement is calculated based on direct costs for managing and restoring terrestrial and freshwater biodiversity and restoring stone reefs, while the funding requirement for protecting 30% of Denmark's land area is calculated as a direct cost based on lost revenue due to changes in land use. The calculation was performed using a national cost minimisation and land management model (TargetEcon), which estimates the costs (i.e. forgone net profit) of converting forestry and agricultural land under cultivation to protected areas and reducing nitrogen leaching to the marine environment (Termansen et al. 2023). The model accounts for both the need for land protection and nitrogen reduction in the sea are met in the most cost-effective manner, thereby benefiting biodiversity on land and in the sea. Finally, the funding requirement for protecting 30% of Denmark's marine area is calculated as a direct loss in net profit from the cessation of fishing with bottom-towed fishing gear in marine areas under a protection scheme.

The level of funding is estimated based on an assessment of current government economic policy instruments up to 2045, including funding from the EU's Common Agricultural Policy (CAP), the Green Tripartite Agreement, the European Maritime, Fisheries and Aquaculture Fund (EMFF) and selected national sources of funding. The policy instruments are initially divided into area-based and non-area-based measures. The policy instruments are then subdivided into two categories: policy instruments with a stated biodiversity objective and those without. Subsequently, area-based policy instruments are assessed in relation to their biodiversity impact, including policy instruments with a potentially negative biodi-

versity impact and those with a predominantly positive biodiversity impact. Policy instruments with a predominantly positive effect are assessed both in relation to targeted implementation with a focus on biodiversity and in relation to the current approach to implementation, which is based on the descriptions of the subsidy schemes and the background for the economic policy instruments, see illustration 2.

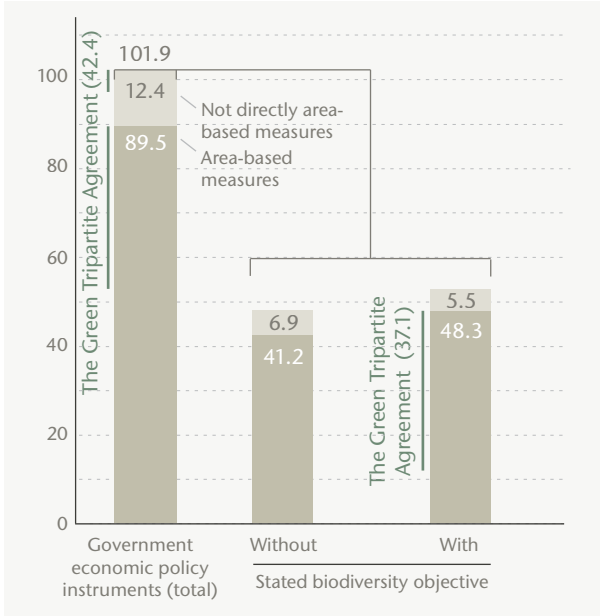


Illustration 2. Calculation of total government funding for biodiversity initiatives up to 2045. Calculations are based on the current DKK 89.5 billion which has been allocated in area-based government economic policy instruments from the EU's Common Agricultural Policy (CAP), the Green Tripartite Agreement and the European Maritime, Fisheries and Aquaculture Fund (EMFF). These policy instruments are subsequently divided into DKK 41.2 billion for policy instruments without a stated biodiversity objective and DKK 48.3 billion for policy instruments with a specified biodiversity purpose. Non-area-based activities include administration, research, consultancy and technology. For further details, see Chapter 3 of the report.

The biodiversity effect of the total funding level depends on the measures chosen and the associated subsidies. The effect of the level of government funding is estimated based on the government's current choice of measures and subsidies for setting aside protected areas and for nitrogen reduction in the marine environment, respectively. The biodiversity impact is estimated by converting the proportion of government funding allocated that leads to land use changes based on government subsidies per hectare, and by estimating the associated nitrogen reduction. The measures required are also estimated for the conversion of land areas to protected areas and nitrogen reduction in the marine environment using the TargetEcon cost minimisation and land management model. Based on this impact calculation and the estimated requirements for land sparing and nitrogen reductions, a gap was calculated for a target of 30% protected area and a nitrogen reduction of 13,780 tonnes per year and

at least 14,100 tonnes per year, respectively. The lower nitrogen reduction target is set by the Green Tripartite Agreement, while the slightly higher reduction target is estimated by researchers in order to reach the objectives for coastal waters defined in the Water Framework Directive.

Finally, the funding gap is calculated as the difference between the funding requirement and the current funding level for all initiatives, estimating how much additional funding is needed to cover the required measures, see illustration 2.

The environmental and societal benefits of protecting 30% of Denmark's land area are also modelled, including reductions in CO₂ and nitrogen leaching and the protection of drinking water abstraction areas that are currently used for agriculture (Termansen et al. 2023).



