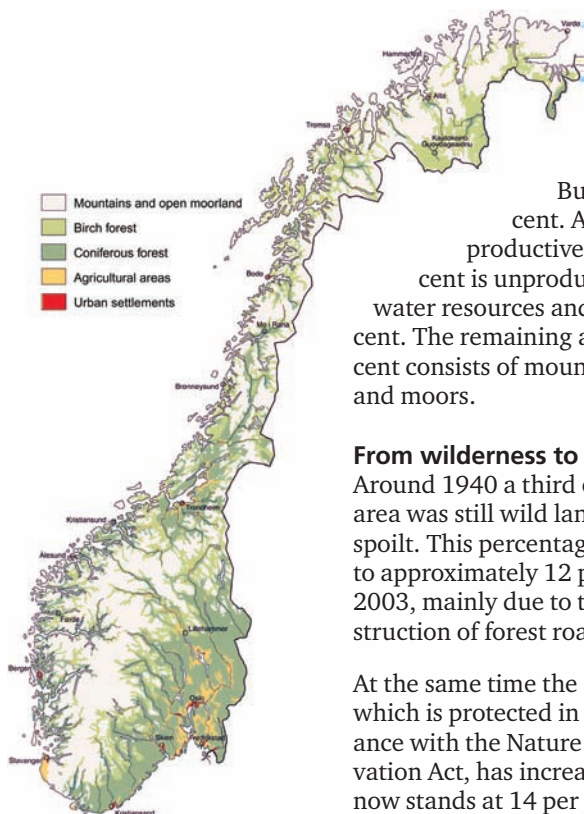


The electric society



Mountains and forests

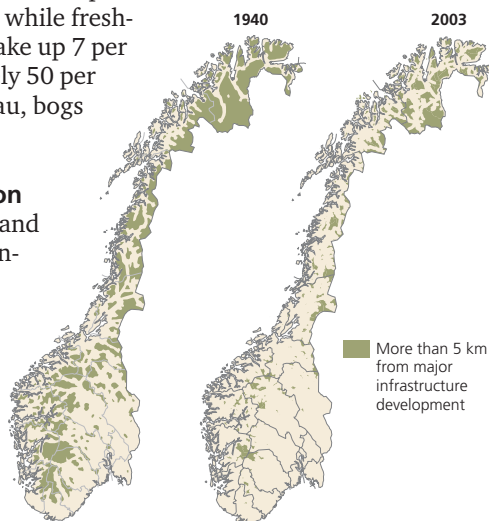
With a total area of 324 000 km² and 4.8 million inhabitants, Norway is the least densely populated country in Europe after Iceland, with 16 inhabitants per km².

Built-up land (including roads) amounts to just over 1 per cent. A total of 3 per cent is agricultural land and 24 per cent productive forest. A further 14 per cent is unproductive forest, while freshwater resources and glaciers make up 7 per cent. The remaining approximately 50 per cent consists of mountains, plateau, bogs and moors.

From wilderness to conservation

Around 1940 a third of the total land area was still wild landscape or unspoilt. This percentage had fallen to approximately 12 per cent by 2003, mainly due to the construction of forest roads etc.

At the same time the area, which is protected in accordance with the Nature Conservation Act, has increased and now stands at 14 per cent.



Source: Directorate for Nature Management and Centre for GIS & Earth Observation.

Electricity consumption per inhabitant in selected countries. kWh. 2006

Iceland	31 306
Norway	24 295
Finland	17 178
Canada	16 766
Sweden	15 230
USA	13 515
France	7 585
Germany	7 175
Denmark	6 864
Poland	3 586

Source: IEA.

High electricity consumption

Electricity is an important energy source in a mountainous country like Norway with large hydropower resources. Norway has the world's second highest electricity consumption per capita: 24 295 kWh. This is almost three times greater than the OECD average, which is approximately 8 400 kWh. This figure includes the electricity consumption in all sectors, not just the household sector.

Compared with other countries, electricity accounts for a relatively high share of Norway's energy consumption – almost 50 per cent. This is obviously related to the fact that electricity has traditionally been relatively cheap. In 2007, the price per kWh for households was still low compared to many other European countries.

