# **Executive summary**

The fourth Environmental Performance Review of Norway provides an independent, evidence-based evaluation of the country's environmental performance over the past decade. Drawing on a broad range of expertise and analysis of cross-country economic and environmental data, it provides 30 country-tailored recommendations to help Norway further improve its environmental performance in line with its national and international commitments.

The first chapter summarises key environmental trends and assesses the environmental effectiveness and economic efficiency of the policy mix, including fiscal, economic, regulatory and voluntary instruments. Norway has made progress on the path towards green growth over the past decade. The country is a frontrunner in many environmental areas and invests heavily in technological development and innovation to support its green transition. It has set many ambitious national environmental targets across all sectors. Indeed, its national targets on climate mitigation are among the most ambitious worldwide, and the country aims to achieve climate neutrality by 2030. Norway has a well-functioning environmental management system, with a high level of co-operation, vibrant civic engagement in decision making and strong advisory bodies.

The second chapter offers an in-depth analysis of Norway's land use and biodiversity management. The topic was chosen by the Ministry of Climate and Environment, which saw the need for a critical, independent assessment of the country's land-use policy in a context of increased pressure on land and biodiversity. Norway is clarifying its vision of sustainable land use, even as it adopts new tools for assessment and new means of co-operation to achieve its goals. The situation remains a work in progress but is moving in the right direction. If the government implements all its plans, it could generate positive outcomes for the health of biodiversity and ecosystems and in benefits for Norwegians.

The report also examines actions taken to implement recommendations from the previous review and the results achieved. While Norway has addressed most of the previous recommendations, some of the identified challenges require sustained effort to achieve lasting results. Norway's experience offers many practical lessons for other OECD members and partner countries.

### **Key findings**

#### The environmental impact of Norway's recovery measures was mixed

The health and economic impacts of COVID-19 have been less severe in Norway than in other European countries. While its economy was initially hit hard by slumping oil prices, Norway will reach pre-pandemic per capita levels of gross domestic product (GDP) in 2022. Economic measures included a mix of time-limited compensation and subsidy schemes, temporary changes in tax rules, income protection, investments in key infrastructure sectors, increased funding in technology development and a green transition package. The cost of these measures was NOK 230 billion in 2020 and 2021 (about USD 26.7 billion), including substantial support for the oil and gas industry and the aviation sector. Thanks to the rebound in oil prices, policy makers can now turn more fully to structural challenges.

### Norway is on track to achieve many but not all Sustainable Development Goals

Norway ranked seventh on the 2021 index of countries' progress towards achieving the Sustainable Development Goals. Norway has fully achieved six goals and is making good progress towards another four. Like many other OECD countries, Norway still faces "significant" or "major" challenges for several goals, including climate action, sustainable consumption patterns and biodiversity protection. Most of the remaining challenges are related to increased environmental pressures.

### Norwegians enjoy good overall air quality

Norway's four major cities rank in the top 20 of the European City Air Quality Index. Premature death attributed to fine particulate matter (PM<sub>2.5</sub>) exposure is less than one-third the OECD average. Norway complies with EU directives on air quality standards. Its pollutant emissions and intensities of PM<sub>2.5</sub>, nitrogen oxide, sulphur oxide and black carbon have all decreased over the past decade. Except for ammonia and non-methane volatile organic compounds, Norway reached its air emission targets.

### Norway has abundant water resources but needs to tackle water losses

The country is endowed with a large number of lakes and river habitats. Nearly 90% of drinking water is withdrawn from surface water, and about 90% of Norwegians have access to treated drinking water from waterworks with high quality standards. However, up to 30% of abstracted water is estimated to leak from the drinking water supply system. The country needs to upgrade its ageing sewage and drinking water infrastructure, and adjust to new climate challenges, such as increased precipitation, floods and rising sea levels.

### Significant challenges remain to achieve a circular economy

Norway is not on track to decouple waste generation from economic growth. Waste generation reached 12.2 million tonnes in 2019, a record high and up 3% from 2018. The average Norwegian produced 772 kg of municipal waste, among the highest amounts in Europe (OECD Europe average = 499 kg per capita). Norway reduced food waste by close to 10% between 2015 and 2020. Recycling remained fairly stable overall. Norway has one of the world's highest material consumption rates, a high material footprint per capita and low material productivity. Only a small share of products is cycled back into the economy.

### Like many other countries, Norway has a way to go to reach its 2030 climate targets

Norway has decoupled greenhouse gas (GHG) emissions from GDP growth. Since 1990, emission levels have varied between 47.5 million (1992) and 56.9 million tonnes of  $CO_2$ -equivalent ( $CO_2$ -eq) (2007). Norway is expected to emit around 41.2 million tonnes of  $CO_2$ -eq annually by 2030, 20% below the 1990 level. These estimates do not include measures of the Climate Action Plan 2021-30 or the effects of Norway's participation in the EU Emissions Trading System (ETS). Outside of agriculture, climate measures are broad-based and should bring proportionate reductions in all sectors. As a small and open economy, Norway's focus on national GHG emissions provides only a partial picture of its global carbon footprint.

