

## Countries and regions

# Finland



## Main themes and sectors addressed in the national State of Environment report

'State of the Environment in Finland 2013'<sup>[1]</sup> is a general report covering broad environment issues. It has eight main topics:

- natural resources,
- climate change and energy,
- communities and transport,
- air pollutants,
- fresh water and the sea,
- biodiversity,
- chemicals and hazardous substances,
- and green economy.

In parallel with this national report, the 13 regional Centres for Economic Development, Transport and the Environment (ELY Centres) have published their own regional environment reviews.

Nearly every indicator in the report includes an assessment of both the long-term and the short-term trend as well as of the situation in relation to the targets.

The report is a response to the requirement of the EU Directive on Public Access to Environmental Information. Data sources included environmental administration, several other authorities and research institutes.

## Key findings of the State of Environment report

Many of the indicators show an improvement in the state of the environment. Air and water pollution have clearly declined over recent decades. Trends earlier seen as irreversible, e.g. increases in private car use and energy consumption, are showing signs of leveling off.

However, serious problems like climate change and biodiversity loss remain unresolved. Despite deadlines aiming to halt the decline of biodiversity, the target has not been reached. Approximately one tenth of Finnish species were classified as threatened in 2010. More than one third of these are forest species. Nature reserves and wilderness areas cover some 9% of Finland's surface area, which is close to the international average.

Over the last hundred years, the average temperature has increased by approximately one degree in Finland. Warming has been most intense in spring time.

Emissions are decreasing, mainly as a consequence of advances in fuel technology and improvements in industrial processes and treatment technologies. A considerable share of Finland's economic growth in recent decades has been based on natural resources from overseas which explains the reduction in local impacts.

Due to better control, the sulphur and nitrogen oxide emissions have declined by almost one half and by more than three quarters since 1990, respectively. Measures taken to reduce ammonia emissions have not been as effective. Emissions of compounds which form ozone in the troposphere have declined since 1990 but particle pollution has not declined. In general, days with poor air quality are rare in Finland.

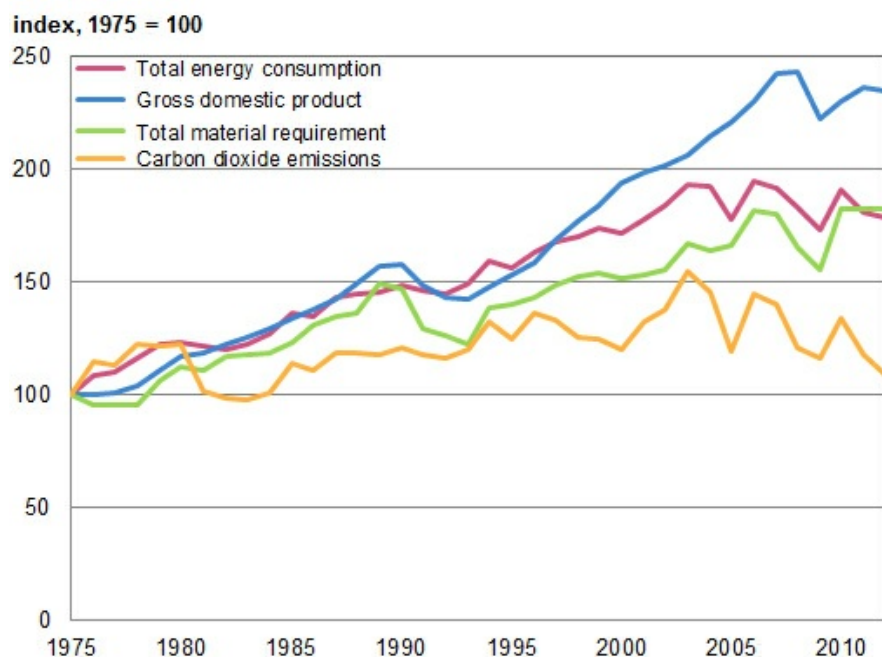
Traffic volumes have increased but most traffic-related emissions have clearly fallen since the early 1980s with the exception of carbon dioxide emissions which continued to grow until 2005. One factor slowing the decrease in emissions is that Finns are commuting longer distances: the average distance from home to work has increased by about 20% between 2000 and 2010 and doubled since 1985.

Discharges from industry and communities have reduced sharply since 1980 but rivers still carry high quantities of nutrients. In addition, since the 1990s, the nutrient balance of cropland has declined in Finland, with the phosphorus balance in particular falling by up to one quarter from 1996 to 2011.

The ecological status of lakes and rivers in Northern Finland, and big lakes throughout the country, is mainly good or high. Many small lakes in Southern Finland suffer from eutrophication. High nutrient concentrations are also degrading the status of rivers. On the coast, the status of the Archipelago Sea and the Gulf of Finland is alarming. However, the status of the easternmost part of the Gulf of Finland has improved in recent years, thanks to water protection measures and more efficient wastewater treatment in St. Petersburg in particular.

