Human Health Impacts of Air Pollution

Why in news?

- The World Environment Day is being celebrated on June 5 every year.
- In this backdrop, the United Nations has warned that 9 out of 10 people on the planet are now breathing polluted air and nobody is safe from air pollution.

What causes air pollution?

- The five main sources of air pollution are -
    1. indoor burning of fossil fuels, woods and other biomass to cook, heat and light homes
    2. industry, including power generation such as coal-fired plants and diesel generators
    3. transport, especially vehicles with diesel engines
    4. agriculture, including livestock, which produces methane and ammonia, rice paddies, which produce methane, and the burning of agricultural waste
    5. open waste burning and organic waste in landfills
- Burning fossil fuels for power, transport and industry is a major contributor to air pollution.
- Some of the same pollutants contribute to both climate change and local air pollution, including black carbon or soot and methane.

How serious is air pollution?

- Air pollution has led to a growing global health crisis, which already causes about 7 million deaths per year according to WHO.
- It is as well the main source of planet-warming carbon emissions.
- In the 15 countries that emit the most planet-warming gases, the cost of air pollution for public health is estimated at more than 4% of GDP.
- In comparison, keeping heat to the Paris Agreement temperature limits would require investing about 1% of global GDP.

What are the evident human impacts of air pollution?

- **Air pollution** kills 800 people every hour or 13 every minute.

- This accounts for more than 3 times the amount of people who die from malaria, tuberculosis and AIDS combined each year.
- Air pollution is responsible for 26% of deaths from ischemic heart disease, 24% of deaths from strokes, 43% from chronic obstructive pulmonary disease and 29% from lung cancer.
- **Household air pollution** causes about 3.8 million premature deaths each year.
- The vast majority of them are in the developing world, and about 60% of these deaths are among women and children.
- 93% of **children** worldwide live in areas where air pollution exceeds WHO guidelines.
- 600,000 children below the age of 15 died from respiratory tract infections in 2016.
- In children, it is associated with low birth weight, asthma, childhood cancers, obesity, poor lung development and autism, among others.
- As many as 97% of **cities** in low- and middle-income countries with more than 100,000 inhabitants do not meet the WHO minimum air quality levels.
- In high-income countries, 29% of cities fall short of guidelines.
- Among **urban ambient air pollution** factors from fine particulate matter, -
    i. about 25% is contributed by traffic
    ii. 20% is contributed by domestic fuel burning
    iii. 15% is contributed by industrial activities including electricity generation
- Keeping global warming well below 2°C could save about one million lives a year by 2050 through reducing air pollution alone.

Source: Indian Express

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