

An **air quality index (AQI)** is used by government agencies to communicate to the public how polluted the air currently is or how polluted it is forecast to become. AQI information is obtained by averaging readings from an air quality sensor, which can increase due to vehicle traffic, forest fires, or anything that can increase air pollution. Pollutants tested include ozone, nitrogen dioxide, sulphur dioxide, among others.

Public health risks increase as the AQI rises, especially affecting children, the elderly, and individuals with respiratory or cardiovascular issues. During these times, governmental bodies generally encourage people to reduce physical activity outdoors, or even avoid going out altogether. The use of face masks such as cloth masks may also be recommended.

Different countries have their own air quality indices, corresponding to different national air quality standards. Some of these are the Air Quality Health Index (Canada), the Air Pollution Index (Malaysia), and the Pollutant Standards Index (Singapore).

Computation of the AQI requires an air pollutant concentration over a specified averaging period, obtained from an air monitor or model. Taken together, concentration and time represent the dose of the air pollutant. Health effects corresponding to a given dose are established by epidemiological research. Air pollutants vary in potency, and the function used to convert from air pollutant concentration to AQI varies by pollutant. Its air quality index values are typically grouped into ranges. Each range is assigned a descriptor, a color code, and a standardized public health advisory.

National Ambient Air Quality Standards (NAAQS)

In order to develop effective ambient air quality management programme and to reduce air pollution, development of ambient air quality standards is a pre-requisite. Under Section 16(2)(h) of the Air (Prevention and Control of Pollution) Act, 1981, one of the mandate of the Central Pollution Control Board (CPCB) is to lay down standards for the quality of air. The CPCB published first ambient air quality standards vide S.O. 384(E) dated 11.04.1982 and revised by S.O. 935(E), dated 14.10.1998. The latest National Ambient Air Quality Standards were notified by the Ministry of Environment, Forests and Climate Change, Government of India on 16.11.2009 and by the Central Pollution Control Board on 18.11.2009.