In recent years the use of natural resources has been reduced by producing goods and services using smaller amounts of resources with lower emissions. These increases in eco-efficiency have been most pronounced since the mid-1990s (Figure 1).

**Figure 1. Trends in gross domestic product, total energy consumption, carbon dioxide emissions and total material requirement, 1975–2012**



Source: Statistics Finland, 2013.

## Main policy responses to key environmental challenges and concerns

The key objectives of the 'National Energy and Climate Strategy'<sup>[2]</sup> include ensuring that the national targets for 2020 are achieved and preparing a pathway towards meeting the long-term energy and climate objectives set by the EU. The new strategy entails a programme to reduce oil dependence. The long-term goal is a carbon-neutral society: the roadmap towards 2050 involves better energy-efficiency and the use of renewable energy.

The Strategy for the Conservation and Sustainable Use of Biodiversity in Finland for the period 2012–2020<sup>[3]</sup> has as the main goal to halt biodiversity loss in Finland by 2020. It strongly emphasizes economic and cultural values related to biodiversity in decision-making concerning the use of natural resources. The strategy's five objectives focus on the mainstreaming of environmental issues across society, the introduction of new participants in the work to advance environmental causes, a decision-making process based on robust research data, and Finland's responsibility for the global environment. Particular attention is paid to sustainable use of natural resources. The Strategy is accompanied by an Action Plan<sup>[4]</sup>.

The revised Programme to Promote Sustainable Consumption and Production, 'More from Less – Wisely'<sup>[5]</sup> aims to reduce the environmental impacts and greenhouse gas emissions of households and the public sector. It proposes that the state and municipalities set an example by creating the preconditions for more-sustainable solutions. The programme promotes energy smart and comfortable living, high-quality food without waste, and smooth and environmentally friendly transport. In June 2013 the Government gave a resolution<sup>[6]</sup> on the basis of the programme, and also a resolution<sup>[7]</sup> about promoting sustainable environmental and energy solutions (Cleantech) in the administration.

A 'Strategy for sustainable development'<sup>[8]</sup> was published in 2006. It has been assessed since then and in 2012 the process resulted in a commitment: 'The Finland we want by 2050 – Society's commitment to sustainable development'<sup>[9]</sup>. The main objectives of the commitment are equal prospects for well-being, a participatory society for citizens, sustainable work, sustainable local communities, a carbon-neutral society, and an economy that is resource-wise.

The Finnish Government's resolution 'Programme for Implementation of River Basin Management Plans 2010–2015'<sup>[10]</sup> in 2011 followed the approval of all the seven river basin management plans (RBMPs) in 2009. The aim is to improve considerably the ecological status of the waters. The Implementation Programme is based on the RBMPs and defines the national level priorities amongst the measures.

Finland's Marine Strategy<sup>[11]</sup> reflects the importance of a good status of the Baltic Sea. The first phase of the marine strategy was addressed in a Government resolution<sup>[12]</sup> in 2012. There are now five marine programmes and action plans<sup>[13],[14]</sup>.

The Environmental Protection Act<sup>[15]</sup> includes air quality. The Air Quality Programme 2010<sup>[16]</sup> is the National Programme for the implementation of Directive 2001/81/EU on national ceilings for certain atmospheric pollutants. The Programme defines the measures to reduce emissions e.g. from energy production, transport, agriculture, and industry.

The existing Programmes and strategies<sup>[17]</sup> related to land use and building address several environmental issues like energy efficiency, the transparency of land use planning, biodiversity and scenic values, ecosystem services and sustainable natural resources, cultural environment, environmental noise levels and traffic systems.

## Country specific issues

The main issue in Finnish environmental policy in the next few decades will be the concept of carbon-neutrality. The goal of the Finnish government is an 80–95 % reduction in greenhouse gas emissions by 2050. This means eliminating more or less all emissions from the energy consumption. An Energy and Climate roadmap 2050<sup>[18]</sup> to determine actions needed to meet this goal is under preparation.

At the same time, a number of municipalities in Finland are seeking for a faster timetable for achieving carbon-neutrality. Currently 19 municipalities have joined the Carbon Neutral Municipalities project<sup>[19]</sup>, and made a commitment to an 80% emission reduction by 2030.

A key question, when targeting carbon-neutrality, will be how to prevent the loss of biodiversity when the pressure on utilizing the country's forests and other renewable natural resources is expected to increase.

In addition, topics like ecosystem services, green economy, resource efficiency, water quality, and urban environment will be essential also in the future.

SOER 2015 country briefings provide an overview of state of the environment across 39 European countries. They are part of the EEA's report SOER 2015, addressing the state of, trends in and prospects for the environment in Europe. The EEA's task is to provide timely, targeted, relevant and reliable information on Europe's environment.

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