Air Pollution: Health Emergency in NCT of Delhi

Air pollution has now become a worldwide phenomenon with profound adverse effects on humans. Its impact can be seen locally at regional level as well as at the global level.

Pollution levels spiked to lethal levels in Delhi recently, with a thick haze blanketing the entire state, reducing visibility and affecting the public health drastically. The Air Quality Index (AQI) – a measure of the level of pollutants in the air – rose beyond 400 in many places in Delhi. Despite a ban, farmers in Punjab, Haryana and Uttar Pradesh are still burning crop residues leading to toxic smog that has engulfed vast areas of north India including Delhi. Change in weather and lack of wind speed has also led to the smog cover settling down over the city.

In an effort to induce a sense of urgency in the citizens and find concrete action plans at all levels, VIBHA along with the Ministry of Earth Sciences organised the “Enviro-Health Conference – Air Pollution & Future Strategies with a Focus on the NCT of Delhi” on 2 November 2017 at Prithvi Bhawan, New Delhi. The agenda of the conference was to understand and overcome the acute problem of air pollution in and around Delhi. The conference was attended by large number of representatives from various organisations such as the NITI Aayog, MoEF, IITK, JNU, NPL, AIIMS, Nagoya University (Japan), Supreme Court of India, etc.

In his inaugural address, Dr. V.K. Saraswat, Member, NITI Aayog talked about the percentage of distribution of air pollution from various sources viz. 67% from transportation, 21% from industries, 7% from fuel consumption and the rest from various miscellaneous sources such as construction sites. The annual prescribed standards of PM 2.5 and PM 10 are 20 μg/m³ and 60 μg/m³ respectively in India and Delhi has an air quality index of 260-315 at PM 2.5. The issue is not merely about climate change, it’s about climate justice.

Dr. Saraswat shared that 13 of the top 20 cities in the world with the highest annual level of PM 2.5 and PM 10 are in India and Delhi listed at the top. The Global Burden of Disease (GBD) assessments estimated nearly 1 lakh premature deaths due to continued exposure to outdoor particulate matter, which is the fifth largest killer in India.

Dr. M. Rajeevan, Secretary, Ministry of Earth Sciences said, “Air pollution is not only a problem of the elites, it’s a national and global issue.” We need to have a multi-pronged strategy and more accurate measurement of the problem and causes of air pollution, he said.

Shri Sudhir Mishra, Eminent Environmental Lawyer, in his introductory speech said that the biggest problem we are facing today is urban air crisis. He said clean air is not an environmental issue, it is rather a health issue. He said the Central Pollution Control Board and the State Pollution Control Boards should set up committees to monitor the issue on a weekly basis. We have to go to the basics and create comprehensive plans, he said.

Sustainable development is the need of the hour and needs to be
achieved by cleaning air, water and soil, said Dr. K.J. Ramesh, Director General, India Meteorological Department (IMD). He said that growth of personal vehicles is increasing day by day in Delhi contributing to outdoor pollution but indoor air pollution is also a major global public health threat.

There needs to be an emphasis on education in India. Prof. S. Hayashida from Nara Women University, Japan said that when people understand the risk properly, they would change their behaviour such as burning straw. She said that India should make a model to assess the risk of PM 2.5 and PM 10 on health and showed some equipments made in Japan to monitor air quality.

Air pollution is an emergency and it is necessary to fully understand its source and effect. Dr. Sumit Mishra, Sr. Scientist at CSIR-NPL, told the audience about particulate matter (PM) and discussed its physico-chemical characterisation. Prof. S.K. Dhaka from the Delhi University talked about the carbon dioxide spatial temporal variability. He said that carbon dioxide concentration exhibits a linear increasing trend of 2 ppm/year with a distinct seasonal cycle – being highest in value in April-May and lowest in September-October.

Long-term exposure to polluted air can have various adverse health effects including aggravated cardiovascular and respiratory illnesses such as asthma, decreased lung function and emphysema. It also affects the human reproductive and digestive systems causing disruption of endocrine glands, bowel diseases, etc. Other effects include irritation of the eyes, nose and throat, chest tightness, premature mortality and reduced life expectancy.

Post lunch, an interactive session on ‘Enforcement for Air Quality Standards, Monitoring and Compliance’ was moderated by Supreme Court advocate Mr. Sudhir Mishra. Dr. D.K. Aswal, Director, National Physical Laboratory talked about the importance of calibration of pollution-measuring instruments. He highlighted the value of validation done by NPL and informed that it is accepted and recognized globally.

Next up, was Dr. Shruti Rai Bhardwaj, Joint Director, Ministry of Environment, Forests and Climate Change. She said that the role of citizens in fighting air pollution is equally important as much as the government’s. Dr. Bhardwaj talked about the urgent need for increasing the manpower on our pollution boards, and thereby also strengthening their monitoring ability and accuracy. She said that better coordination between state and centre bodies could result in more effective pollution control measures and mechanisms.

The final session talked about identifying future strategies to resolve air pollution. Eminent journalist, Mr. Durgesh Nandan Jha from The Times of India, highlighted the role of print media in creating awareness and a sense of urgency among the citizens of NCR. Shri Sudhir Mishra highlighted 21 agenda points, as a part of resolution every citizen must take to contribute to reducing air pollution. Some of the key points in the agenda were using public transport, car-pooling, informing the relevant authorities upon observing unlawful burning of waste, etc.

The Valedictory Session was held in the presence of esteemed dignitaries including Shri Manoj Tiwari, MP Lok Sabha and BJP President, Shri Praveen Ramdas, National Secretary, and other prominent guests. The Enviro-Health Conference 2017 concluded on a high note with an ‘Environmental Pledge’, to contribute individually towards protecting our environment from perishing.

Compiled by Ms Kirti Bansal and Mr Prashant Raghav, CSIR-National Institute of Science Communication And Information Resources, Pusa Campus, New Delhi