

Bengaluru's air purifiers confirms heavy metals in air

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By KapilKajal

Recently, the Bruhat Bengaluru MahanagaraPalike (BBMP) put up air purifiers by signing a memorandum with software company Atechtron to counter the city's ambient air pollution. According to lab reports, heavy metals like lead and chromium have been found in the city's air.

Rajeev Krishna, the founder of Atechtron, confirmed that heavy metals including lead, zinc, iron, manganese and chromium have been detected from the airborne dust collected by the air purifiers in the city. He added that particulate matter concentrations were also high in the city and with the heavy metals, it has a serious impact on the health of humans.

As per lab test reports, the primary filter of the air purifier located at Hudson Circle collected nearly 19 grammes of dust in a period of eight hours. The average airborne dust comprised fine

particulate matter, black carbon and heavy metals, while collecting 800 grammes to one kilogramme of dust was collected by the air purifier each day.

Further, the report added that PM_{2.5} collected in eight hours of the peak time was nearly 48 µg/m³ (1 µg=10 lakh grammes) against the World Health Organization's (WHO) limit of 10 µg/m³ while PM₁₀ collected in the same period of time was nearly 90 µg/m³ against the WHO limit of 20 µg/m³.

Dr T V Ramachandra, a professor with the Centre for Ecological Sciences at the Indian Institute of Sciences, stated that the garbage burning, traffic and industrial emissions in Bengaluru usually comprises metals, plastic and aerosols, and they emit out heavy metals like chromium, copper, mercury and lead in the air.

Referring to the data, he said the values of PM_{2.5} and PM₁₀ is about eight times the WHO limits and the health consequences are clear.

“This also confirms that the Karnataka State Pollution Control Board (KSPCB) manipulates the data and their claim of pollution being reduced is a hoax,” Dr Ramachandra added.

Dr Shashidhara Gangaiah, a paediatrician with the Center for Science Spirituality, stated that exposure to heavy metals like lead, zinc, mercury, arsenic and chromium can affect the growth of a child on the genetic level. He added that the burning of garbage can also release toxic gases like dioxin if the heavy metals are burnt and it can cause cancer.

A study by the International Journal of Pure and Applied Research (IJPAR) also detected heavy metals in heavy metals in Bengaluru. It also added the risk to the human body from the exposure of heavy metal in the air as zinc plays an important role in different metabolic pathways, originating both from natural and from anthropogenic sources and iron may be hazardous to the environment.

The higher concentrations of cadmium affect the metabolic processes through replacement of essential elements at the active sites of biologically important molecules, thus indirectly inducing nutritious deficiencies and manganese has very little effect as it lacks toxicity property even when accumulated in the environment.

Dr Yellapa Reddy, the Governing Council Member of the Foundation for Ecological Security of India, mentioned that the air purifiers have shown the real data of the air pollutants in the city which the KSPCB had been always hiding through hook or crook.

He stated that heavy metals like lead and zinc not only severely affect human brain development but also affect plants, animals, water bodies and soil in Bengaluru. The city's industries must be shut, there is no other option, he suggested.

(Author is Bengaluru - based freelance writer and a member of 101Reporters.com, a pan-India network of grassroots reporters.)

