

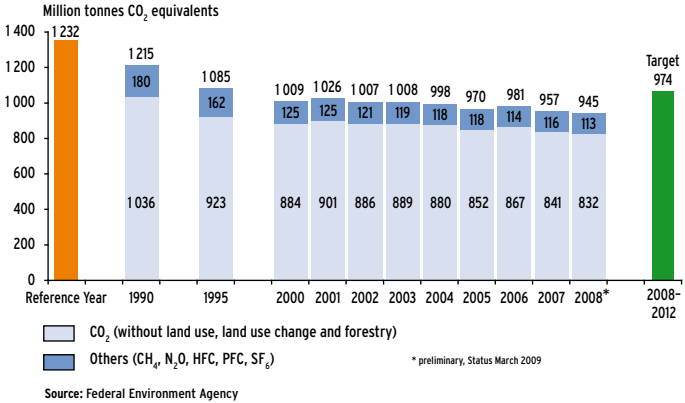
Facts on the environment

Excerpt from "Data on the environment"

Edition 2009

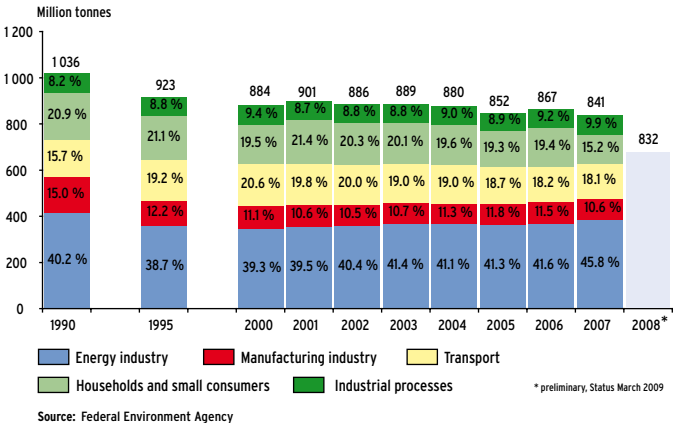


Emissions of six greenhouse gases in Germany referenced in the Kyoto Protocol



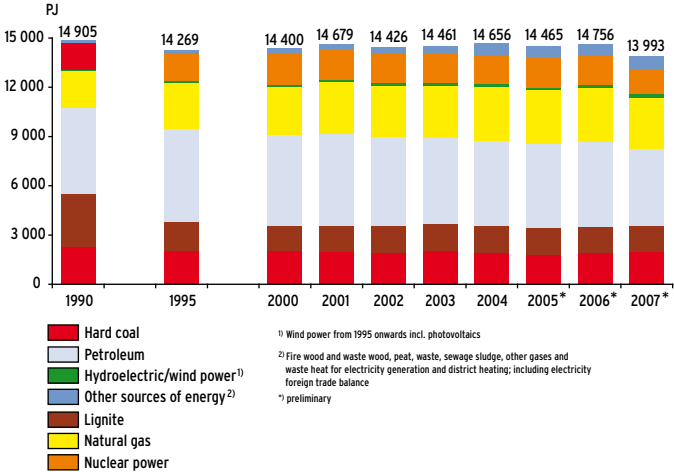
With a 23.3 % decrease compared to the reference year, Germany already reached the Kyoto protocol target in 2008, and is well below the permissible emissions volume.

Carbon dioxide (CO₂) emissions according to sources (without land use, land use change and forestry)



Carbon dioxide emissions decrease almost continuously. The reductions are in equal parts due to economic restructuring in the new Federal States followed by a decrease in lignite use, and the active climate protection policy of the Federal Government.

