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FIVE-POINT AGENDA TO ACCELERATE INDIA'S CLEAN AIR MISSION

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India embarked on a journey to reduce the staggering health burden attributable to air pollution. Despite series of policies and programs announced in recent years, the impact is not discernible. The following five-point agenda would accelerate India's progress towards cleaner air.

1. Move to air shed approach

The National Clean Air Program (NCAP) primarily focuses on urban centers, completely neglecting rural regions. Even the city action plans for the non-attainment cities lying within an air shed are not interconnected. Studies¹⁻³ showed that large contribution comes from outside the non-attainment cities and even from outside the state. Experiences during the lockdown also suggested that household emission and open burning continue to be important sources at a regional scale. It must be noted that ground-based monitoring is not adequate in India, and more cities would have been declared non-attainment had there been measurements. Estimates from satellites suggest that a large part of India, including the rural area, has a pollution level exceeding the national standard.⁴⁻⁵ Hence, the city-centric approach in the NCAP would not work unless the city action plans are linked to regional action plans. The solution to this is the demarcation of the city air sheds, re-design the clean air plan for the entire air shed linking mitigation measures targeted at urban and regional sources.

2. Balance the resource allocation

Based on the recommendations of the 15th Finance Commission, the Central Government released 2,200 Crore as the first installment last November to help improving air quality in the million-plus cities in the country. The fund is expected to substantially enhance the infrastructure and capacity of the urban local bodies (ULBs), whose day-to-day activities can help reduce emissions from solid waste management, construction, and resuspended dust from roads. While this initiative is commendable, the NCAP is grossly under-resourced. We need to understand that ULB actions can at best reduce primary particulate emissions at a local scale, while a large share is contributed by secondary particulates emitted in the form of gaseous precursors from industries, power plants, brick kilns, and transportation sectors. Without enough funds, these sources cannot be tackled. There is no clarity on how the measures taken by the ULBs can be coordinated with the measures taken by the state pollution control boards (SPCBs) under the NCAP. The solution to this is to establish a synergy between actions at local and regional levels and apportion financial and institutional resources flexibly depending on the requirements.

3. Engage in evidence-based policy and prioritize measures

Most, if not all, city action plans simply present a wish list and fail to provide a clear implementation plan. Currently, there is no framework to prioritize mitigation measures based on the cost-effectiveness, ease of implementation, and expected health benefit across the local (by the ULBs), regional (by the SPCBs) and national scale (by the Central government). It is critical to know which plans work and which don't, so that the plan can be re-designed to suit the requirement. The current air pollution monitoring infrastructure is inadequate to address this issue as they don't provide continuous information on source contributions. The solution is the annual update of the sectoral emissions within each air shed that would allow estimating sectoral contributions to the air quality

in the non-attainment cities and separating the local and regional contributions. This would require dedicated resources and enhanced capacity at the state level.

4. Stakeholder engagement and accountability

The current regulatory system (the Central Pollution Control Board and SPCBs) is severely constrained in terms of skilled manpower, financial resource, and legal authority. This has led to a situation where policies are announced without the ability to ensure compliance with stricter emission norms. Without a clear implementation plan engaging all stakeholders, including the end-users of the regulations and lack of coordination between various parties responsible for the implementation, it is difficult to achieve success. The finance commission grant for the million-plus cities is linked to performance evaluation, but it is highly unlikely that the ULBs alone can achieve the set target. It is high time that the agencies should take ownership of their responsibilities in implementing the clean air action plan within the air shed and assess the efficacy of the plan periodically.

5. Willingness to act

In India, we tend to react if the consequence of a problem is immediate and visual. Take the COVID-19 pandemic for an example. The government sprang into action immediately after the first case was detected last year, including one of the strictest lockdowns in the world, and the public fully supported it. India has been aggressively and persistently campaigning against smoking for decades because a majority believes in its ill consequence. When it comes to air pollution, the impact is gradual and cumulative (over one's lifetime). It becomes a topic of discussion only during the most critical period of October-January when unfavorable meteorology escalates the pollution level to the 'severe' category. Rest of the year, there is a sense of apathy and lack of urgency. Decades of research led to the Global Burden of Disease study that tracks the health of the global population in a unified framework. Though more research is required to refine the numbers for India, the estimated health burden due to air pollution is large enough to convince all stakeholders to take this problem seriously. We need to keep in mind that by delaying action, we are putting our next generations in grave danger. Dramatic improvement in air quality during the COVID-19 lockdown demonstrated that India could achieve clean air by emission reductions. India cannot afford losing momentum before it is too late.

More Reading

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4. Balakrishnan, K. et al. (2019), The impact of air pollution on deaths, disease burden, and life expectancy across the states of India: the Global Burden of Disease Study 2017, Lancet Plan. Health, 3(1), 26-39.
5. Dey, S. et al. (2020), A satellite-based high-resolution (1-km) ambient PM_{2.5} database for India over two decades (2000-2019): Applications for air quality management, Rem. Sens., 12, 3872.
