



## World Bank Report on Air Pollution

**For Prelims:** National Clean Air Programme, World Bank

**For Mains:** Environmental Pollution & Degradation

### Why in News?

Recently, the [World Bank](#) released a report titled '**Striving for Clean Air: Air Pollution and Public Health in South Asia**'.

- The report **details how persisting with policies currently being implemented** (largely since 2018) will yield results but not to the desired level.

### What are the Highlights of the Report?

#### ▪ Airsheds:

- Six large airsheds exist in South Asia, where the air quality in one can affect the air quality in another. They are:
  - **West/Central Indo-Gangetic Plain (IGP)** that included Punjab (Pakistan), Punjab (India), Haryana, part of Rajasthan, Chandigarh, Delhi, Uttar Pradesh.
  - **Central/Eastern IGP:** Bihar, West Bengal, Jharkhand, Bangladesh
  - **Middle India:** Odisha/Chhattisgarh
  - **Middle India:** Eastern Gujarat/Western Maharashtra
  - **Northern/Central Indus River Plain:** Pakistan, part of Afghanistan; and
  - **Southern Indus Plain and further west:** South Pakistan, Western Afghanistan extending into Eastern Iran.
- When the wind direction was predominantly northwest to the southeast, **30% of the air pollution in Indian Punjab came from the Punjab Province in Pakistan** and, on average, 30% of the air pollution in the largest cities of Bangladesh (Dhaka, Chittagong, and Khulna) originated in India. In some years, substantial pollution flowed in the other direction across borders.

#### ▪ Exposure to PM 2.5:

- Currently over **60% of South Asians are exposed to an average 35 µg/m<sup>3</sup> of PM<sub>2.5</sub> annually.**
- In some parts of the **IGP** it spiked to as much as 100 µg/m<sup>3</sup> - nearly 20 times the upper limit of 5 µg/m<sup>3</sup> recommended by the [World Health Organisation \(WHO\)](#).

#### ▪ Dominant Sources of Air Pollution:

- Large industries, power plants and vehicles are dominant sources of air pollution around the world, but in South Asia, other sources make substantial additional contributions.
- These include **combustion of solid fuels for cooking and heating, emissions from small industries such as brick kilns**, burning of municipal and agricultural waste, and cremation.

### What are the Suggestions?

- **Reducing Airsheds:**
  - Governmental measures can reduce particulate matter, **but significant reductions in airsheds require coordinated policies across the airsheds.**
    - If Delhi National Capital Territory were to fully implement all air pollution control measures by 2030 while other parts of South Asia continued to follow current policies, it wouldn't keep pollution exposure below 35 µg/m<sup>3</sup>.
    - However, if other parts of South Asia also adopted all feasible measures it would bring pollution below that number.
- **Changing Approach:**
  - South Asian countries including India **need to change their approach in order to improve air quality and reduce pollutants** to levels considered acceptable by the WHO.
- **Close Coordination Required:**
  - Curbing air pollution requires not only tackling its specific sources, but **also close coordination across local and national jurisdictional boundaries.**
  - **Regional cooperation can help implement cost-effective joint strategies** that leverage the interdependent nature of air quality.
  - The most cost-effective one, which calls for full coordination between airsheds, would cut the average exposure of PM 2.5 in South Asia to 30 µg/m<sup>3</sup> at a cost of USD 278 million per µg/m<sup>3</sup> of reduced exposure and save more than 7,50,000 lives annually.

## What is Airsheds?

- The World Bank defines an airshed as a **common geographic area where pollutants get trapped, creating similar air quality for everyone.**

## What are the Related Steps taken?

- **National Clean Air Campaign (NCAP):**
  - Launched in 2019, it **aims to reduce air pollution in 131 of India's most polluted cities.**
  - The target was initially to cut pollution by 20%-30% by 2024 over 2017 levels but has now been revised to cutting it by 40% by 2025-26.
- **System of Air Quality and Weather Forecasting and Research (SAFAR) Portal**
- **Air Quality Index:** AQI has been developed for eight pollutants viz. PM2.5, PM10, Ammonia, Lead, nitrogen oxides, sulphur dioxide, ozone, and carbon monoxide.
- **Graded Response Action Plan (for Delhi)**
- For Reducing Vehicular Pollution:
  - **BS-VI Vehicles,**
  - **Push for Electric Vehicles (EVs),**
  - **Odd-Even Policy** as an emergency measure (for Delhi)
- **New Commission for Air Quality Management**
- Subsidy to farmers for buying **Turbo Happy Seeder (THS) Machine** for reducing stubble burning.
- **National Air Quality Monitoring Programme (NAMP):**
  - Under NAMP, four air pollutants viz. SO<sub>2</sub>, NO<sub>2</sub>, PM<sub>10</sub>, and PM<sub>2.5</sub> have been identified for regular monitoring at all locations.

## UPSC Civil Services Examination Previous Year Question (PYQ)

### Prelims

**Q. In the cities of our country, which among the following atmospheric gases are normally considered in calculating the value of Air Quality Index? (2016)**

1. Carbon dioxide
2. Carbon monoxide
3. Nitrogen dioxide
4. Sulfur dioxide
5. Methane

Select the correct answer using the code given below:

- (a) 1, 2 and 3 only  
(b) 2, 3 and 4 only  
(c) 1, 4 and 5 only  
(d) 1, 2, 3, 4 and 5

**Ans: (b)**

### **Mains**

**Q.** Describe the key points of the revised Global Air Quality Guidelines (AQGs) recently released by the World Health Organisation (WHO). How are these different from its last update in 2005? What changes in India's National Clean Air Programme are required to achieve revised standards? **(2021)**

**Source: TH**

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