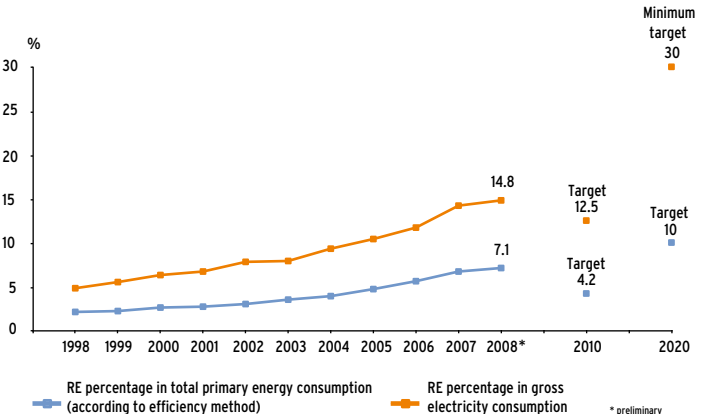
Primary energy consumption in Germany according to energy sources



Source: Energy Balances Working Group

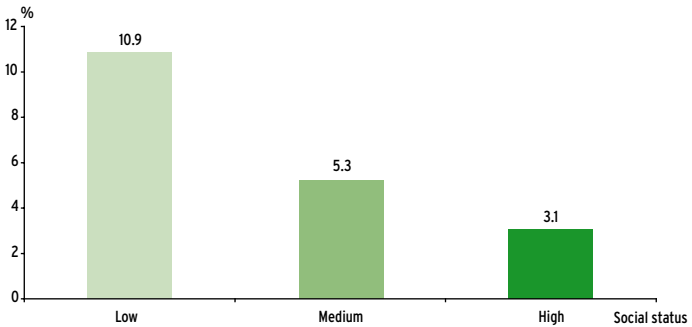
Despite economic growth, primary energy consumption in Germany has been in a slightly declining trend since the beginning of the 1990s. Since 1990 significant changes have taken place in the energy source mix. Particularly remarkable is the halving of lignite use between 1990 and 1997, an increase of natural gas consumption by about a third, and the substantial growth of renewable sources of energy. That reduces emissions and creates jobs: in 2007 approximately 250,000 people were employed in the renewable energy industry.

Share of renewable energy (RE) in primary energy consumption and gross electricity consumption



Sources: Federal Ministry for the Environment, Nature Conservation and Nuclear Safety

Disturbance by road traffic noise (during the day) of 3 to 14-year olds according to social status¹⁾

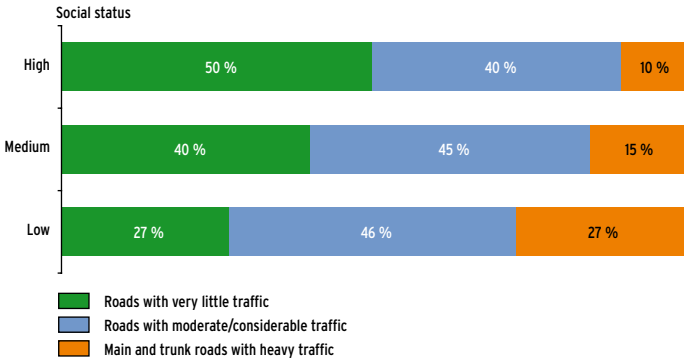


¹⁾ Winkler index based on parents' education, income and professional status

Source: Federal Environment Agency

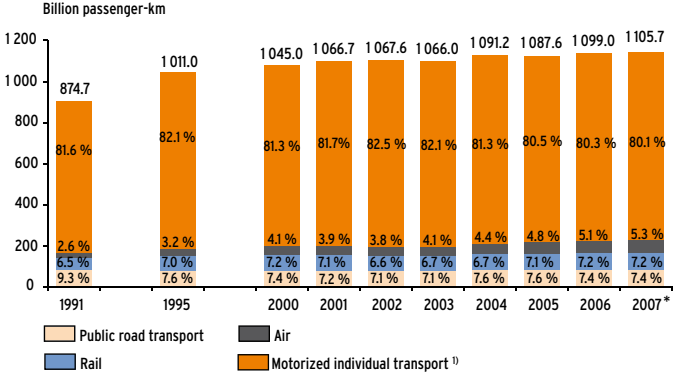
In Germany, the perception of disturbance by road traffic noise and traffic related air pollutants, as well as the actual exposure to noise, are both higher for people of low social status. Since they lack the necessary economic means, they are often unable to avoid such stress.

