

Bulletin



Monthly Newsletter



MAHARASHTRA POLLUTION CONTROL BOARD

MARCH 2022



We are gladdened to present to the stakeholders MPCB's 13th edition of E-bulletin as we continue to series. This E-bulletin is an attempt to give you a brief insight into the latest happenings in the field in terms of various new initiatives undertaken, awareness programs being carried out by MPCB and introduce the reader to the breakthrough research which is being done in this field.

In this edition of the E-Bulletin, we present to you an article on the Air Quality Index (AQI), some relevant facts and the role of MPCB in Air Quality monitoring. Also, a notification on new penalty provisions for violation cases is being explained.

We hope this E bulletin is very much valuable, informative and helpful for the readers and we will also greet your suggestion & feedback for betterment of our future E-bulletins.

Editorial

ARTICLE

Air Quality Index AQI

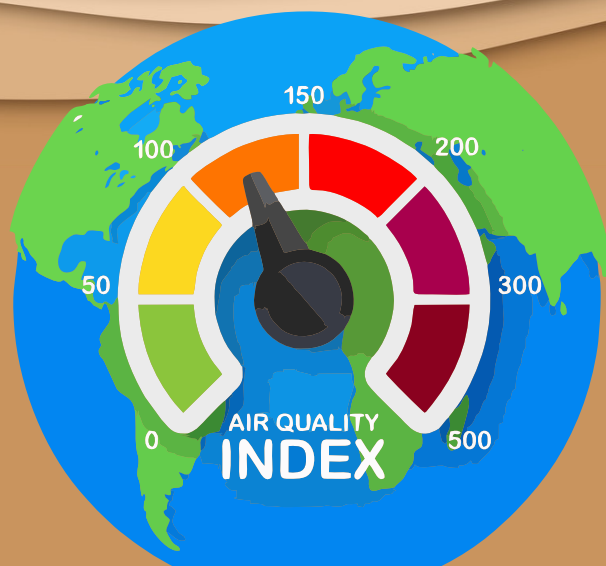
Air quality index (AQI) is a number used to report the quality of air on any given day. The higher the AQI value, the greater the level of air pollution and the greater the impact on health.

Different countries have different AQIs, so it is difficult to compare one location to another on a worldwide scale. Some countries are more safety-conscious than others. The United States uses a 500 point scale to report air quality. Any rating between 0 to 50 is considered good. A score between 51 and 100 indicates a moderate level of health concern (satisfactory). An AQI number between 101 and 200 is considered unhealthy for sensitive groups like the elderly or people with heart or breathing problems. While 201 to 300 is considered very unhealthy. Finally, air quality index in the 301 to 500 range is deemed hazardous (severe).



AQI transforms complex air quality data of various pollutants like ground-level ozone, particulate matter, (including PM_{2.5} and PM₁₀), carbon monoxide, sulfur dioxide and ammonia into a single number (index value).

In India, there are six AQI categories, namely, Good, Satisfactory, Moderately polluted, Poor, Very Poor, and Severe. Each of these categories is decided based on ambient concentration values of air pollutants and their likely health impacts (known as health breakpoints).



AQI CATEGORY (RANGE)	PM ₁₀ (24hr)	PM _{2.5} (24hr)	NO ₂ (24hr)	O ₃ (8hr)	CO(8hr)	SO ₂ (24hr)	NH ₃ (24hr)
GOOD (0-50)	0-50	0-30	0-40	0-50	0-1.0	0-40	0-200
SATISFACTORY (51-100)	51-100	31-60	41-80	51-100	1.1-2.0	41-80	201-400
MODERATELY POLLUTED (101-200)	101-250	61-90	81-180	101-168	2.1-10	81-380	401-800
POOR (201-300)	251-350	91-120	181-280	169-208	10-17	381-800	801-1200
VERY POOR (301-400)	351-430	121-250	281-400	209-748	17-34	801-1600	1200-1800
SEVERE (401-500)	430+	250+	400+	748+	34+	1600+	1800+

