

International Workshop

“Air Pollution and Public Health: Challenges and Interventions”

AIR pollution is recognised as one of the top five causes of mortality linked to respiratory and heart diseases worldwide. According to a WHO report, air pollution leads to 7 million deaths worldwide with a total of 4.3 million deaths linked to household air pollution and 2.7 million related to ambient air pollution.

To focus on the issue, the Centre for Science & Technology of the Non-Aligned and Other Developing Countries (NAM S&T Centre), New Delhi, jointly with Sri Venkateswara College, University of Delhi organised an “International Workshop on Air Pollution and Public Health: Challenges and Interventions” at Hotel Radisson Blu, Dwarka in New Delhi, India, during 5-7 February 2020.

There were 78 participants in the workshop including 13 experts and professionals from developing countries viz., Bhutan, Cambodia, Cuba, Egypt, Indonesia, Iran, Malaysia, Myanmar, Nepal, Palestine, Sri Lanka, Zambia, Zimbabwe; and 65 eminent medical professionals, scientists, government officials, industry representatives as well as students from the host country, India. Prof. (Dr) Randeep Guleria, MD, DM [Professor & Director, All India Institute of Medical Sciences (AIIMS), Delhi] was the Chief Guest at the workshop.

The three-day International Workshop had two Panel Discussion Sessions and eight Technical Sessions in which 32 papers were presented. Some of the themes covered in the Panel Discussion and Panel Lectures included:

- Air Pollution: Know your Enemy — Insights from Around the Globe
- Air Pollution: A Burden on One's Health
- Indoor Air Pollution: A Devil at Home?
- Air Pollution & Respiratory Diseases: Turning Acute to Chronic
- Alarming Rise of Cancer: Is Air Pollution a Contributor?

- Impact of Air Pollution on Reproductive Health
- Mitigation Strategies and Role of Public-Private Partnership
- Recommendations for Sustainable Solutions

The Inaugural Session commenced with a welcome address by Dr P. Hemalatha Reddy, Principal, Sri Venkateswara College, University of Delhi which was followed by an address by Dr Amitava Bandopadhyay, Director General, NAM S&T Centre. He presented the genesis of the event and also briefly described the activities of the Centre (an Inter-governmental Organisation) and highlighted the need for affirmative action on mitigation of air pollution by collaboration and cooperation between various countries and how the NAM S&T Centre could facilitate in achieving these goals.

The Chief Guest Prof. (Dr) Randeep Guleria, Professor & Director, All India Institute of Medical Sciences (AIIMS), New Delhi, shared his professional experience as a Doctor with his research focus on Pulmonology, Respiratory and Sleep Medicine and stated that the biggest challenge of air pollution is that it is an invisible danger and it is hard to fight something that one cannot see, touch, feel or taste. The session concluded with the Vote of Thanks by Dr Vartika Mathur, Assistant Professor, Sri Venkateswara College, University of Delhi, which was followed by an official Group Photo Session.





During the Concluding Session, a 'New Delhi Resolution' with the following set of recommendations was extensively discussed and unanimously adopted by the participants:

1. Appropriate policies should be adopted and programmes initiated to control air pollution resulting from emissions of oxides of carbon, sulphur & nitrogen; hydrocarbons and particulate matter, from stationary and mobile sources to achieve acceptable levels of ambient air quality.
2. Efforts should be made to have continuous monitoring systems of primary and secondary pollutants and their sources to provide precise information about the level of air pollution in a region-specific manner, including hotspots, to get a clear idea about the intensity and magnitude of the problem.
3. Member countries should share information about emissions of different categories of air pollutants from various sources.
4. In order to precisely establish the cause-effect relationship, efforts should be made to continuously monitor and record seasonal fluctuations in air pollution levels and correlate with increased incidents of associated health issues.
5. Governments, industries as well as research and healthcare institutions should encourage trans-disciplinary, holistic research to study the effects of air pollution on human, animal and plant health.
6. The understanding of the concept of 'One Health' should be promoted especially in the context of air pollution.
7. Special emphasis should be given to conducting in-depth analysis of the sources, types, causes and effects of indoor and ambient air pollution.
8. Capacity building programs, workshops and training sessions should be conducted to sensitize people about the causes and harmful effects of indoor and ambient air pollution.
9. Governments should encourage educational institutions to adopt pedagogical tools in the curriculum in the environment and climate change to increase awareness and sensitize students on the harmful effects of air pollution and their role in minimizing the effects.
10. Local health workers and medical practitioners should be encouraged to be involved in epidemiological programs, to create a database of various health issues related to air pollution.
11. Governments should encourage and fund start-ups and researchers engaged in designing environment-friendly solutions in sectors such as transportation, household cooking, construction, etc. to minimize the emission of air pollutants.
12. Appropriate emission control strategies should be adopted on national and international basis, which may include emission standards for various categories of polluters, within a legal framework, and other effective and efficient means of reducing the pollution levels.
13. Internationally coordinated research and development programmes should be supported and undertaken aimed at better understanding of the effects of air pollution on humans and the environment, and improving technologies for fossil fuel combustion and control of pollutant emissions.
14. Governments in NAM and other developing countries should encourage the use of biofuels and other sources of renewable energy. The focus should also be directed towards waste management and biotreatment of polluted environments.
15. All major industrial and infrastructure projects should undergo a human health impact assessment as a part of the approval process.
16. Industries should be mandated to adopt 'Cleaner Technologies' in their production processes to reduce air pollution at source. Industries should be encouraged with incentives to implement 'Process Optimization' and 'Process Integration' for mitigation of air pollution.