Housing situation of 3-14-year olds according to social status



Source: Federal Environment Agency

Modal split in passenger transport



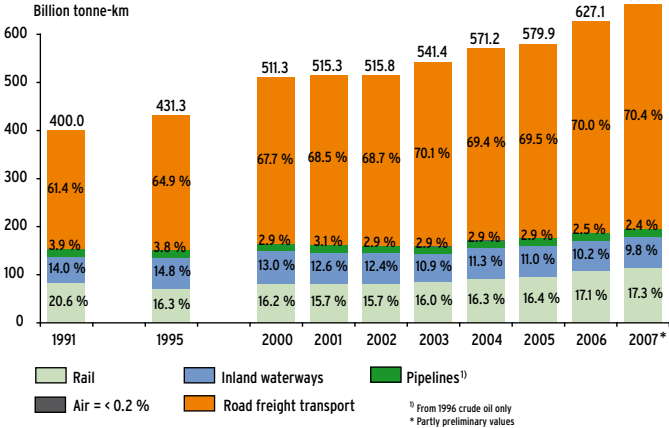
¹⁾ From 1994 amended method, which results in higher transport figures

* Partly preliminary values

Sources: Federal Ministry of Transport, Building and Urban Affairs

Motorized individual transport constitutes the largest share of personal transport. Air traffic exhibits the highest growth rate. For sustainable transport, more environmentally friendly modes of transport such as rail and public road transport should be used more extensively.

Modal split in freight transport



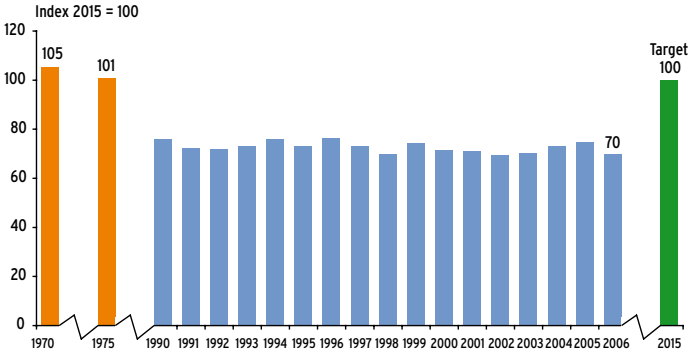
¹⁾ From 1996 crude oil only

* Partly preliminary values

Sources: Federal Ministry of Transport, Building and Urban Affairs

The growth of freight transport performance in Germany is mainly due to the increase in road freight. Ideally though, goods should be transported using more environmentally friendly modes of transport such as inland waterways and rail. Therefore, the Federal Government wants to increase the share of these two modes of transporting goods to a combined 39 % by 2015.

Diversity of species and landscape quality*

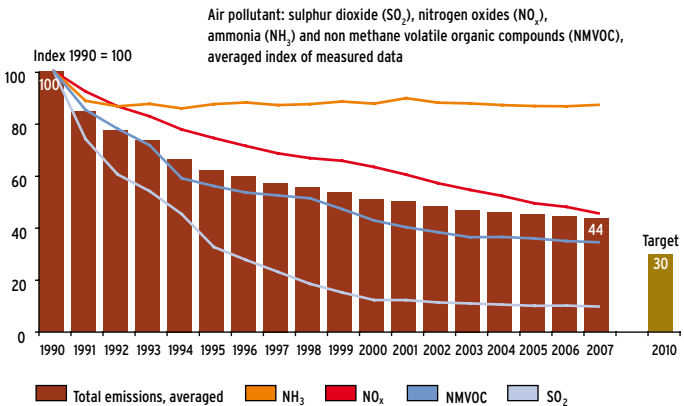


* The historical values for 1970 and 1975 are reconstructed. Values for some bird species in coastal and sea habitats, inland waters and the Alps for individual years have been extrapolated.

Source: Federal Agency for Nature Conservation

The indicator for species diversity and landscape quality for 1990 was clearly below the values reconstructed for 1970 and 1975. For the years after 1990 the indicator shows neither positive nor negative trends. If this development continues, the goal cannot be achieved without substantial additional efforts in all public policy areas concerned with environmental protection.