Price¹ of unleaded petrol (95 octane) and household electricity in selected countries. 2007

	Petrol (NOK/litres)	Electricity (NOK/kWh)
Norway	11.68	0.77
Denmark	10.49	2.02
Finland	10.41	0.85
Netherlands	11.70	1.67
Italy	10.41	1.51
UK	11.04	1.28
Switzerland	8.22	0.80
Austria	8.99	1.25
Poland	8.92	0.88

¹ Including all taxes.

Source: IEA and Statistics Norway.

Average energy consumption

The high electricity consumption, however, does not mean that Norway has a particularly high total energy consumption.

Energy consumption has increased by more than 40 per cent since 1976 – from just over 600 petajoules to around 850 in 2006. Per capita, Norway is slightly above the average for western countries, but at a lower level than Sweden and Finland.

Paradoxically, while Norway's production of oil has steadily increased, there has been a transition from oil products to electricity use, which now accounts for slightly less than 50 per cent of total energy consumption. While there has been a substantial decline in the stationary oil consumption (e.g. for heating) the amount of oil used for transport has increased somewhat. The use of gas, district heating and solid fuel has also increased.

Growth in emissions to air ...

Increased production of oil and gas and more road traffic lead to increased emissions to air. Norwegian emissions of greenhouse gases increased by 10 per cent from 1990 – which is the basis year for the Kyoto Protocol – to 2007. The growth in emissions was lower than the economic growth (measured as the GDP in fixed prices) during the period.

CO₂ accounts for about 80 per cent of all emissions of greenhouse gases. The most important sources of CO₂ emissions are road traffic, oil and gas extraction, industrial combustion and process emissions from the manufacture of metals.

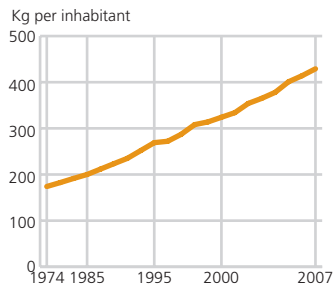
According to the Kyoto Protocol, Norwegian emissions – taking into account the so-called Kyoto mechanisms – can only increase by 1 per cent more than the 1990 emissions for each of the years 2008-2012.

... and more waste

Economic growth and increased prosperity also generate huge amounts of waste. In 2007 we produced a total of 10.7 million tonnes of waste; in other words, almost 2 tonnes per person. Since 1995, there has been an increase of more than 3 million tonnes. The increase in the volume of waste in recent years has been greater than the growth in the GDP.

A total of 36 per cent of the waste is from manufacturing while the other industries generate about 40 per cent. The remainder is household waste, which represents the biggest increase. In 2007, each person produced on average 429 kg of household waste. In 2007, about half of all household waste was sorted for recycling.

Household waste

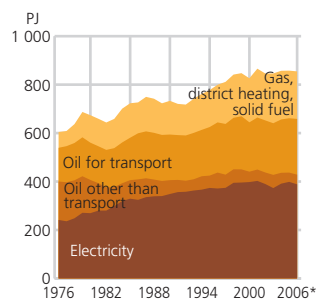


Energy consumption per inhabitant in selected countries. Toe. 2006

Iceland	14.2
Canada	8.3
USA	7.7
Finland	7.1
Sweden	5.7
Norway	5.6
Netherlands	4.9
France	4.3
Denmark	3.9
Poland	2.6

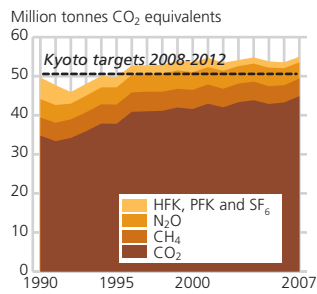
Source IEA.

Energy by type¹. Petajoules



¹ Excluding the energy sectors and ocean transport.

Emissions of greenhouse gases



Source: Emission inventory, Statistics Norway and The Norwegian Pollution Control Authority.