



Editorial

So that we can breathe easy

Sunita Narain/December 31st, 2014

THE EASIEST way to clear air pollution is to not know how bad it is. This is what India practices—in most parts of the country. There is virtually no equipment to monitor the air we breathe and no system that tells us what we should do when pollution levels are up and unhealthy.

In fact, it is only in Delhi that there is some infrastructure to check air quality. The Delhi Pollution Control Committee (DPCC) has six automatic air-monitoring stations. For most of the time these work and data is available in real time. In addition, the Central Pollution Control Board has five automatic stations for real-time monitoring. But strangely, it does not check for Delhi's key pollutant, PM 2.5, the small air toxin, which is particularly bad for health. Then, the Ministry of Earth Sciences (because of the Commonwealth Games) set up 10 stations, including one each in Noida and Gurgaon. Since this premier scientific agency gives only an index—a number computed on the basis of the readings to determine air quality—it is difficult to read or compare. So, while Delhi has 19 stations, the data, which is available on a daily basis, is from four-five working stations of DPCC.

This is still much better than the rest of the country. The Haryana Pollution Control Board has three stations in the national capital region, one each in Gurgaon, Faridabad and Rohtak. But currently, the data is not available on a real time basis. Why? Either because the high-tech machines are out of order or the software, which would collate and transmit the data, is not working. Across the country, there are only 22 continuous monitoring stations, which can check pollution in real time. Of these, data is available for only 12 stations, and worse, none checks for PM 2.5, except for one location in Navi Mumbai (but here also data is old).

We need information about air quality so that we can take precautions. The air quality index (AQI) is a globally established tool to define how air pollution levels impact human health. Last month, India also launched its AQI, which for the first time tells us the health risk associated with poor air quality. For instance, the national standard (measured over 24 hour average) for PM 2.5 is 60 microgram per cubic metre and if the level is higher than 250 microgram per cubic metre then the air is classified as “severely polluted”. The health advisory is that this pollution “may cause respiratory effects even on healthy people and it would have serious health impacts on people with lung or heart disease”.

Globally, AQI is linked to the precautions people need to take and the steps the city government should take to combat pollution. So, Beijing closes schools on red alert days; Paris does not allow diesel cars inside the city on its smoggy days. Data is used to inform and then to act.

In India, we can't do this. We do not have the network of stations, except in Delhi, that can inform us in real time of the dangers. What we have are some 580 manual stations to collect samples and send them for analysis in laboratories. These manual stations can give daily average data after 24 hours and that too only if someone collects, analyses and manually puts out the information in the public domain, and does it regularly. This is rarely done; most data is over two years old.

It is also a fact that India cannot afford, financially or technically, the 1,000-odd automatic stations it would need. Each real-time monitoring station costs roughly Rs.1 crore. It will cost 18-20 per cent of this annually for maintenance and then more for running the stations. In contrast, a manual station costs Rs.8-10 lakh at the most, with relatively nominal operational costs. We need a jugad for monitoring air quality. At the Centre for Science and Environment, my colleagues have bought a portable machine, which can check our exposure to bad air. It gives us information to act. This is what we need much more of. We need to innovate to set up new kinds of samplers, from roadside monitoring equipment and sensors to satellite-based monitors and everything else that tells us about the air quality.

Let's be clear: our air is not clean; we need to know exactly how bad it is so that we stop inhaling poison with every breath we take.