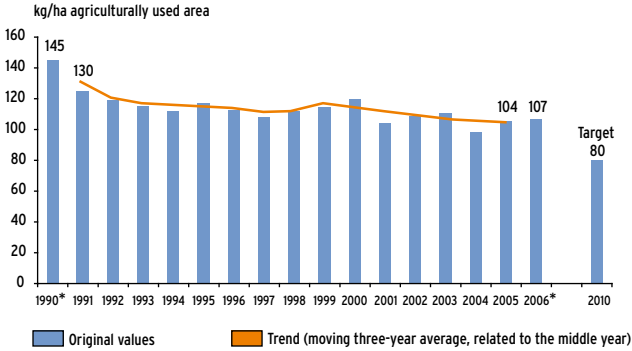
Airborne pollutant index for emissions



Source: Federal Environment Agency

Compared to 1990, the air pollutant index exhibits a 56 % decrease of the averaged proportional emissions of the indexed gases. Thus 80 % of the indicator objectives has been achieved.

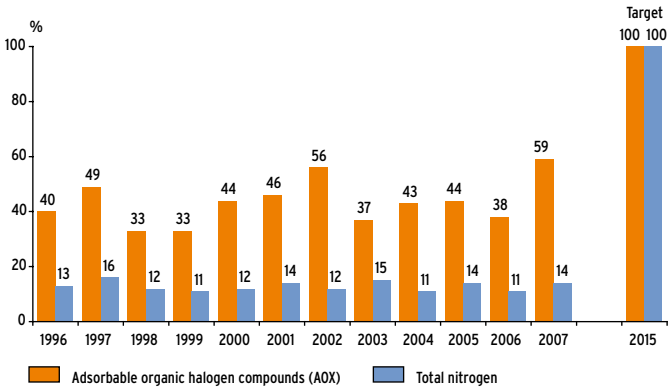
Nitrogen surplus in total balance in Germany



Sources: Federal Environment Agency / Gießen University, Julius Kühn Institute Braunschweig

Nitrogen surplus often leads to environmental problems: pollution of the groundwater, eutrophication of waters, formation of greenhouse and acidifying gases, and decrease in species diversity in nutrient-poor biotopes. For the period from 1991 to 2005 (moving three-year average) little more than half of the desired reduction in agriculture for 2010 was achieved.

Share of monitoring stations at rivers classified as chemical water quality class II or better

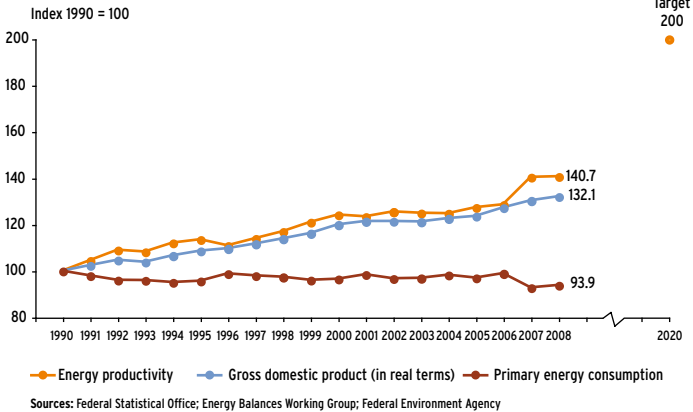


Source: Federal Environment Agency

While water quality improvement can be observed for adsorbable organic halogen compounds (AOX), which mainly originate from industry, the development of total nitrogen concentrations in water is not satisfactory. In the future, water protection measures are especially necessary in respect to nonpoint substance contamination, e.g. from agriculture – most importantly the reduction of nitrogen surplus.

