## **TELANGANA TODAY**

https://telanganatoday.com/air-pollution-levels-on-the-rise-in-hyderabad Air pollution levels on the rise in Hyderabad Industrial exhaust and burning of agricultural waste were the smallest contributors to air pollution in the city, while vehicular exhaust and activities such as construction and demolition were the largest contributors. AddThis Sharing Buttons Share to FacebookFacebook Share to TwitterTwitter Share to Google+Google+ Share to LinkedInLinkedIn Share to Pinterest Pinterest By AuthorSharjeel | Published: 15th Feb 2018 12:58 am Updated: 15th Feb 2018 1:46 am Air pollution Traffic jam (Photo: Hrudayanand)

Hyderabad: Air pollution levels in the city have seen a rise in 2017 in comparison with 2016, though officials say the rise has not reached alarming proportions.

Air pollution data collated and published online by Telangana State Pollution Control Board (TSPCB) shows a hike across various parameters and locations, with industrial, commercial and residential areas all falling prey to the same malaise.

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Among the top five air pollution parameters, namely, nitrogen oxides (NOx), particulate matter (PM10 and PM2.5), sulphur dioxide (SO2) and ozone (O3), there is not a single indicator that does not show an increase.

## Air pollution

"There is a slight increase, but it cannot be called abnormal. An increase in urban air pollution of 10-15 per cent annually is considered normal and predictable," said TSPCB Joint Chief Environmental Scientist (JCES) P Veeranna.

The most prominent contributor of air pollution is exhaust from outdated vehicles, said TSPCB Member Secretary (MS) P Satyanarayana Reddy. The more the number of outdated vehicles plying on the roads, the more will be the air pollution.

"Other factors such as construction, demolition and deforestation also matter, with vehicular exhaust causing 49 per cent of air pollution in the city, according to our studies. Lakhs of vehicles were added onto the city roads in 2017, with more than 40 lakh vehicles plying under GHMC limits alone," he said, adding that TSPCB was in the process of publishing a new 'Source Apportionment' report, which aims to determine the exact sources of pollution.

## Air pollution

The particulate matter recorded at the University of Hyderabad (UoH) showed an increase in PM2.5 from 33 ug/m3 (microgram per cubic metre) to 56 ug/m3 and in PM10, from 75 ug/m3 to 92 ug/m3 between the years 2016 and 2017, as annual average figures recorded by TSPCB show.

While the university is located in the upmarket and newly-developed Gachibowli area, the situation is no better in the old city. Particulate matter at Charminar increased from 48 ug/m3 of PM2.5 in 2016 to 60 ug/m3 in 2017, and from 108 ug/m3 of PM10 in 2016 to 122 ug/m3.

According to the last published Source Apportionment report, industrial exhaust and burning of agricultural waste were the smallest contributors to air pollution in the city, while vehicular exhaust and activities such as construction and demolition were the largest contributors.

"Half the particulate matter was found to be caused by vehicular exhaust alone, but building activity and burning of solid waste also contribute significantly to pollution in Hyderabad," said Veeranna.

The senior scientist also gave a word of caution about the veracity of pollution data.

"Air is highly dynamic, and hence air pollution monitoring cannot always be accurate. Depending on the shifting of winds, the monitoring stations may record higher or lesser pollution from an area than is usually present on the ground there," he said.

Atmospheric particulate matter is considered to be the most harmful of all pollutants, as particulates are microscopic inhalable pollutants such as dust, smoke and soot, which can easily enter the lungs and blood vessels.

Road dust resulting from vehicular movement, burning of fossil fuels, industrial and vehicular exhaust, cement dust caused by construction and demolition, deforestation and tobacco smoke are touted by scientists as the most common causes of particulate matter in urban spaces.

Nitrogen oxide (NOx) is a pollution parameter comprising both nitric oxide (NO) and Nitrogen dioxide (NO2). NOx gases are caused primarily by fuel combustion, and in turn cause formation and increase of ozone and particulate matter. NOx gases also lead to acid rains and smog.

While SO2 is mostly caused by industrial exhaust from burning sulphuric fossil fuels, ozone gas formation at ground level is caused by the chemical reaction of sunlight and fossil fuel-related pollutants, such as SO2, particulate matter and NOx.

The TSPCB has 18 manual monitoring stations and six real time online monitoring stations in the city and its outskirts.