

Bengaluru's air quality sparks debate between pollution control board, experts

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BENGALURU : The scientific community has questioned the claims made by Karnataka state pollution control authorities that air quality has improved in Bengaluru in the last five years, despite rapid urbanisation and increase in traffic.

Experts poke holes in this theory questioning not just data collection and interpretation but also the willingness of the authorities to acknowledge a problem of this magnitude.

According to Karnataka State Pollution Control Board (KSPCB), in its revised action plan for the control of air pollution in Bengaluru, the city's Air Quality Index (AQI) —a metric to report daily air quality— has fallen from 107.1 in 2014-15 to 88.1 in 2018-19 that shows a decreasing trend in the five year annual average.

"Our mission is to bring AQI down to below 50 by 2024," Dr H.Lokeshwari, chief scientific officer at KSPCB said.

The state pollution control authorities base their claims on the impact of its 41-point action plan like implementing LPG and bio-fuels, promote battery operated vehicles, effective disposal of construction debris and operations of the metro has helped improve air quality.

The claims coming at a time when the national capital, Delhi and other parts of northern India have declared a health emergency over the rapidly deteriorating quality of air leading to an increase in respiratory related and other illness and bringing down the quality of life.

Experts, however, say that the claims made by authorities border on the bizarre as in a city in which the total number of vehicles increased from 68.33 lakhs in 2017 to 80.49 lakhs until March, exponential increase in construction activity with no sustainable debris disposal mechanism, loss of green cover, unmanaged garbage and unsettling dust on dug up roads across Bengaluru has contributed to the increase of particulate matter like PM10 and PM2.5 among other harmful pollutants in the air that has resulted in a spike in respiratory related diseases among other health impacts.

A scientific officer with the board says that private entities take selective data whereas the pollution control board takes the average of 104 measurements. It also averages the measurements for a 24 hour cycle.

T.V. Ramachandra from centre for ecological studies at the Indian Institute of Science (IISc) points to this problem as the “anomaly of averages”.

He said, for particulate matter, PM10 and PM2.5 readings alone is sufficient to talk about air quality.

“When you have a 24 hours data, the peak will be in certain crucial hours. But when you take an avg of 24 hours , naturally there will be a dilution in results," he said.

Experts point out to flaws in sensor location, calibration and placement, data collection and interpretation.

“If they acknowledge the problem then there has to be an intervention, action, followed by more work which they don't want to do," Madhusudhan Anand, chief technical officer at, Ambee, a Bengaluru-based startup that works to find solutions for air pollution.

Officials at the pollution control board stress on the impact of the over 42 km long metro that records an average passenger load of 400,000 per day in a city that has over 10 million.

The flaw in the metro theory, among others, is inadvertently pointed out by scientific officer cited above.

“We had a monitoring station near Victoria hospital and the readings were high in 2014-15. Now it has reduced,” said a senior official from the board, requesting not to be named.

Drawing conclusions that the completion of one station and not monitoring those still under construction is a flawed approach, experts say.

There are a total of 13 manual monitoring stations and seven real time CAAMS (Continuous Ambient Air Monitoring Station) in Bengaluru in a city that expands to over 820 square kms that leaves the existing data collection infrastructure rather inadequate.

“We should not be in denial,” Kiran Mazumdar Shaw, chairperson of Biocon Ltd, says unwilling to comment on the claims made by the authorities.

A minister in the Karnataka government said the claims of the board sounds “unbelievable”.