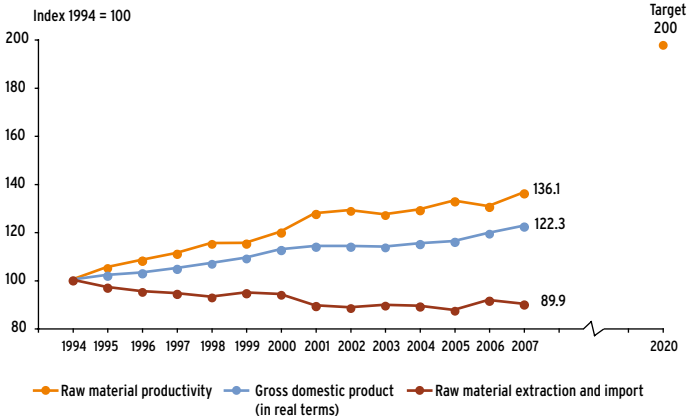
INTENSITY OF RESOURCE USE

Energy productivity



The rise in energy productivity stems from a weak decrease in primary energy consumption of only 6.1 % since 1990 with simultaneous growth in the gross domestic product of around 32.1 %. The speed of increase in energy productivity since 2000 is not sufficient to achieve the goal of the Federal Government.

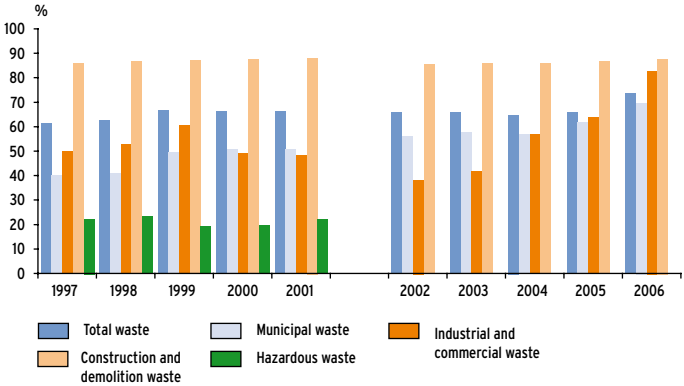
Raw material productivity



The increase in raw material productivity must be accelerated in order to achieve the objective. The development between 1994 and 2007 is mainly due to changes in overall economic structure, namely a development towards less raw material-intensive industries in the service sector. It is also significant that materials usage is increasingly covered by imports. Environmental contamination attributed to the extraction and processing of raw materials is thus shifted abroad.

INTENSITY OF RESOURCE USE

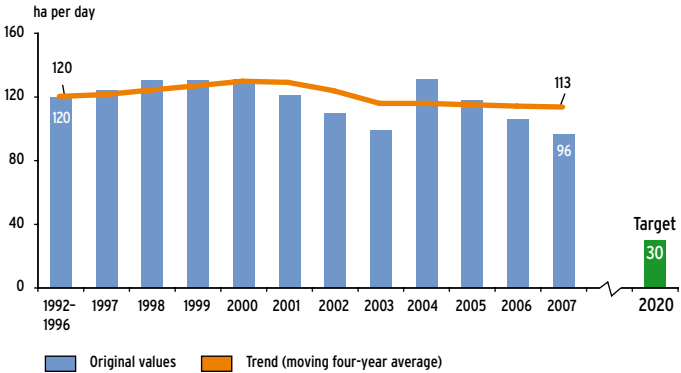
Recovery rates of main waste types



Sources: Federal Statistical Office; Federal Environment Agency

Germany's considerable recovery efforts have produced good results. In 2006 Germany recovered nearly three quarters of its waste (74 %).

Increase in settlement and transport area



Sources: Federal Statistical Office, Federal Office for Building and Regional Planning

The daily increase in settlement and transport area, approximately half of which is sealed, is slowing down, but is clearly still too high. The decrease is mainly based on the general economic decline which has led to an investment decrease in real estate development. However, a real trend reversal cannot be observed. In order to reach the target, a comprehensive re-orientation of settlement and transport policy at federal, Federal States and municipal levels is necessary.

>> ENVIRONMENTAL INFORMATION FROM A SINGLE SOURCE

On the internet at:

www.umweltbundesamt.de/daten-zur-umwelt

Data on the environment. State of the environment in Germany
(Comprehensive information, background, further tips)

Environmental Core Indicator System
(Selected parameters for quick overview)

Brochures and "Facts on the environment" for download

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