

DIY pollution tests challenge govt data

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New Delhi: Inadequate and unreliable data from government agencies has led to individual researchers using battery-operated portable devices that measure one's personal exposure to air pollution. This method reflects not only the alarming fact that exposure to air pollution in Delhi, however brief, could sometimes be 10-20 times the safe limit but also the large disparity in government data and re-

carried such a device inside Supreme Court premises only to find PM2.5 levels about four times the standard. Joshua Apte, a post doctoral fellow at Lawrence-Berkeley national laboratory, who has been tracking pollution levels at traffic-heavy locations while travelling in an auto, has also found average ambient air pollution levels to be 50% higher than background readings taken by monitoring stations.

"We are monitoring what is the personal exposure of an individual to air pollution. If someone is spending long hours in traffic, their exposure is much greater," Anumita Roychowdhury, head of the Centre for Science and Environment's Clean Air programme, said. California Resources Board in US is already monitoring roadside exposure to pollutants. To assess real impact on health, one needs to know real-time exposure to sources pollution watchdogs aren't monitoring, she said.

"In terms of one's health risks, what matters is what one actually breathes. Because people in Delhi frequently spend two to three hours in and near traffic, their exposure over a day is higher than what official monitors in-

Photo: AP

GADGET TO CHECK AIR QUALITY

ALL ABOUT THE AEROSOL MONITOR

- ▶ A battery-operated real-time air pollution monitoring device
- ▶ Uses a sheath air system that isolates the aerosol in optics chamber
- ▶ This contributes to improved reliability and less maintenance
- ▶ Suitable for clean office settings as well as outdoor applications
- ▶ Measures concentrations of PM1, PM2.5 and PM10



- ▶ Has both manual and programmable data logging functions
- ▶ Aerosol concentrations ranging from 0.001 to 150µg per cubic metre can be measured

APPLICATIONS Industrial/occupational hygiene surveys; indoor air quality investigations; outdoor environmental monitoring; emissions monitoring; aerosol research

TOI AGAINST POLLUTION

al-time data monitored at various locations in the city.

Government agencies, however, believe such monitoring is "unscientific". They claim what matters is consistent exposure which is reflected in the day's average PM 2.5 (fine, respirable particles) reading. It's PM2.5 that's associated with reduced lung capacity, etc.

Recently, environmentalist Sunita Narain and Supreme Court advocate Harish Salve

exhaust," an official said. As for the reason behind taking up this research, non-government bodies cite the absolute lack of monitoring by the Central Pollution Control Board which ought to track air quality in almost all major cities. CPCB doesn't have any real time monitoring for PM2.5 in cities other than Delhi. It is even unable to provide daily readings for PM10 (coarse pollution particles) for most cities in India.

On Monday, CPCB's air quality monitoring process "crashed" due to some technical issues, according to some officials. "It's very unfortunate that CPCB is not able to perform its primary duty of giving round-the-clock pollution levels. We aren't sure why its officials have failed to install automatic stations or collect data instantaneously because the technology is available. People obviously have to depend on other sources because of this," said a former CPCB head who declined to be quoted. People can currently access real time data for Delhi only from Delhi Pollution Control Committee and the ministry of earth sciences' System of Air Quality Weather Forecasting and Research.

dicade. For one of the pollutants we measured, ultra-fine particles, half or more of one's total daily exposure in Delhi might come from time spent in traffic," said Joshua Apte. While such private agencies taking up the pollution watchdog's role has left many government bodies jittery, experts in pollution monitoring agencies have claimed researchers are not following the scientific protocol.

scientific protocol.

"The method of traveling in an auto-rickshaw and measuring pollution is unscientific. A moving sensor is highly affected by the aerodynamic flow of air. Air should enter the sensor at a certain pressure else the value will increase drastically. The device will measure pollutant levels close to exhaust pipes. The whole city does not breathe in