# The electrification of the vehicle fleet is on track, but further efforts are needed for sustainable transport systems

Norway is a world leader in Zero Emission Vehicle (ZEV) adoption and made good progress towards achieving its policy targets to electrify its vehicle fleet. Thanks to generous incentives, the market share of newly registered ZEVs reached 64.5% in 2021. For a long time, the rapidly growing demand for mobility

has outpaced progress in decarbonising the transport sector. Despite its great achievements, Norway needs to redouble efforts and make more structural changes to establish sustainable transport systems (e.g. Urban Growth Agreements).

### The share of green taxes has declined due to tax incentives for electric vehicles

Norway's share of environment-related taxes in total tax revenue and GDP is below the OECD Europe average and has decreased over time. These taxes are a victim of their own success: reducing environmentally harmful activities has undercut the tax base. This is most clearly seen through forgone tax revenues in relation to ZEVs. While energy- and pollution-related taxes have increased since 2012, transport-related taxes have declined continuously since 2004 due to the uptake of ZEVs and related decline in internal combustion vehicles. As the electric vehicle market is maturing, it makes economic sense to reduce tax incentives gradually. Norway should prioritise preparation of a place-based road-pricing system. This should cover all passenger and light-duty vehicle categories, while considering the needs of people in remote areas.

### Norway taxes a high share of CO2 emissions

Norway ranks among the top OECD countries in carbon pricing. The country aims to provide a long-term perspective on carbon pricing. To that end, it provides a strong price signal to encourage increased investments in renewable energy and low-carbon technologies. Norway's Climate Action Plan 2021-30 proposes to raise the carbon tax from NOK 590 (USD 69) per tonne of CO<sub>2</sub>-eq in 2021 to NOK 2 000 (about USD 233) by 2030. Norway's nominal carbon tax rate is among the highest in Europe and covers more than 80% of national emissions. Norway has also introduced a carbon tax on waste incineration and abolished the exemption for use of natural gas and liquefied petroleum gas in the greenhouse industry in 2022. The country has participated in the EU ETS since 2008.

### Further reduce fossil fuel support and set time-bound targets

Total fossil fuel support has been declining over the past decade and represents about 0.2% of tax revenue. In 2020, the lion's share supports petroleum and the rest natural gas. Most support measures are related to exemptions from the tax on mineral oil used for domestic shipping and fishing. Norway should set time-bound targets and systematically screen actual or proposed subsidies, including those unjustified on economic, social and environmental grounds. It should develop a plan to phase out support to fossil fuel and other environmentally harmful forms of support.

## Land-use change has exerted growing pressures on Norway's diverse and pristine landscapes

While Norway has one of the most diverse and pristine landscapes in Europe, trends in ecosystem status are unfavourable in many parts of the country. Land use and land-use change in forestry and agriculture, as well as for housing and roads, exerts substantial pressure on Norwegian biodiversity. Nearly all threatened species are affected by factors related to land use in some way.

# Norway made good progress on objective setting for ecosystem protection and related knowledge systems

Norway is clarifying its vision of sustainable land use, even as it adopts new tools for assessment and new means of co-operation to achieve its goals. The Biodiversity Action Plan and the Nature Index for Norway are important tools in this regard. Government guidance to communities has improved overall. Norway needs to continue developing a management system for ecosystem types as foreseen in the Biodiversity

Action Plan and set aggressive timelines for implementation. It can build momentum for success by regularly assessing ecological status and set specific, measurable, achievable, realistic and time-bound objectives accordingly.

### Better horizontal and vertical co-ordination can improve outcomes

Norway has used many different approaches for planning and decision making, embracing good practices that could help make land-use planning more holistic. Developing highly capable institutions that represent all stakeholders and handle conflict constructively can smooth the inevitable disagreements in land-use planning. Improved information on the cumulative effects of local land planning on the value of ecosystem services and national objectives will help county governors do their jobs better and help municipalities better reflect these concerns in their plans.

### The share of threatened species is increasing

Despite activity to protect important habitats and increasing expenditures on recovery, threatened species face slow and steady decline. Habitat loss, degradation or fragmentation as a result of human activity remain key drivers of this decline. Threatened species are found mainly in the southern regions where species diversity is high and human activity widespread. Of the nearly 3 000 threatened species in the Red List 2021, nearly 10% are critically endangered, about one-third are endangered and half are vulnerable. In 2021, about one-guarter of mammals, bird species, mosses and plants were threatened.

### The protected area system is expanding but incomplete

Protected areas make up 17% of Norway's mainland area, which is in line with the 2020 Aichi target and above the OECD average. Considerably larger portions of land area in Svalbard (65%) and Jan Mayen (nearly all) have been protected for several decades. However, protected areas do not represent all landscape types, and forest protection is about half the national target of 10%. Most areas needing additional protection are in the south. Moreover, nearly one-third of protected areas are at risk of degradation and require additional action to secure their conservation values. Norway is well below the OECD average for marine protected areas and failed to meet the Aichi target.

#### More is needed to promote climate-smart agriculture

Agricultural land suitable for arable crops is limited and benefits from many subsidies, among the highest in the OECD. Agricultural land use is largely determined by the small share of land that is technically feasible for farming combined with national policies to maintain and distribute production. Farmers remain exempt from GHG emission taxes and agriculture is not part of the EU ETS. Norway's levels of nitrogen and phosphorus surpluses, which place pressure on soil water and air quality, are among the highest in the OECD. It should redirect support from income and production objectives towards stronger incentives for farmers to improve agri-environmental outcomes and develop climate-smart agriculture. In this way, farmers would help restore the ecosystem value of agricultural landscapes.



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