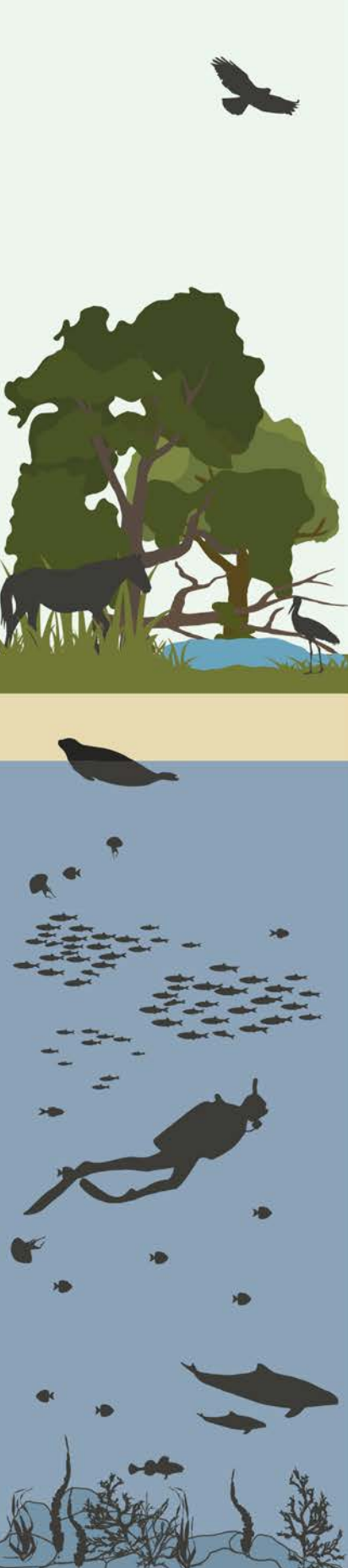
Key assumptions and limitations

The funding gap is a conservative estimate for several reasons. The main assumptions and limitations of the analysis are summarised below:

- The funding gap depends on the biodiversity impact of the current funding level. There are uncertainties associated with the ongoing and future implementation of the funded measures. If the measures do not have the expected impact, the funding gap will increase.
- It was not possible to calculate the total funding required for all measures to protect and restore biodiversity. For example, the analysis only includes the costs of establishing protected areas, and does not account for potential additional costs associated with establishing strictly protected areas.
- Funding requirements may increase in the future as a result of climate change or further degradation of ecosystems, for example through the continuation of harmful financial incentives.
- The funding requirement was calculated based on the assumption that the most cost-effective measures to protect and promote biodiversity will be deployed. However, it is a political decision which measures will be utilised. If, for example, measures with higher costs per tonne of nitrogen reduction or per hectare set aside as protected areas are implemented, the funding requirement will be higher.
- The level of funding covers the most significant government funding, but not all government funding that may be relevant to biodiversity, including funding in the The Danish Marine Nature Fund (Havnaturfonden) and the Danish fisheries agreement.
- The funding requirement and level are expressed in 2023 prices. The analysis assumes constant prices and does not account for potential increases in real prices in the future.
- It is assumed that implementing protection and restoration measures on 30% of Denmark's land and sea area will not lead to increased emissions, pollution, production or similar leakage effects.



The key messages



- 1** *Government funding for Denmark's biodiversity effort is far from sufficient to halt and reverse the loss of biodiversity.*
- 2** *There is a particular lack of funding to protect and restore terrestrial and freshwater ecosystems by 2050.*
- 3** *At least DKK 173.2 billion in funding is required by 2030 if national and international targets are to be met.*
- 4** *The majority of government-funded measures do not contribute to halting and reversing biodiversity loss on land.*
- 5** *The Green Tripartite Agreement is important for marine biodiversity, but with current funding and implementation, it can only create a little more protected nature on land and it lacks funding to restore ecosystems.*
- 6** *Targeted funding for the protection and restoration of biodiversity from foundations and local authorities can contribute to closing 22% of the funding gap.*
- 7** *Many economic policy instruments are harmful to biodiversity and potentially increase the funding gap.*
- 8** *There are environmental and societal benefits to be gained from protecting and restoring 30% of Denmark's land area.*



Elaboration of key messages and results

1. Government funding for Denmark's biodiversity effort is far from sufficient to reverse biodiversity loss.

- ▶ A total of at least DKK 207.4 billion is necessary by 2050 to fund the measures that can create the minimal, but not necessarily sufficient, basis to halt and reverse the loss of biodiversity within 30% of Denmark's land and sea area, see Figure 1.
- ▶ Up to DKK 44.8 billion of the above funding requirement could potentially be met by government

funding for initiatives with a stated biodiversity objective. However, these initiatives must be implemented with a focus on biodiversity. If they are not, only DKK 10.8 billion of the funding requirement can be met by government funding, see Figure 1.

- ▶ As a result, there is a funding gap of at least DKK 162.6 billion, corresponding to DKK 6.5 billion annually, in Denmark's protection and restoration efforts for terrestrial, freshwater and marine ecosystems by 2050, see Figure 1.

