

Nitrogen oxides emissions

[SELECT](#) [1]

Nitric oxide (NO) and nitrogen dioxide (NO₂) are together referred to as nitrogen oxides (NOX). Combustion of fossil fuels is by far the dominant source of NOX emissions. The emissions are not dependent solely on the amount of nitrogen in the fuel but also on the air - fuel mix ratio. High temperatures and oxidation-rich conditions generally favour NOX formation in combustion. NOX contributes to acid deposition and eutrophication which in turn can lead to potential changes occurring in soil and water quality. The subsequent impacts of acid deposition can be significant, including adverse effects on aquatic ecosystems in rivers and lakes and damage to forests, crops and other vegetation. Eutrophication can lead to severe reductions in water quality with subsequent impacts including decreased biodiversity, changes in species composition and dominance, and toxicity effects. (Definition EEA, <http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides...> [2])

Data host:

European Environment Agency

Unit of Measurement:

Gigagram (Gg)

Link to Data:

<http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emi...> [3]

Description to get data:

http://ec.europa.eu/eurostat/web/products-datasets/-/hid_tsdpc270, but no data found there

Type of Indicator source:

- [Intergovernmental Organisation](#) [4]

Geographical Coverage:

Austria
Belgium
Bulgaria
Croatia
Cyprus
Czech Republic
Denmark
Estonia
Finland
France
Germany
Hungary
Ireland
Italy

Latvia
Lithuania
Luxembourg
Malta
Netherlands
Poland
Portugal
Romania
Slovakia
Slovenia
Spain
Sweden
United Kingdom

Geographical Level:

- [European Union](#) [5]

Same/similar indicators appears in the following sets:

- [EEA's environmental indicators/Environmental Pressure indicators](#) [6]

Methodological transparency:

- [Complete methodology available](#) [7]

Indicator relation: Indicator: [Emissions of acidifying substances](#) [8]
Type of relation: Similar indicator

Indicator: [Emissions of nitrogen and phosphorus from UWWT plants](#) [9]
Type of relation: Similar indicator

Temporal Coverage:

1990 to 2011

Frequency of Updates:

- [annually](#) [10]

Indicator developer:

European Environment Agency

Link to Methodology:

[Methodology references](#) [11]

Aggregation level of indicator:

- [Single](#) [12]

Data quality assesment:

- [Assessed by statistical office](#) [13]

Publishing delay:

- [more than 3 years](#) [14]

Link to data quality assessment:

[EEA data references](#) [15]

Contribution to the green economy:

It is NO₂ that is associated with adverse affects on human health, as at high concentrations it can cause inflammation of the airways. NO₂ also contributes to the formation of secondary particulate aerosols and tropospheric ozone (O₃) in the atmosphere - both are important air pollutants due to their adverse impacts on human health. Hence, a decreasing trend could show a transitions towards a Green Economy.

Cost of accessing data:

- [free of charge](#) [16]

Potential misinterpretation: Other substances than No₂ cause similar effects to human health and soil productivity.

Related Indicator: [Emissions of acidifying substances](#) [8]

Potential misinterpretation: In Europe: eventually positives trends in the overall nitrogen emissions (achieved by the energy production sector) could outshine the effects of agriculture on nitrogen emissions.

Related Indicator: [Agriculture: nitrogen balance](#) [17]

Potential misinterpretation: Are there less nitrogen emissions, caused by industry due to a shifting of industrial sites/less activities?

Related Indicator: [Industry, value added \(% of GDP\)](#) [18]

Use of indicator in mandates, international agreements or legislation:

Name of agreement or policy:

EU- DG Environment

Name of body or organisation:

European Union

Link to body or organisation:

[National Emission Ceilings Directive 2001/81/EC \(NECD\)](#) [19]

Section or page to find indicator:

<http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emissions-1/assessment.2010-08-19.0140149032-3>



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Source URL: <https://measuring-progress.org/nitrogen-oxides-emissions>

Links

- [1] <https://measuring-progress.org/coll-add/nojs/725>
- [2] http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emissions-1/assessment.2010-08-19.0140149032-3#data_specifications,9-2-2015
- [3] <http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emissions-1/assessment.2010-08-19.0140149032-3>
- [4] <https://measuring-progress.org/taxonomy/term/52>
- [5] <https://measuring-progress.org/taxonomy/term/32>
- [6] <https://measuring-progress.org/taxonomy/term/65>
- [7] <https://measuring-progress.org/taxonomy/term/34>
- [8] <https://measuring-progress.org/emissions-acidifying-substances>
- [9] <https://measuring-progress.org/emissions-nitrogen-and-phosphorus-uwwt-plants>
- [10] <https://measuring-progress.org/taxonomy/term/17>
- [11] <http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emissions-1>
- [12] <https://measuring-progress.org/taxonomy/term/27>
- [13] <https://measuring-progress.org/taxonomy/term/38>
- [14] <https://measuring-progress.org/taxonomy/term/26>
- [15] http://www.eea.europa.eu/data-and-maps/indicators/eea-32-nitrogen-oxides-nox-emissions-1/#general_metadata
- [16] <https://measuring-progress.org/taxonomy/term/9>
- [17] <https://measuring-progress.org/agriculture-nitrogen-balance>
- [18] <https://measuring-progress.org/industry-value-added-gdp>
- [19] <http://ec.europa.eu/environment/air/pollutants/ceilings.htm>