AIR QUALITY INDEX OF SOME CITIES IN FEB 2021

CITY	AQI	AIR QUALITY LEVEL	MAJOR POLLUTANTS
AHMEDABAD	123-217	MODERATE	PM _{2.5} PM ₁₀
BENGALURU	56-95	SATISFACTORY	PM _{2.5} PM ₁₀
CHENNAI	67-86	SATISFACTORY	PM _{2.5} PM ₁₀
DELHI	250-324	VERY POOR	PM _{2.5} PM ₁₀
KANPUR	254-272	POOR	PM _{2.5}
KOLKATA	138-252	MODERATE	PM _{2.5}
MUMBAI	99-190	SATISFACTORY	PM _{2.5} PM ₁₀
MYSURU	50-70	SATISFACTORY	PM ₁₀

SOURCE : CENTRAL POLLUTION CONTROL BOARD



Air Quality Monitoring

MAIN CAUSES OF AIR POLLUTION

- Transportation, Fuel combustion
- Agriculture Waste Burning
- Burning of fossil fuels like Coal, Wood, etc. for Electricity
- Construction Activities
- Residential and Commercial Activities

MAIN MANDATE OF MPCB IS TO

- Monitor Ambient & Industrial Air Quality to comply with
- Air (Prevention & Control) Act 1981
- Disseminate information regarding status of air quality

AIR QUALITY MONITORING & IMPROVEMENT EFFORTS

- Strengthening of Air Quality Monitoring Network
- Scientific Studies - Source Apportionment & Emission Inventory Studies, Assessment of Low-Cost Sensor, Monitoring using Unmanned Aerial Vehicle (UAV), Urban Noise Pollution
- Deployment of E-mobility in Maharashtra State, Health Impact, Audit of Ready-Mix Concrete (RMC) Plants & construction sites in Mumbai
- Installation of SODAR system
- Decision Support System using Dispersion Modeling

- Development of Mobile Application for calculation of carbon footprint
- Commuters Choice Program

POLICIES

Interventions to Improve Air Quality through National Clean Air Program
Alternative Fuel Policy - Restricting Use of Furnace Oil & Pet Coke
Ban of Wood Use in Industry & Many More...

OCEMS

MPCB has set an Online Continuous Emission Monitoring System for Real Time Assessment of Industrial Stack

STAR RATING PROGRAM

Disclosure of industrial particulate pollution matter in an understandable manner
The least polluting industries are rated 5-stars and the most polluting industries are rated 1-star

NAMP (Manual) : 75
Ambient Air Quality Monitored under
State Air Monitoring Programme. (Manual) : 4
CAAQMS : 23

NOTIFICATION

NEW PENALTY PROVISIONS FOR VIOLATION CASES UNDER EIA NOTIFICATION

THE GOVERNMENT OF INDIA HAS ISSUED AN OFFICE MEMORANDUM FOR STANDARD OPERATING PROCEDURE (SOP) FOR IDENTIFICATION AND HANDLING OF VIOLATION CASES UNDER EIA NOTIFICATION

As per the Memorandum:

- For past violations, the concerned authorities are free to take appropriate action in accordance with polluter pays principle, following due process.
- A proper SoP be laid down for grant of EC in such cases so as to address the gaps in binding law and practice being currently followed. The MoEF may also consider circulating such SoP to all SEIAAs in the country.

PENALTY PROVISIONS FOR VIOLATION CASES AND APPLICATIONS:

a . For new projects:

- i. Where operation has not commenced: 1% of the total project cost incurred up to the date of filing of application along with EIA/EMP report; [Ex: Rs.1lakh for project cost of Rs.1 Cr)
- ii. Where operations have commenced without EC: 1% of the total project cost incurred up to the date of filing of application along with EIA/ EMP report PLUS 0.25% of the total turnover during the period of violation. [Ex: For Rs.100 Cr project cost and Rs.100 Cr total turnover, the penalty shall be Rs.1 Cr + Rs. 0 .25 Cr = Rs.1.25 Cr)



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