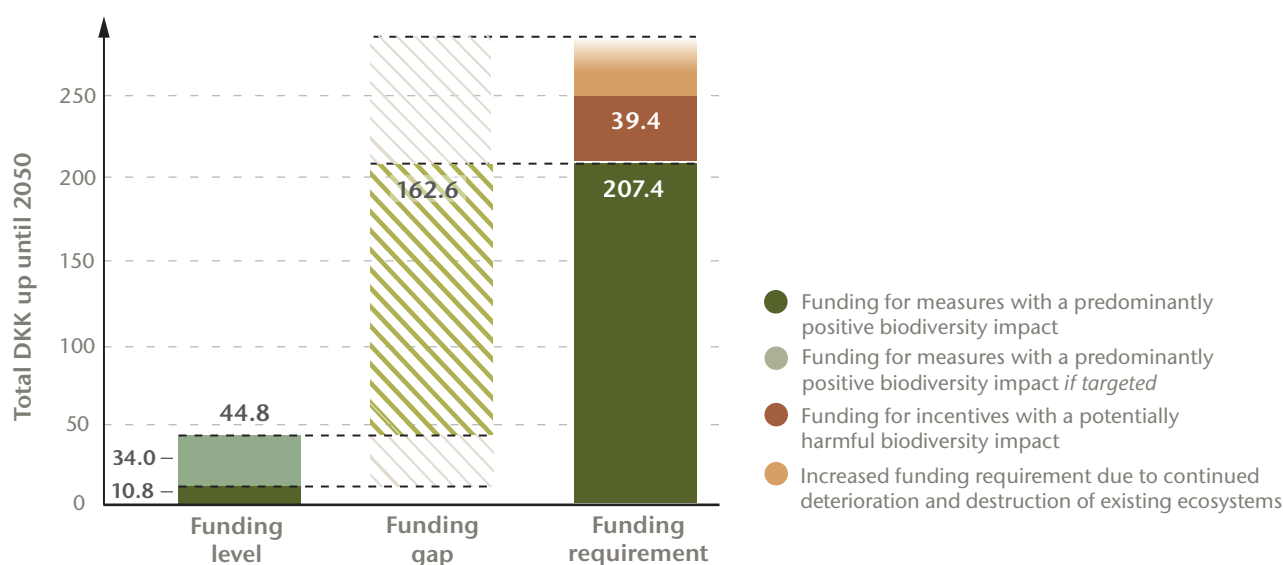


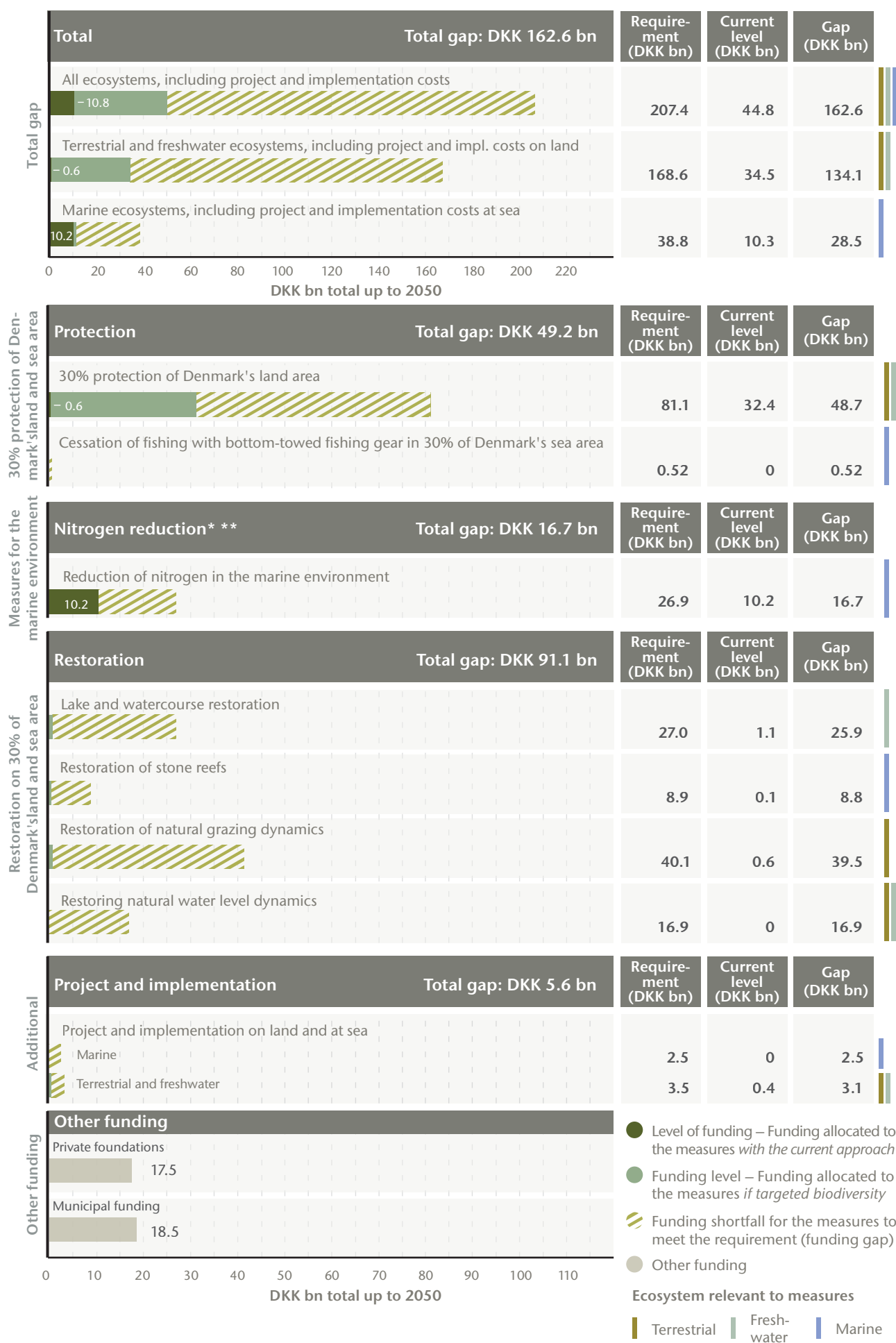
Figure 1. Funding gap up to 2050. Based on the Danish Biodiversity Council's estimate of funding requirement and current government funding for the protection and restoration of Denmark's biodiversity, the funding gap will amount to at least DKK 162.6 billion up to 2050. This funding gap estimate is based on the assumption that DKK 44.8 billion of the government funding for initiatives with a stated biodiversity objective will be implemented and targeted biodiversity on land and in the aquatic environment through the most cost-effective initiatives within 30% of Denmark's land area. If they are not, only DKK 10.8 billion of the funding requirement can be met by government funding, which would result in the funding gap increasing to DKK 196.6 billion by 2050. The Danish Biodiversity Council has estimated that DKK 39.4 billion have been allocated to policy instruments with a potentially harmful impact on biodiversity. Negative pressures from these and other potentially harmful incentives are expected to further increase the funding gap. This potentially harmful effect has not been included in the calculation of the funding requirement.

2. There is a particular lack of funding to protect and restore terrestrial and freshwater ecosystems by 2050.

- ▶ The funding gap of DKK 162.6 billion is distributed as follows: DKK 49.2 billion for protection and DKK 91.1 billion for restoration of biodiversity within 30% of Denmark's land and sea area, as well as a funding gap of DKK 16.7 billion for nitrogen reduction in the marine environment and DKK 5.6 billion for project and implementation costs, see Figure 2.
