Health Impact of Air Pollution - Disease Burden Study

Why in news?

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India State-Level Disease Burden Initiative recently released the estimates of reduction in life expectancy associated with air pollution.

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What is the initiative?

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- The India State-Level Disease Burden Initiative was launched in 2015.
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- The India State-Level Disease Burden Initiative is a venture of the
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i. Indian Council of Medical Research (ICMR)
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ii. Public Health Foundation of India (PHFI)
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iii. Institute for Health Metrics and Evaluation (IHME)
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- This comes in collaboration with the Ministry of Health and Family Welfare, along with experts and stakeholders associated with over 100 Indian institutions.
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- The Initiative makes assessment of the diseases causing the most premature deaths and ill-health in each state of the country.
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- The data are analysed using the standardised methods of the Global Burden of Disease Study.
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What are the key findings?

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- India, with 18% of the world's population, has a high 26% of the global premature deaths and disease burden by air pollution.
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- Moreover, one in eight deaths in India was attributable to air pollution in 2017.
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- This makes pollution a leading risk factor for death.
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- The estimate found that 12.4 lakh deaths in India in 2017 were due to air pollution.
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- This included 6.7 lakh deaths due to outdoor particulate matter air pollution and 4.8 lakh deaths due to household air pollution.
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- Over half of the deaths due to air pollution were in persons less than 70 years of age.
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- In 2017, 77% population of India was exposed to ambient PM2.5 above the recommended limit by the National Ambient Air Quality Standards.
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- The highest PM2.5 exposure level was in Delhi, followed by the other north Indian States of Uttar Pradesh, Bihar and Haryana.
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- **Effect** - Contrary to the popular association of pollution with respiratory diseases, poor air is responsible for heart diseases as well.
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- Disability-adjusted life years (DALYs) is the sum of years of potential life lost due to premature mortality and the years of productive life lost due to disability.
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- DALYs attributable to air pollution in India in 2017 for major non-communicable diseases were at least as high as those attributable to tobacco use.
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- The average life expectancy in India would have been 1.7 years higher if the air pollution levels were less than the minimal level causing health loss.
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- The highest increases in life expectancy would have been in the northern

States of Rajasthan (2.5 years), Uttar Pradesh (2.2 years) and Haryana (2.1 years).
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What does it call for?

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- Air pollution needs much more than ad-hoc reactions such as bans, fines and shutting down of power stations.
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- The variation between States in the exposure to outdoor and indoor air pollution is evident with the study.
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- This factor should thus be taken into account while planning policies to reduce exposure to pollution and its health impact.
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- The study also reveals air pollution is a year-round phenomenon, particularly in north India.
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- This causes health impacts far beyond respiratory illnesses, which calls for a holistic response.
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- With obvious links between pollution control and public health, there has to be collaboration between the ministries of health and environment.
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- Pollution control policies should include the combined expertise of public health professionals, transport sector specialists, environmentalists and urban planners.
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Source: The Hindu, Indian Express

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