Report

# Norway's Fifth National Report to the Convention on Biological Diversity

NORWEGIAN MINISTRY OF
CLIMATE AND ENVIRONMENT

# Executive Summary

Norway's fifth national report to the Convention on Biological Diversity presents information on status and trends for biodiversity in Norway, measures undertaken to implement the Convention since 2009, successes and remaining challenges. Norway's previous national reports were published in 1998, 2001, 2005 and 2009.

## Status, trends and pressures

Norwegian nature is very varied, with striking differences between landscapes, habitat types and plant and animal species found in different parts of the country. There is a wide diversity of terrestrial habitat types, ranging from beech forest in the south to Arctic habitats in the north, and from wet coastal habitats to dry inland areas. The sea areas under Norway's jurisdiction are about six times larger than its land territory. They stretch from the temperate waters of the central North Sea to the Arctic Ocean, and from shallow bank areas down to deep sea areas at depths of 4 000–5 000 metres. Norway's biodiversity provides the foundation for a wide range of ecosystem services, of vital importance for human well-being and socio-economic development.

There are many different pressures on Norway's biodiversity. Figure 1 provides an overview of pressures on biological diversity as assessed in the 2010 Norwegian Red List for Species. Chapter 2 presents the main pressures on biodiversity in Norway. The importance of pressures for specific ecosystems is described in Chapter 3 on status and trends for Norwegian ecosystems.

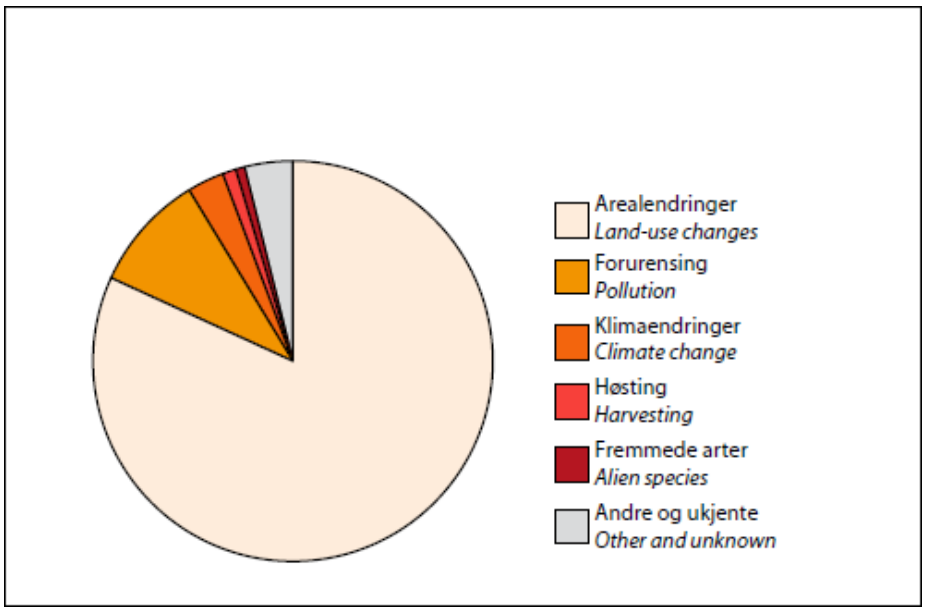


**Figure 1:** Land-use change, pollution, climate change, harvesting (over-exploitation) and alien species are the five major global pressures on biological diversity. In Norway, land-use change is by far the most significant factor. Other factors include noise, traffic and external pressures (originating outside Norway). Source: Norwegian Biodiversity Information Centre 2010.

Norway's red lists (*2010 Norwegian Red List for Species* and *Norwegian Red List for Ecosystems and Habitat Types*), the Norwegian Nature Index and the National Forest Inventory are the most important sources of information for assessing status and progress.

The Norwegian Nature Index documents overall trends for biodiversity in Norway's major ecosystems based on a large number of indicators (Table 1). Due to challenges concerning calculating the reference state in certain ecosystems, direct comparison between ecosystems should be avoided.

**Table 1:** Norway's major ecosystems: area, state and trends. The value for each indicator ranges between 1 and 0. The reference state is given the value 1, and approximates to the natural state, with no negative impacts of human activity.

| Ecosystem [7] | Area ($km^2$) (% of Norway's land area)[1] | Nature Index value in 2010[2] (95 % confidence interval) | Trend 1990–2010 | No. of threatened and near-threatened species | No. of threatened and near-threatened habitat types |
|---|---|---|---|---|---|
| Open sea | 875 995 | 0.75 (0.65-0.83) (seabed) 0.71 (0.65-0.76) (pelagic) | ↗ | 87[3] | 5 |
| Coastal waters | 89 091 | 0.73 (0.69-0.76) (seabed) 0.66 (0.49-0.71) (pelagic) | → | | 9[4] |
| Freshwater | 19 620 (6.0 %) | 0.73 (0.68-0.76) | ↗ | 267 | 7 |
| Forest | 120 746 (37.3 %) | 0.40 (0.38-0.43) | → | 1838 | 18 |
| Wetlands | 17 000 (5.3 %) | 0.53 (0.51-0.57) | → | 443 | 15 |
| Mountains | 118 740 (36.7 %) | 0.63 (0.57-0.69) | → | 158[5] | |

[1] The areas of different ecosystems are based on figures from Statistics Norway. Mountain areas were defined as those above the treeline and open lowland as traditional semi-natural vegetation types such as open grassland in the lowlands, boreal heaths and meadows around summer farms, coastal heaths and naturally open areas below the treeline (Blumentrath and Hanssen 2010) Open sea extends to the boundary of the Economic Zone of Norway (i.e. 200 nautical miles from the baseline).