- ▶ Terrestrial and freshwater ecosystems have a total funding gap of DKK 134.1 billion, corresponding to approximately 82% of the total funding gap. Of this amount, DKK 48.7 billion is needed to protect large spatially cohesive land areas, DKK 25.9 billion to restore watercourses and lakes, and DKK 56.4 billion to restore natural grazing and water level dynamics, see Figure 2.
- ▶ Marine ecosystems have an estimated funding gap of DKK 28.5 billion, corresponding to approximately 18% of the total funding gap. The marine funding gap includes costs for nitrogen reduction in the marine environment, cessation of fishing with bottom-towed fishing gear in marine areas under a protection scheme, and restoration of stone reefs. Government funding meets 66% of the nitrogen reduction requirement of at least 14,100 tonnes per year, or 67% of the Green Tripartite Agreement's nitrogen target of 13,780 tonnes per year.

3. There is a funding requirement of at least DKK 173.2 billion by 2030 if national and international targets are to be met.

- ▶ There is a funding requirement of at least DKK 98.1 billion up to 2027 if Denmark is to create the conditions for achieving national and international targets. This includes the goal of achieving good ecological status in all coastal waters as well as in lakes, watercourses and streams within 30% of Denmark's land area, thereby enabling Denmark to make a significant contribution to the obligations under the Water Framework Directive.
- ▶ There is a funding requirement of DKK 75.1 billion for the period 2027 to 2030 if Denmark, on an equal footing with other countries, is to contribute to the UN and EU targets of protecting and restoring 30% of land and sea areas by 2030.





