Waste management, cleaner transport key to clean air plans

20%-30% reduction in particulate matter concentration is achievable, provided everyone puts an effort into it, says Centre for Study of Science, Technology and Policy

K.C. DEEPIKA
BENGALURU

Bengaluru, Davangere and Hubballi-Dharwad are among the 122 non-attainment cities across the country whose air quality do not conform to the national ambient air quality standards. ▪ FILE PHOTO

Transport options driven by fossil fuels, poor waste management (due to waste burning), emissions from industry, and road dust are among the top common components of air pollution in the non-attainment cities.

Speaking to *The Hindu*, Centre for Study of Science, Technology and Policy (CSTEP) Executive Director Jai Asundi said the think-tank was making customised clean air action plans for non-attainment cities across the country whose air quality do not conform to the national ambient air quality standards.

In Karnataka, Bengaluru, Davangere and Hubballi-Dharwad are among the 122 non-attainment cities.

CSTEP recently launched the Clean Air Action Plans for Gaya, Muzaffarpur and Patna in line with India's National Clean Air Programme.

"We are also working on a plan to improve air quality in Bengaluru with the relevant State authorities, including the Karnataka State Pollution Control Board (KSPCB). We covered two aspects – developing an emission inventory and a source apportionment study. This will be one the most detailed studies done in the past decade covering four seasons. I believe this is the gold standard for such an exercise, but it is prohibitively costly both in terms of time and money and would be difficult to do for every city in the country. In Bengaluru, luckily, the KSPCB already had certain equipment which was used for the study," said Mr. Asundi.

He added that the plan they develop along with State authorities will go a long way in achieving the targets in the National Clean Air Programme.

Particulate matter

The Clean Air Programme envisions the 122 cities achieving 20% to 30% reduction in particulate matter concentration by 2024 using 2017 as the base year. This would involve identifying the sources of pollution through emission inventories. For example, in Bihar, brick kilns were one of them, which may not be the case with other cities, necessitating customised plans, he said.

"In Bengaluru and Delhi, for instance, a comprehensive waste-management plan needs to be drawn with the city municipalities. In Patna, introduction of electric vehicles, increasing penetration of LPG cylinders and advanced technology for industries were recommended," Dr. Asundi said.

But there are some common implementable solutions: making sure industries use the best possible technology to reduce pollutants, introduction of CNG or electric buses, and efficient public transport where it is missing, proper waste management practices – including processing C&D, street cleaning and sweeping, and ensuring reliable power supply which would eliminate the need to use DG sets.

The timelines for implementing these solutions and achieving the targets though will vary within States too, as is the nature in India, he said. Explaining, he said factors such as the airshed in which the city resides cannot be controlled easily, while emissions in cities can be.

Similarly, smaller cities may have fewer pollution sources to control, but the bigger cities may have more resources.

"But all cities have an opportunity to work on a plan and the 20%-30% reduction target is achievable, provided everyone puts their effort into it. Given that clean air plans are going to be based on data, there is a lot of hope," said Dr. Asundi.

Coordination is key

Given that clean air is a multi-departmental task, coordination will be key. He offered the examples of Bihar, where the (then) Deputy Chief Minister has asked the CSTEP team to revisit and assess the implementation, and Karnataka, where the Chief Secretary is the convenor of a task force on air pollution.

More benefits

But the overall impact, he said, is of public good, with benefits weighing much higher than the cost.

"There will be significant benefits on reduction in cardiopulmonary diseases. Pollution-control technology in thermal power plants will have huge benefits. The interventions are not pies in the sky. These are current plans with technology already in place. The innovations are in terms of management, policy and implementation," he said.