[2] Updated Nature Index figures have been calculated for 2012.

[3] Figure for open sea and coastal waters combined.

[4] The figure includes shallow marine waters and the littoral zone.

[5] Austrheim et al. (2010).

| | | | | | |
|---|---|---|---|---|---|
| Open lowland | 29 080 (9.0 %) | 0.40 (0.36-0.44) | ↘ | 741 | 3[6] |

Source unless otherwise specified in the footnotes: Nybø (2010).

Figures were first published for the period 1990–2010 and updated in 2012. The open sea and coastal waters show a clear positive trend, with an average 10 % rise in Nature Index values from 1990 to 2012. The Nature Index value for open lowland declined by 16 % in the same period, while wetlands showed an 8 % decline. There was a weakly negative trend for mountains and freshwaters and a weakly positive trend for forests. According to the red lists, the largest numbers of threatened species are found in forest, wetlands and cultural landscapes, while the largest numbers of threatened habitat types are found in forest and wetland ecosystems. In all, 3 682 species have been red-listed as threatened or near-threatened in Norway, of which 2061 are assumed to be negatively affected by former or current land-use changes due to physical disturbances. 503 of these species are considered naturally rare.

The *Norwegian Red List for Ecosystems and Habitat Types* assesses the status of 80 habitat types. There is no documentation that any habitat types have been lost completely, but 40 habitat types are listed as threatened (2 as critically endangered, 15 as endangered and 23 as vulnerable).

Generally, the state of Norwegian ecosystems is relatively good and, if managed wisely, they will be capable of sustaining a flow of important ecosystem services. The administrative, economic and legal framework in Norway has been identified as an important reason for this situation. However, biodiversity in Norway is under increasing pressure from a variety of sources, as indicated above. The cumulative effects are putting more pressure on the capacity of ecosystems to deliver ecosystem services, making continued monitoring even more important.

## Implementation of the Convention and the Strategic Plan for Biodiversity 2011-2020, including the Aichi Biodiversity Targets.

All Norwegian authorities, industrial sectors and other relevant actors are required to play their part in efforts to ensure the conservation and sustainable use of biodiversity. Measures taken since the adoption of Norway's first National Biodiversity Strategy and Action Plan and last national report are described in Part II of this report. Norway has strengthened the knowledge base considerably, substantially improved existing legislative instruments and developed new ones. The Nature Diversity Act and the Planning and Building Act apply

[6] Assessed at a less detailed level than habitat types in other major ecosystems.

[7] Due to challenges concerning the calculation the reference state in certain ecosystems, direct comparison between ecosystems should be avoided.

across sectors and facilitate cross-sectoral coordination. The Convention on Biological Diversity inspired the development of the Nature Diversity Act, which entered into force in 2009. The purpose of the Act is to protect biological diversity and ecological processes through conservation and sustainable use. It also introduced new provisions on alien organisms and access to genetic material.

Other cross-sectoral measures include the management plans for Norway's sea areas and the river basin management plans. Such plans also encourage coordinated use of legislative and other instruments to protect the environment, through knowledge generation, clear targets and tools for finding a balance between environmental considerations and other important public interests. The National Budget includes an indicator set designed to monitor progress towards the targets of Norway's sustainable development strategy, some of which are based on Nature Index values.

The economic instruments that are most important in relation to biodiversity can be divided into three main categories: grant schemes, compensation schemes and taxation schemes. There has so far been little development and coordination of economic instruments, which was one of the areas highlighted in the first NBSAP. In 2013, an expert committee submitted an Official Norwegian Report on the values related to ecosystem services to the Minister of the Environment. A broad-based public consultation process has been held on the report's conclusions and recommendations. The Government will use the responses that have been received in deciding how to follow up the work and recommendations of the committee.

It is an important principle that Norway's environmental policy and all management of natural resources are to be knowledge-based. In response to the emphasis on knowledge-based management in the previous NBSAP and as an underlying principle of the Nature Diversity Act, budgets for this purpose have been increased and the Norwegian Biodiversity Information Centre has been established. The Biodiversity Information Centre has developed a new classification system for Norwegian nature, with the aim of using this as a basis for mapping at all levels – landscapes, ecosystems and habitats. The Centre has also established Artskart (Species Map Service), which provides quality-controlled spatial data on species occurrence in Norway. In addition, it runs the website Artsobservasjoner.no, which provides a platform for the public to register species observations. It also publishes Norway's red lists (2010 Norwegian Red List for Species and Norwegian Red List for Ecosystems and Habitat Types). These present assessments of the risk that species will become extinct or ecosystems or habitat types disappear in Norway over time.

Biodiversity monitoring programmes now ensure that there is some monitoring of all Norway's major ecosystems. These are normally long-term programmes that provide valuable information on the fauna and flora. However, publications on the Nature Index point out that the current monitoring system is incomplete. The knowledge base on ecosystem services also needs to be improved.

The authorities maintain a wide range of databases where large amounts of information is compiled, organised by topic, and made readily accessible. They include Naturbase (spatial