◀◀◀ **Figure 2. The funding gap broken down by initiatives.** The figure shows the funding requirement, current level and gap for the measures recommended by the Danish Biodiversity Council to create the minimum, but not necessarily sufficient, basis for halting and reversing the loss of biodiversity, see illustration 1. The funding gap is distributed across protection, restoration and nitrogen reduction for the marine environment, that contributes to biodiversity measures in terrestrial, freshwater and marine ecosystems (indicated by colour). In addition, at the bottom of the figure there is an estimate of the private and municipal funding that could potentially help to close the gap. Please note that the estimated level is contingent upon the measures being targeted at biodiversity and does not reflect the effect of the level under current implementation schemes. *The current level of funding, funding requirement and funding gap for nitrogen reduction are contingent on the implementation of measures related to the 30% of protected areas in Denmark, as part of the nitrogen reduction can be achieved by establishing protected areas. **The Danish Biodiversity Council's assessment of the funding requirement and level related to nitrogen reduction is calculated on the assumption that the assessed economic policy instruments are targeted at biodiversity on land and in the marine environment through the most cost-effective measures for protection and restoration.

4. The majority of government-funded initiatives do not contribute to reversing biodiversity loss on land.

- ▶ More and better nature in large, spatially cohesive protected land areas is a prerequisite for reversing the loss of terrestrial and freshwater biodiversity. It is estimated that, with the current approach to implementation, only DKK 0.6 billion is allocated to protection and restoration measures that directly contribute to reversing biodiversity loss on land. This corresponds to just 2% of the DKK 39.8 billion in state funding for area-based initiatives with a stated biodiversity objective, see Figure 3.
- ▶ Protection initiatives on land can be strengthened by an additional DKK 25.9 billion if they are implemented with a focus on location and size, targeting large, spatially cohesive protected land areas. However, most of the new areas that could potentially be created in this way will require restoration measures to improve ecosystem quality and deliver on policy goals. A total of DKK 1.6 billion has been allocated for restoration and thus for improving the quality of nature, provided that the measures are targeted at biodiversity (see Figures 2 and 3).
- ▶ Measures outside protected natural areas cannot in themselves reverse biodiversity loss, but they can help to increase ecological density and richness between protected areas. With the current approach to implementation, the majority of government funding will potentially contribute to increasing ecological density outside protected areas, corresponding to DKK 37.6 billion. A total of DKK 11.7 billion can continue to contribute to increasing ecological density outside protected areas if the DKK 25.9 billion is targeted at spatially cohesive protected areas, see Figure 3.

5. The Green Tripartite Agreement is important for marine biodiversity, but with current funding and implementation, it can only expand protected terrestrial ecosystems to a limited extent and lacks funding to improve ecosystem quality.

- ▶ One objective of the Green Tripartite Agreement is to create significantly more and better natural ecosystems through a comprehensive conversion of agricultural land. The conversion is expected to help reverse the loss of marine biodiversity by reducing nitrogen pollution in the marine environment. However, it is uncertain to what extent the Green Tripartite Agreement will make a difference with regard to terrestrial and freshwater biodiversity, see Figure 3.
- ▶ The Green Tripartite Agreement has allocated DKK 0.35 billion for the establishment of new nature national parks and the expansion of those already planned. The Danish Biodiversity Council estimates that, collectively, they will contribute to the protection and restoration of a maximum of 0.2% of Denmark's land area – primarily within areas covered by current protection schemes.
- ▶ Through the conversion of existing agricultural land, the Green Tripartite Agreement can potentially contribute to increasing the area of existing protected areas towards 2045 by 0% to a maximum of 5.8% of Denmark's land area, corresponding to the land sparing target of up to 250,000 hectares set out in the agreement. However, in order for the conversion to contribute, the measures must be targeted and implemented with a focus on biodiversity. With the current funding and implementation approach, it is estimated that the Green Tripartite Agreement will contribute at most to increasing protected area by up to 2% of Denmark's land area. This corresponds to a conversion of up to 85,505 hectares of lowland

and marginal areas in river valleys within future spatially cohesive protected areas.

- The Green Tripartite Agreement does not allocate funding to restore ecosystem quality in the converted areas. A total of DKK 37.1 billion has been allocated to area-based initiatives, of which up to DKK 25.5 billion could potentially contribute to creating new protected areas. However, only DKK 0.08 billion has been allocated to funding the restoration of the marine environment.

