

National Ambient Air Quality Standards (NAAQS)

National Ambient Air Quality Standards (NAAQS) are standards for air quality that are set by the Central Pollution Control Board (CPCB) that are applicable all over the country. Topics related to the environment, especially, air pollution/quality are essential for the [IAS exam](#). In this article, you can read all about NAAQS for UPSC.

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The NAAQS set by the [CPCB](#) are applicable to the whole country. The CPCB draws this power from the Air (Prevention and Control of Pollution) Act, 1981.

- These standards are essential for the development of effective management of ambient air quality.
- The first ambient air quality standards were developed in 1982 pursuant to the [Air Act](#).
- Later, in 1994 and 1998, these standards were revised. The latest revision to the NAAQS was done in 2009 and this is the latest version being followed.
- The 2009 standards further lowered the maximum permissible limits for pollutants and made the standards uniform across the nation. Previously, industrial zones had less stringent standards as compared to residential areas.
- The compliance of the NAAQS is monitored under the National Air Quality Monitoring Programme (NAMP). NAMP is implemented by the CPCB.
- The current standards (2009) comprise 12 pollutants as follows:
 - Particulate Matter 10 (PM10)
 - Particulate Matter 2.5 (PM2.5)
 - Nitrogen Dioxide (NO₂)
 - Sulphur Dioxide (SO₂)
 - Carbon Monoxide (CO)
 - Ozone (O₃)
 - Ammonia (NH₃)
 - Lead (Pb)
 - Benzene
 - Benzopyrene
 - Arsenic
 - Nickel

Read a note on [air pollution in Delhi](#) in the linked article.

The following image gives the NAAQS 2009 figures:

Pollutant	Time Weighted Average	Concentration in Ambient Air	
		Industrial, Residential, Rural, and Other Areas	Ecologically Sensitive Area (notified by Central Government)
Sulphur dioxide (SO ₂), µg/m ³	Annual 24 hours	50 80	20 80
Nitrogen dioxide (NO ₂), µg/m ³	Annual 24 hours	40 80	30 80
Particulate matter (< 10 µm) or PM ₁₀ , µg/m ³	Annual 24 hours	60 100	60 100
Particulate matter (< 2.5 µm) or PM _{2.5} , µg/m ³	Annual 24 hours	40 60	40 60
Ozone (O ₃), µg/m ³	8 hours 1 hour	100 180	100 180
Lead (Pb), µg/m ³	Annual 24 hours	0.50 1.0	0.50 1.0
Carbon monoxide (CO), mg/m ³	8 hours 1 hour	02 04	02 04
Ammonia (NH ₃), µg/m ³	Annual 24 hours	100 400	100 400
Benzene (C ₆ H ₆), µg/m ³	Annual	05	05
Benzo(a)Pyrene (BaP) – particulate phase only, ng/m ³	Annual	01	01
Arsenic (As), ng/m ³	Annual	06	06
Nickel (Ni), ng/m ³	Annual	20	20

Image source: <http://www.cpcbenviis.nic.in/>

Difference between NAAQS and AQI

The National Air Quality Index (AQI) was launched in 2014 to measure the air quality and rate it in six categories (ranging from good to severe). Know more about the [Air Quality Index](#) in the linked article.

- The NAAQS was more technical in nature and was not easy for the common man to comprehend. It was with the idea of making air quality levels more understandable to the general public that the AQI was formulated.
- The AQI was launched keeping in mind the idea of ‘One Number-One Colour-One Description’.
- Another difference between both standards is that while the NAAQS 2009 considers 12 pollutants, the AQI covers 8 major pollutants.

- AQI includes all the NAAQS pollutants except benzene, benzopyrene, arsenic and nickel.
- The measurement of air quality for AQI is based on the eight pollutants for which short-term (up to 24-hourly averaging period) National Ambient Air Quality Standards are prescribed and the worst reading in these pollutants represents the AQI for that city.

Note:- Carbon dioxide is not considered an air pollutant in both AQI and NAAQS.

