'Pollution and Health' Report

Why in News?

According to a recent Report **'Pollution and health: A Progress Update',** published in **The Lancet Planetary Health, Air Pollution was responsible for 16.7 lakh deaths in India in 2019, or 17.8% of all deaths**.

What are the Findings of Report Pollution and health'?

- **Global:**
  - **Air Pollution** alone contributes to 66.7 lakh deaths, which updates a previous analysis from 2015.
    - Overall, **pollution was responsible for an estimated 90 lakh deaths in 2019** (equivalent to one in six deaths worldwide), a number that has remained unchanged since the 2015 analysis.
  - **Ambient air pollution was responsible for 45 lakh deaths,** and hazardous chemical pollutants for 17 lakh, with 9 lakh deaths attributable to **lead pollution**.
- **In India:**
  - The majority of the 16.7 lakh air pollution-related deaths in India, around 9.8 lakh deaths were caused by **PM2.5 pollution**, and another 6.1 lakh by household air pollution.
  - Although the **number of deaths from pollution sources associated with extreme poverty** (such as indoor air pollution and water pollution) has decreased, these reductions are offset by increased deaths attributable to industrial pollution (such as ambient air pollution and chemical pollution).
  - Air pollution is **the most severe in the** Indo-Gangetic Plain.
    - This area **contains New Delhi and many of the most polluted cities**.
  - **Failure in Tackling Air Pollution:**
    - Burning of biomass in households was **the single largest cause of air pollution deaths in India,** followed by coal combustion and crop burning.
    - The number of deaths remains high despite India's considerable efforts against household air pollution, including through the **Pradhan Mantri Ujjwala Yojana programme**.
    - Despite a **National Clean Air Programme**, a Commission for Air Quality Management **in the National Capital Region,** India does not have a strong centralised administrative system to drive its air pollution control efforts and consequently improvements in overall air quality have been limited and uneven.
- **Lead pollution:**
  - An estimated **9 lakh people die every year globally due to lead pollution** and this number is likely to be an underestimate.
  - Earlier the source of lead pollution was from leaded petrol which was replaced with

unleaded petrol.

- However, **the other sources of lead exposure include unsound recycling of lead-acid batteries and e-waste without pollution controls,** spices that are contaminated with lead, pottery glazed with lead salts and lead in paint and other consumer products.
- Globally more than **80 crore children (India alone contributes to 27.5 crore children) are estimated to have blood lead concentrations** that exceed 3.5 µg/dL than the norm established by the US Centers for Disease Control and Prevention.

What are the Recommendations?

- Inclusion of **modern pollution prevention in multilateral development institutions'** country strategy frameworks.
- International organisations and national governments **need to continue expanding the focus on pollution as one of the triumvirate of global environmental issues,** alongside climate change and biodiversity.
- There is a need to encourage the **use of the health dimension as a key driver in policy and investment decisions,** using available **GBD (Global Burden of Disease)** information.
- Affected countries must **focus resources on addressing air pollution, lead pollution, and chemical pollution,** which are the key issues in modern pollution.
- A massive **rapid transition to wind and solar energy will reduce ambient air pollution** in addition to slowing down climate change.
- Private and government donors **need to allocate funding for pollution management to support** HPAP (Health and Pollution Action Plan) **prioritisation processes,** monitoring, and programme implementation.
- All sectors **need to integrate pollution control into plans to address other key threats such as climate, biodiversity, food, and agriculture**.
- All sectors need to support a **stronger stand on pollution in planetary health,** One Health**, and energy transition work**.
- International organisations **need to establish an SPI (Science Policy Interface) for pollution, similar to those for climate and biodiversity,** initially for chemicals, waste, and air pollution.
  - The **Science Policy Interface (SPI)** has been defined as "social processes which encompass relations between scientists and other actors in the policy process, and which allow for exchanges, co-evolution, and joint construction of knowledge with the aim of enriching decision-making
- International organisations **need to revise pollution tracking for the SDGs to correctly represent** the effect of chemicals pollution including heavy metals.
- The reporting **systems should allow burden of disease estimates** to be used in the absence of national data.
- International organisations and national governments **need to invest in generating data and analytics to underpin evidence-based interventions** to address environmental health risks.
  - Priority investments should include the establishment of reliable ground-level air quality monitoring networks, along with lead baseline and monitoring systems, and other chemical monitoring systems.
- International organisations and national governments **need to use uniform and appropriate sampling protocols to collect evidence on exposure to hazardous chemicals such** as lead, mercury, or chromium, which can be compared or generalised across LMICs (Low and Lower Middle-Income countries).

What are the Government Initiatives to Combat Air Pollution?

- **Graded Response Action Plan**
- **Polluter Pay principle**
- **Smog Tower**
- **Tallest Air Purifier**
- **National Clean Air Programme (NCAP)**
- **BS-VI vehicles**
- **New Commission for Air Quality Management**
- **Turbo Happy Seeder (THS)**
- **Air Quality and Weather Forecasting and Research (SAFAR)**

- **Dashboard for Monitoring Air Quality**
- **National Air Quality Index (AQI)**
- **Air (Prevention and Control of Pollution) Act, 1981**
- **Pradhan Mantri Ujjwala Yojana (PMUY)**

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Q. Which of the following are the reasons/factors for exposure to benzene pollution? (2020)

1. Automobile exhaust
2. Tobacco smoke
3. Wood burning
4. Using varnished wooden furniture
5. Using products made of polyurethane

Select the correct answer using the code given below:

(a) 1, 2 and 3 only

(b) 2 and 4 only

(c) 1, 3 and 4 only

(d) 1, 2, 3, 4 and 5

Ans: A

- Benzene (C6H6) is a colorless, flammable liquid with a sweet odor. It evaporates quickly when exposed to air. Benzene is formed from natural processes, such as volcanoes and forest fires, but most of the exposure to benzene results from human activities.
- The main sources of benzene pollution in the environment include automobile exhaust, industrial sources, Tobacco smoke, wood burning and fuel evaporation from gasoline filling stations. **Hence, 1, 2 and 3 are correct.**
- Some industries use Benzene to make other chemicals that are used to make plastics, furniture etc., they are not the direct sources of Benzene pollution. **Hence, 4 and 5 are not correct.**

Source: IE

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