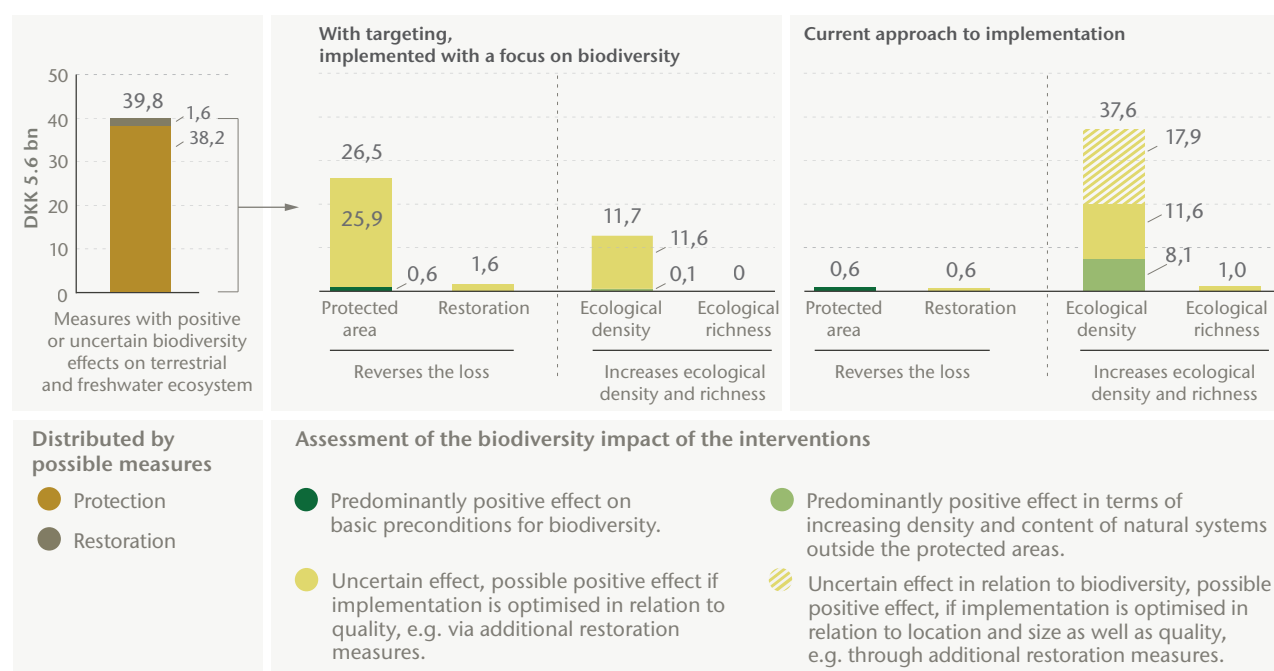


Figure 3. Assessed biodiversity impact of government funding for terrestrial and freshwater ecosystems. On the left is the government funding for area-based measures with a stated biodiversity objective linked to terrestrial and freshwater ecosystems, totalling DKK 39.8 billion. Of this, DKK 38.2 billion is earmarked for measures that can potentially contribute to creating greater spatial cohesion and reducing pressure (protection), and DKK 1.6 billion to improving quality (restoration). On the right, the figure illustrates the Danish Biodiversity Council's assessment of the biodiversity effect if the measures target biodiversity on the one hand or implemented using the current approach on the other. The biodiversity impact was assessed in terms of whether it can help reverse biodiversity loss through the protection and restoration of large spatially cohesive areas, or contributes to increasing ecological density and richness outside protected areas.

6. Funding from foundations and municipalities targeted at protecting and restoring biodiversity can help close 22% of the funding gap.

- ▶ The Danish Biodiversity Council estimates that Danish foundations will provide approximately DKK 17.5 billion in funding for nature management and protection initiatives up until 2050, while municipalities will provide approximately DKK 18.5 billion, assuming that current funding level remain unchanged. Targeting measures at protecting and restoring biodiversity on land and at sea could close 10.8% and 11.4% of the funding gap, respectively.

7. Many economic policy instruments are harmful to biodiversity and can potentially increase the funding gap

- ▶ Of the DKK 109 billion in governmental economic policy instruments assessed by the Danish Biodiversity Council, DKK 41.2 billion has been allocated to policy instruments that do not have a stated biodiversity objective but are primarily targeted at agriculture, forestry and fisheries. Of the DKK 41.2 billion, DKK 39.4 billion is potentially harmful to biodiversity, corresponding to 95%, see Figure 1.
- ▶ There is therefore a significant need to revise the sector-specific economic policy instruments to ensure to avoid harmful effects on biodiversity.

8. Protecting and restoring 30% of Denmark's land area brings environmental and societal benefits.

- ▶ Establishing protected areas covering 30% of Denmark's land area will reduce CO₂ emissions by 4.2 million tonnes of CO₂e annually. This corresponds to approximately 24 % of the remaining CO₂e reduction that Denmark must achieve in order to meet its climate targets of a 70% reduction by 2030. At a unit price of DKK 482 per tonne of CO₂e, the reduction corresponds to a socioeconomic benefit of approximately DKK 2 billion annually, corresponding to a total of DKK 50 billion by 2050.
- ▶ Establishing protected areas covering 30% of Denmark's land area will reduce nitrogen leaching to the marine environment by 5,674 tonnes annually, while also protecting 19.8% of Denmark's drinking water extraction areas currently used for agriculture.
- ▶ It is estimated that further significant environmental and societal benefits can be achieved by creating more protected area on land and at sea. These include increased opportunities for climate adaptation, outdoor recreation, nature tourism, groundwater formation and protection, and health benefits.



