UNEP: Air Pollution, Climate & Clean-Air Solutions

Prelims: *Current events of national and international importance | Environment*

Why in News?

A new UNEP assessment, ***"Hidden Assets: The Economic and Health Case for Climate and Clean Air Action"****, examines the benefits of tackling air pollution and climate change together.*

Key Findings of UNEP assessment – South Asia

- **Economic burden –** The current air pollution burden accounts for approximately 10% of South Asia's gross domestic product (GDP).
- **Benefit-Cost Ratio –** Implementing **25 integrated climate and clean-air solutions** in South Asia could yield approximately **$21 in economic benefits for every $1 invested**.
- Implementation of 25 targeted solutions could prevent damages equivalent to the following proportions of GDP:
    - Approximately 4% of GDP by 2035
    - Approximately 14.5% of GDP by 2100.
- These economic benefits include:
    - Lower healthcare expenditure
    - Higher labour productivity
    - Avoided physical damage
    - A reduction in premature deaths and improvements in overall population health.

Projected Global Economic Benefits

- At the global scale, each 1 dollar invested is projected to yield approximately 15 dollars in benefits.
- Implementation of the 25 proposed solutions could generate benefits equivalent to the following proportions of global GDP:
  - 2.8 percent of global gross domestic product (GDP) by 2035,
  - 4.5 percent by 2050,
  - and 11.4 percent by 2100.
- Even when non-market welfare benefits are excluded, the benefit is ~$4 for every $1 invested.

- **Global Health Burden**
- **Estimated Impacts for 2025 –** Anthropogenic outdoor air pollution, including fine particulate matter (PM2.5) and ozone, is associated with the following health outcomes:
    - **An estimated 6.4 million premature deaths globally.**
- Household air pollution is further associated with:
    - **An additional 2 million premature deaths**
    - This figure includes approximately **300,000 children**.
- Air pollution is also implicated in the following health conditions:
    - **An estimated 5.5 million new cases of childhood asthma**
    - **Approximately 2 million new cases of dementia projected for** 2025.
- **Cost of Delay –** Every year of delayed action can forfeit more than $1.5 trillion in combined annual market and non-market benefits.
- This figure represents approximately 0.5 per cent of global gross domestic product (GDP).
- **Duration of Implementation Delays –** The estimated global delay is approximately 7.5 to 8 years.
- **Primary contributing factor –** Institutional barriers account for approximately 2.4 years of delay.
- A delay of this magnitude could reduce the achievable emissions reductions by 2035

by approximately half.

Reference

UNEP | Hidden Assets