



EUROSTAT QUALITY PROFILE

Indicator (definition)	Urban population exposure to air pollution by ozone – population weighted sum of maximum daily 8-hour mean ozone concentration above a threshold
Eurostat Unit	E-3: Environment statistics
Other Commission DGs	DG ENV
European Statistical System Working Group (WG)	Working Group on Environment Statistics
Date	2 May 2007

1. Overall assessment of accuracy and comparability (Description of quality grades under the following link: http://circa.europa.eu/Members/irc/dsis/structind/library?l=/general_information/quality_profiles/annex_enpdf/EN_1.0_&a=d)

A
 B
 C
 Indicator to be developed

Data is collected from reliable sources applying high standards with regard to the methodology. However, there are differences Europe-wide regarding locations as well as classification of background stations and measuring methods; in some countries the number of stations is very limited. Therefore, comparability across countries is restricted due to the differences in the quality of the national monitoring station networks.

2. Objective and relevance of the indicator:

The indicator shows the population weighted yearly sum of maximum daily 8-hour mean ozone concentrations above a threshold (70 microgram Ozone per m³) at the urban and sub-urban background stations in agglomerations. Ozone is a strong photochemical oxidant, which causes serious health problems and damage to the ecosystem, agricultural crops and materials.

The Brussels European Council in March 2003 stated that to achieve the Lisbon Strategy goals requires every Member State to perform to its full economic potential; but this must also go hand in hand with improvements in our environment and quality of life. Thus, pressing ahead with action in the environmental field remains as important as ever. This is an important factor for innovation and the introduction of new technologies, which lead to growth and employment. Environmental targets will work as a catalyst for innovation and modernisation in key sectors such as energy and transport and promote new investments in clean and more resource-efficient technologies.

Restriction of the indicator's relevance and other characteristics which may lead to restrictions in using it in monitoring and reporting

The indicator depends on meteorological and natural conditions (formation of ozone by photochemical reactions in the atmosphere).

3. Data availability: details

(t₁: earliest reference year available; t₂: latest reference year available in May 2007)

	Member States	Candidate and Acceding Countries	US and Japan	EEA-EFTA ¹
t ₁	1999–16 EU Member States (no data for BG, EE, IE, CY, LV, LT, LU, HU, MT, SK, RO)	-	-	-
t ₂	2004 -17 EU Member States (no data for BG, EE, IE, CY, LU, LV, LT, HU, MT, RO, SI)	-	-	-

¹ While being a member of the EEA, Liechtenstein has complete or partial exemptions from several statistical requirements due to its size. Thus, Liechtenstein is excluded from this overview as most of the data for structural indicators are missing.

4. Overall accuracy

High

Restricted

(sources, errors,
methodology, etc.)

The data is measured and collected under the Air Quality Framework Directive. The directive determines rules for the measurements and ensures accuracy of the data.

Based on the annual submissions of Member States' measured concentrations, the data is processed by the European Environmental Agency (EEA) and the Topic Centre on Air and Climate Change (ETC_ACC), and provided further to Eurostat.

Representativity of the monitoring stations is limited to the neighbourhood of their locations, and although there are strong arguments that the trends are followed also in similar locations all over the country, this can not be fully substantiated.

In some countries there is a very limited number of stations (in some cases only one) and the corresponding figures should be interpreted very carefully.

5. Comparability across countries

High

Restricted

There are differences Europe-wide regarding locations as well as classification of background stations and measuring methods, with implications in terms of quality in the national monitoring station network. Therefore comparisons across countries are not straightforward.

EU-25 estimate is published even though 8 member states have no data available, as these member states have a relatively small weight (no estimation for BG and RO).

6. Comparability over time

High

Restricted

Although data before 1999 is available, they are not published because the number of monitoring stations increased strongly over time. From 1999 onwards it is a stable set of monitoring stations that ensures comparability over time.

7. Development perspective for improving the quality of this indicator (including as far as possible an indication of the burden on Member States and respondents.)

The national monitoring station networks differ in quality; no data exists for BG, EE, IE, CY, LU, LV, LT, HU, MT, RO, and SI. Moreover, the representativity of the monitoring stations is limited and the concentrations of air pollutants are affected by the meteorological conditions. Modelled data using assimilation techniques can improve the quality of the indicator considerably.

8. Contribution to the coherence of the set/potential to qualify for an integrated policy analysis

Relevant European legislation:

Council Directive 96/62/EC of 27 September 1996 on ambient air quality assessment and management

Directive 2002/3/EC of the European Parliament and of the Council of 12 February 2002 relating to ozone in ambient air

Council Decision of 27 January 1997 establishing a reciprocal exchange of information and data from networks and individual stations measuring ambient air pollution within the Member States (97/101/EC) amended by the Commission Decision 2001/752/EC

Commission Decision 2004/461/EC of 29 April 2004 laying down a questionnaire to be used for annual reporting on ambient air quality assessment under Council Directives 96/62/EC and 1999/30/EC and under Directives 2000/69/EC and 2002/3/EC of the European Parliament and of the Council

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