The Danish Biodiversity Council's recommendations



The Danish Biodiversity Council's recommendations

To halt and reverse biodiversity loss in all Danish ecosystems, the Danish Biodiversity Council recommends:

- ▶ **Significantly increase government funding for nature protection and restoration.** To ensure the minimum, but not necessarily sufficient, basis for reversing biodiversity loss and enhancing biodiversity within 30% of Denmark's land and sea area, at least DKK 162.6 billion is needed by 2050. The amount will be DKK 34.0 billion higher if the measures are not implemented with a focus on biodiversity, see Figure 1.
- ▶ **Improve the quality of ecosystems in existing and new protected areas by increasing government funding for restoration.** Only a very small proportion of government funding has been allocated to restoration. High ecosystem quality is one of the fundamental preconditions for biodiversity. Denmark is committed to restoring ecosystems in line with the EU's Nature Restoration Regulation and other international agreements. A total of at least DKK 91.1 billion is needed to restore Denmark's ecosystems.
- ▶ **Increase funding for initiatives in terrestrial and freshwater ecosystems, that will also benefit marine ecosystems.** The funding gap is greatest for terrestrial and freshwater ecosystems. In addition to funding for the protection and restoration of existing natural areas, priority should be given to converting forest and agricultural land into large, spatially cohesive natural areas, as this will also benefit biodiversity in freshwater and coastal marine ecosystems.
- ▶ **Give biodiversity in freshwater ecosystems a much-needed boost.** A significant increase in funding is required to create the conditions for reversing the loss of freshwater biodiversity and achieving good ecological status in all lakes and watercourses within 30% of the land area. In ad-

dition to the measures on land, there is a shortfall of DKK 25.9 billion for the restoration of lakes and watercourses with a focus on biodiversity. These measures are necessary to reach the targets in the Water Framework Directive.

- ▶ **Strengthen efforts to restore marine ecosystems.** An additional DKK 28.5 billion is needed to protect and restore marine ecosystems. Measures that reduce pressure on the sea should be prioritised, as this is a prerequisite for successful recovery.

To reduce the ongoing pressures on biodiversity and create momentum for conservation and restoration efforts, the Danish Biodiversity Council recommends:

- ▶ **Minimise and revise incentives that degrade and destroy biodiversity.** Economic policy instruments for activities that degrade the fundamental preconditions for biodiversity and ecological integrity should be minimised. The Danish Biodiversity Council estimates that DKK 39.4 billion of the total funding for government economic policy instruments targeted agriculture, forestry and fishery is used for activities that are potentially harmful to biodiversity. In line with Denmark's international commitments, it is necessary to revise policy instruments so that they are at least neutral in relation to biodiversity. It should not be profitable to pollute, degrade or destroy natural areas.
- ▶ **Transform economic incentives to support land sparing and the expansion of spatially cohesive natural areas.** Basic subsidies aimed at converting agricultural land into natural areas should be applied consistently across land-use categories, whether the measure involves afforestation on unmanaged land or other forms of permanent extensification designed to enhance biodiversity.

- **Increase incentives that promote the protection and restoration of biodiversity.** Implementing differentiated economic policy instruments with a positive incentive structure and a clear biodiversity focus can help make it financially viable and more motivating for landowners to contribute to protection and restoration efforts. The differentiated policy instruments would serve to ensure management with large grazing animals and the prioritised and permanent sparing of land in connection with large, spatially cohesive natural areas with high realised biodiversity or biodiversity potential.

To ensure that a larger proportion of government funding contributes to closing the funding gap, the Danish Biodiversity Council recommends:

- **Target governmental economic policy instruments with stated biodiversity objectives towards initiatives with a proven positive impact on biodiversity.** According to this assessment, the majority of government funding allocated to initiatives with a stated biodiversity objective does not contribute to reversing biodiversity loss. The current approach to implementing subsidy schemes should be revised so that funding is targeted and prioritised according to permanence, ecosystem quality, biodiversity potential, location and size. This would improve the fundamental preconditions for biodiversity and ecological integrity in large, spatially cohesive, high-quality protected land areas. With revision, the funding for these initiatives may be increased by up to DKK 26.5 billion, see Figure 3.
- **Future agreements on EU agricultural and fisheries funding should be targeted protection and restoration.** Funding from the EU's Common Agricultural Policy (CAP) and the European Maritime, Fisheries and Aquaculture Fund (EMFF) should be targeted at protecting and restoring nature and biodiversity in future agreements. If the current support schemes continue unchanged, they can potentially only contribute up to DKK 10.8 billion up to 2050 to close the funding gap. In future revisions, these economic policy instruments should be redesigned and adjusted with a clear focus on biodiversity.
- **Where possible, coordinate and target land sparing for nitrogen reduction measures with the presence of biodiversity on land.** Geographically targeted nitrogen reduction measures can help reverse the loss of biodiversity on land and not just in the sea, if they are implemented with a focus on permanent land sparing and restoration, and, wherever possible, contribute to the creation of large, spatially coherent natural areas. If the measures in the Green Tripartite Agreement' are implemented solely with a focus on nitrogen reduction, there is a risk that the measures will not contribute to reversing the loss of terrestrial and freshwater biodiversity. If, on the other hand, they are implemented with a focus on terrestrial biodiversity, they could potentially contribute to additional protected land areas covering 2-5.8% of Denmark's land area.

