Press Release

India Clean Air Summit #ICAS2024

Bengaluru, 30 August 2024

Heading 1. India's top air pollution experts Dr Soumya Swaminathan and Prof Kalpana Balakrishnan call for focus on household air pollution

Heading 2. GRAP is effective and saving hundreds of lives, says Indian Institute of Tropical Meteorology scientist

Key takeaways

- Indoor air pollution poses a bigger health risk than outdoor air pollution
- Women are disproportionately at risk due to exposure to household air pollution
- Economic cost of air pollution was approximately USD 8.1 trillion in 2019 (6.1% of GDP): World Bank study
- Strong economic case for action on clean air
- Graded Response Action Plan (GRAP) has helped save lives

B-roll video for TV and digital news desks:
https://www.youtube.com/watch?v=4xaA_snm9qI

Heading 1. India's top air pollution experts Dr Soumya Swaminathan and Prof Kalpana Balakrishnan call for focus on household air pollution

Indoor air pollution poses a bigger health risk than outdoor air pollution, said two of India's top scientists at the opening plenary session of the India Clean Air Summit (ICAS) 2024, being organised by the Center for Study of Science, Technology and Policy (CSTEP) in Bengaluru.

Dr Soumya Swaminathan, Principal Advisor, Ministry of Health and Family Welfare, said, 'Studies done in Delhi have shown that women's average exposure to high levels of black carbon (this is women who were at home mostly) was as much as autorickshaw passengers going around outdoor exposed to the ambient air pollution in Delhi, resulting in high systolic blood pressure'.

Dr Soumya Swaminathan (L) and Prof Kalpana Balakrishnan (R) speaking at the India Clean Air Summit 2024

‘Cities contribute less than 20% to the overall state emissions, wherever they have been assessed, but household emissions predominate, ranging between 20% and 40%. Across the country, what we are seeing is that sometimes cities are cleaner than the surrounding villages where household air pollution predominates’, she added. This, in turn, builds a strong case for expanding the scope of India’s National Clean Air Programme (NCAP), which currently focuses on non-attainment cities.

Air pollution is a major threat to public health and contributes to a significant amount of morbidity as well as mortality. Apart from $PM_{2.5}$ and PM_{10}, short-lived climate pollutants such as black carbon, methane, ozone, and hydrocarbons have the potential to harm the environment and warm the atmosphere even more than CO_2. Black carbon can cause chronic respiratory illnesses, lung cancer, emphysema, pneumonia, asthma, heart disease, and low birthweight.

‘In terms of reducing our life expectancy, globally, $PM_{2.5}$ is contributing to about 2.3 years of life lost. Just below that is tobacco. In fact, there's so much attention on tobacco and global frameworks for control, but not the same level of attention has been paid to $PM_{2.5}$ and certainly not the same level of commitments’, she added.

The impact of air pollution is not limited to public health but has a significant economic cost as well. Recently, the World Bank published a study highlighting that air pollution has resulted in a loss of approximately USD 8.1 trillion in 2019, which is 6.1% of the global gross domestic product (GDP).

‘We are always talking about air pollution as a problem, but studies also show a strong economic case for action on clean air. There are significant positive consequences to investing in cleaning up the air in terms of the return on investments. We know air pollution is not just bad for our health,

but it's also bad for agriculture, because it reduces the sunlight that's reaching the crops and it's bad for our economy or any country's economy as it deters people from coming and living or visiting those places', Dr Swaminathan added.

Prof Kalpana Balakrishnan, Director, WHO Collaborating Center for Occupational and Environmental Health, believes that the main barrier to shifting to clean cooking fuels that can help reduce household air pollution levels is finance. During the session, she said, 'If we give free LPG to women for 2 years, they are unlikely to shift back to biomass cooking even if you remove the subsidies'.

Heading 2. GRAP is effective and saving hundreds of lives, says Indian Institute of Tropical Meteorology scientist

With Delhi and north India's peak air pollution just weeks away, a senior scientist said that the Graded Response Action Plan (GRAP) has helped save hundreds of lives according to estimates in the last two winters. He was speaking at the 6th India Clean Air Summit organised by CSTEP in Bengaluru.

Dr Sachin D Ghude of the Indian Institute of Tropical Meteorology, Pune, is a key scientist who helped create an air quality advanced warning system, the Decision Support System, used to implement GRAP.

Dr Sachin D Ghude speaking at the India Clean Air Summit 2024

'(We are getting) health benefits from activation of GRAP. In winter of 2022–23, because of the activation of different levels of GRAP, we could save around 177 mortality. Even in the winter of 2023–24, when air quality

was more severe compared to 2022, you get more benefits'. The data he showed for 2023–24 listed a figure of 297 persons of 'avoided short-term excess mortality'.

During his presentation, Dr Ghude said, 'GRAP 3 and 4 are actually effective. They can control air quality level at a certain level. You gain a change in AQI (air quality index) of a maximum up to 100, but usually in the range of 40 to 60. So, 40 to 60 is a very good change in the AQI'. This could lead to the air quality index improving from 'severe' to 'poor'.

On the more controversial measures such as smog guns, water sprinkling, and cloud seeding adopted or considered in Delhi and some other cities, Dr Ghude was clear—these are not effective in reducing pollution.

'These are not effective because pollution in any region is a thick layer. By sprinkling the water or just putting the smog guns, you are not able to control air quality in Delhi'.

Citing an example, he pointed out that one smog tower may take 35 days to clean a block of air around it.

The India Clean Air Summit has been organised by CSTEP. At its sixth edition, over three hundred scientists, policy experts, funders, SMEs, students, and political leaders have attended the event in-person and online.

Media Contact

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About CSTEP: CSTEP is a not-for-profit research organisation with a mission to enrich policymaking with innovative approaches using science and technology for a sustainable, secure, and inclusive society. Our interdisciplinary research encompasses diverse fields such as energy, urban development, climate, and air pollution.

About ICAS: Since its inception in 2019, the India Clean Air Summit (ICAS) has emerged as a platform for the community working on improving air quality in India, including government, academia, civil society organisations, and citizens, to collaborate and discuss important issues around air pollution.