

Air quality in Europe

Introduction

This report presents an overview and analysis of air quality in Europe, from around 2002 to 2011. Air quality remains an important issue for public health, the economy and the environment. Exposure to air pollution is largely a multi-pollutant process and poor air quality has a significant impact on health, as it contributes to respiratory and cardiovascular diseases. It has an impact on the economy through medical costs and lost productivity, and it has an impact on the environment as well, affecting directly the health of the ecosystems, or through impact on the quality of water and soil. European policies of air quality have had considerable success in the past in reducing air pollution.

What are the main effects of air pollution?

The strongest effects of poor air quality have been felt first in urban areas, where they cause health problems, and second in ecosystems, where air pollution impairs vegetation growth and where eutrophication due to air pollution has led to biodiversity loss.

What are the sources of air pollution?

Almost economic and societal activities produce air pollutants in one form or another. Policies implemented at the European, national and sectorial level have over time resulted in decreased emissions of many air pollutants and have led to acceptable air quality levels across Europe for some pollutants, e.g. carbon monoxide (CO) and lead (Pb). Nevertheless, road transport, industry, power plants, households and agricultural activities continue to emit significant amounts of air pollution. Biomass (from agriculture and forestry or coal) combustion has become a more important source of air pollution. This is because wood burning is often relatively cheap, and is thought to be an environmentally friendly source of energy since it is renewable and carbon-neutral.

How is air pollution regulated in Europe?

There are emission regulations on several pollutants by sector. There are emission standards for the transport sector, for instance, and directives for industrial emissions. There are also regulatory limits to the concentration in the air of harmful pollutants. These are legally binding, and have helped reduce the concentration of key pollutants in the air.



Conclusion

Emissions of the main air pollutants in Europe have declined in the period 2002–2011. This resulted in improved air quality across the region — at least with respect to certain pollutants. However, a significant proportion of Europe's population lives in cities, where air quality standards are still exceeded regularly. Particulate matter (PM) and ozone (O₃) pollution are associated with serious health risks, and exposure to high levels of organic pollutants, in particular polycyclic aromatic hydrocarbons (PAHs) is a growing health concern in Europe.

The long-term EU objective: 'to achieve levels of air quality that do not result in unacceptable impacts on, and risks to, human health and the environment' is still far from being achieved. European citizens often breathe air that does not meet the European regulatory standards. The current pollution levels clearly impact on large parts of the urban population.

You can find this summary, along with a more detailed one on the GreenFacts website at:

<http://www.greenfacts.org/en/air-quality-europe/index.htm>

The source document for this summary can be found on the EEA website:

<http://www.eea.europa.eu/>