To ensure that other funding sources can help close the funding gap, the Danish Biodiversity Council recommends:

- ▶ **Target funding from municipalities and private foundations towards the protection and restoration of large natural areas.** It will help to reduce the funding gap if municipal and private funding for nature projects is targeted at initiatives with a documented positive impact on biodiversity across ecosystems, particularly larger spatially cohesive natural areas and initiatives that improve the ecosystem quality of existing natural areas.

To ensure that biodiversity is effectively protected, the Danish Biodiversity Council recommends:

- ▶ **Pass a Danish biodiversity law that effectively protects biodiversity.** This legislation must ensure long-term biodiversity within protected areas should be given high priority. Therefore, the law should contain clear definitions and criteria for protection levels which can form the basis for the designation, implementation and management of protected areas.
- ▶ **Set binding targets based on the fundamental preconditions for biodiversity.** The objectives of a Danish Biodiversity Act should be consistent with the international and EU-based objectives to which Denmark is already committed. The law must be based on the fundamental preconditions for biodiversity: more space, quality and time. A broad biodiversity approach should be enshrined in law as a fundamental principle of nature conservation and restoration.
- ▶ **Plan a targeted effort to be launched as soon as possible.** A coming biodiversity law sets out the overall framework for national efforts to protect and restore nature. It facilitates planning and implementation happening as quickly as possible so that the loss of biodiversity can be halted and reversed more rapidly. Delays increase future funding requirement and postpone the benefits associated with creating protected natural areas.
- ▶ **Prioritise long-term measures for protection and restoration across ecosystems.** The prioritization of efforts should be set through a research-based, broad and ecosystem-based biodiversity approach that ensures the ecological integrity of the areas and the long-term significance for overall biodiversity. It is recommended that ecosystem restoration under the EU Nature Restoration Regulation be implemented across ecosystems, as natural ecological processes are interconnected and cannot be effectively managed in isolation. This will reduce the likelihood of initiatives becoming unnecessarily expensive because of missed synergistic opportunities.
- ▶ **Focus on protecting large, spatially cohesive areas and prioritising areas with a focus on biodiversity impact.** The prioritisation of areas for protection and restoration should be evidence-based, holistic and area-based planning that maximises biodiversity impact and ensures ecological integrity. Biodiversity needs large, functionally cohesive protected natural areas that ensure broad biodiversity and where natural ecological processes can unfold. Protection of Denmark's land and sea areas should follow the international targets of 30% protected nature. Measures that contribute to maintaining and increasing ecological density and richness across ecosystems outside potentially protected areas are also relevant. They can support functional cohesion and ensure the quality of small habitats across the landscape, but they cannot in themselves reverse the loss of biodiversity.

To ensure the environmental and societal benefits associated with natural areas, the Danish Biodiversity Council recommends:

- **Include environmental and society benefits in the prioritisation of government funding.** The protection of natural areas generates significant environmental and societal benefits. It is expected that there will be more societal benefits than those calculated in this report, and that the value of the total benefits will exceed the costs. It is recommended that these benefits are estimated and taken into account in the prioritisation of measures aimed at protecting biodiversity, the aquatic environment, drinking water and the climate.

To strengthen the overall structure for Denmark's biodiversity effort, the Danish Biodiversity Council recommends:

- **Set clear standards for assessing the biodiversity impact of public and private contributions to Denmark's biodiversity effort.** The recommendation is that clear standards and a national register is established to keep track of private and public efforts to protect and restore biodiversity. This will ensure transparency, high quality, coordination and targeting, so that the specific initiatives support overall national efforts.
- **Strengthen the regulatory framework for biodiversity measures.** Legislation and administrative management practices should be adapted to remove barriers that limit effective implementation. At the same time, the practical aspects of implementation should be strengthened, for example through enhanced enforcement. This will ensure maximum impact on biodiversity and prevent additional costs that would make the effort more expensive, and consequently increase the funding gap.

- **Establish a research-based comprehensive plan for future land use.** A comprehensive plan based on prioritising areas according to their potential biodiversity impact would ensure that objectives for biodiversity, both inside and outside protected areas, as well as for climate, aquatic environment, drinking water, food production and nature experiences, are achieved holistically. Measures for protecting and restoring biodiversity on land, coordinated with measures to protect the marine environment, should be guiding principles, as they also generate additional societal benefits, for example in relation to climate targets and water protection.
- **Develop a national funding plan for closing the funding gap.** To the greatest possible extent, the plan should include a reallocation of economic policy instruments so they are targeted and implemented with a focus on the fundamental preconditions for biodiversity on land and at sea

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Pictures

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