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Wrong Doctor, Wrong Medicine

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(This editorial is based on the article “Wrong Doctor, Wrong Medicine” which appears in The Hindu on 4th November 2018. It analyses the problem of air pollution in India.)

Air pollution has now become a familiar story, repeated with minor variations every year. **India’s air pollution issue comes off as a peculiarly urban problem.** The World Health Organization’s Air Pollution and Child Health: Prescribing Clean Air report released earlier this week underlines the fact that the main sources of air pollution may vary from urban to rural areas, but no area is, strictly speaking, safer. This shows the seriousness of the problem spreading everywhere.

Both indoor and outdoor (ambient) air pollution poses several acute and chronic threats to human health, causing over 1.8 million deaths per year. **While indoor pollution had a higher count of deaths two decades ago, ambient air pollution is the bigger killer now according to recent estimates. In reality, both are major killers with both forms of pollution mixing with each other as air flows between homes and the streets.**

The UN Environment Programme’s recent report titled ‘Air Pollution in Asia and the Pacific: Science-Based Solutions’ has sounded a warning, pointing out that **only 8% of the population in the countries of the region get to breathe the air of acceptable quality.**

Reasons Behind Air Pollution:

- **Urban Air Pollution**

- Every winter, the Indo-Gangetic plains, housing nearly a third of India's population, are blanketed with a thick layer of ambient pollution caused by **stubble burning in nearby states, brick kilns, coal-fired factories and wood fires for heat etc.**
- Slowing down of air currents in the winter combined with a decreasing temperature also leads to air pollution in northern states of India.
- The problem is aggravated by the **burning of urban waste, diesel soot, vehicular exhaust, road and construction dust, and generation of power using coal.**
- Seasonal additions like **fine dust blowing in from the Thar desert** during some summer months further aggravates the problem.

- **Rural Air Pollution**

- Burning of agricultural crop residues and garbage.
- Burning of solid biomass fuels for cooking.
- Increasing deforestation.
- Pollution caused by factories in sub-urban areas.

Effects of Air Pollution

- **The Global Burden of Disease (2016) ranked air pollution as the second highest contributor to death and disability in India, next only to malnutrition.**
- **Of the 1.1 million air pollution-related deaths in 2015, 75% were in rural India.**
- The report found that India had almost 61,000 deaths of children under the age of five years due to ambient and household pollution. In the under 14 bracket, it had over 100,000 deaths.
- The complex mixture of pollutants, which includes carbon monoxide, nitrogen oxides, lead, arsenic, mercury, sulphur dioxide, poly-aromatic hydrocarbons and particulate matter, is contributing to the **rise of non-communicable diseases such as cardiovascular conditions, lung disease and cancer.**
- **Pregnant women pass pollutants they breathe into the foetus through placental blood flow, which may result in stillbirths or a growth retarded baby.**
- The elderly too are especially vulnerable to the many ailments that air pollution inflicts.
- The health of the economy will also feel the ill effects of air pollution. The physical effects, which range from lethargy to lethal diseases, damages productivity.

- **It is deeply disturbing to know that India records the highest premature deaths among under-5 children due to toxic air.** This has emerged from the newly-released report of the World Health Organization - Air Pollution and Child Health Prescribing Clean Air.

Way Forward

- Promoting the use of biomass fuels for indoor cooking, heating, and light is a significant solution. Pradhan Mantri Ujjwala Yojana, which aimed at shifting poor households from biomass to clean liquified petroleum gas (LPG), had the right idea. But it hasn't quite worked out that way in practice when it came to implementation. So, the gap between planning of schemes and implementation should be addressed.
- Air quality monitoring stations by the Central Pollution Control Board (CPCB) should be set up across the country, even in rural areas. All sources of air pollution must be earnestly and effectively tackled, all across the country and all year round.
- Proper data collection should be done on how violations of existing emission norms should be addressed. Fine-grained information will foster innovation.
- Most crucially, any programme planning should envisage cooperation and coordination across crucial ministries such as health, transport and energy.
- A national consensus for concerted action against air pollution must emerge from the national distress, binding the central and state governments to time-bound actions. Targets must be set, monitored and accomplished.
- Use of technologies to turn farm residues into a resource, converting them into biofuels and fertilizers may minimise the stubble burning.
- Large cities should reorient their investments to prioritise public transport, favouring electric mobility. Sharply escalated, deterrent parking fees can be implemented. If governments delay action on the critical issue of pollution control, public pressure must force them to act.
- There should be strict regulations on industries and construction units to control the air pollution.
- The Supreme Court prohibited the plying of diesel vehicles that are over 10 years old and petrol vehicles that are over 15 years old in the National Capital Region. And also regulated burning crackers.
- Green walls with internal watering tanks on flyovers, walls beside roads can also contribute towards fresh air.
- But, fighting pollution must be a year-round exercise, not a winter ritual.
- Awareness should be created among people which can enable people to protect themselves.

How are cities around the world tackling air pollution?

- **Paris** bans cars in many historic central districts at weekends, imposes odd-even bans on vehicles, makes public transport free during major pollution events and encourages car- and bike-sharing programmes.
- **In Netherland**, politicians have proposed a law to ban the sale of all petrol and diesel cars from 2025, allowing only electric or hydrogen vehicles. The proposed new law would allow anyone who already owns a petrol or diesel car to continue using it. Most cities encourage bicycle use.
- **Freiburg in Germany** has 500 km of bike routes, tramways, and a cheap and efficient public transport system. One suburb, Vauban, forbids people to park near their homes and makes car-owners pay €18,000 for a space on the edge of town. In return for living without a car, people are offered cheaper housing, free public transport, and plentiful bicycle spaces.
- **Oslo in Norway** plans to halve its climate emissions by 2020 and proposes a large no-car zone, the building of 40 miles of new bike lanes, steep congestion charges, a rush-hour fee for motorists, and the removal of many parking spaces.
- **The southern Brazilian city** of 2 million people has one of the biggest and lowest cost bus systems in the world. Nearly 70% of the city goes to work by public transport and the result is pollution-free air and traffic-free streets.
- A joint effort by the **Delhi Metro Rail Corporation and Nurturing Green**, an NCR-based company, the oxygen chamber at Gurugram Huda City Centre brings with its over hundreds of anti-polluting plants.
- An entire vertical forest city is being set up in **Liuzhou (China)** with a tree cover that will act as an air filter – with 40,000 trees and more than a million plants. The aim is to absorb pollution and produce oxygen. The city is being designed by Stefano Boeri Architetti and is expected to be completed by 2020.