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Lancet Report on Climate Change and Human Health

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Lancet's Countdown: Tracking Progress on Health and Climate Change 2018 report has recommended that Indian government must take a series of initiatives to mitigate the increased risks to health, and the loss of labour hours due to a surge in exposure to heatwave events in the country over the 2012-2016 period.

- The Lancet Countdown's 2018 report tracks 41 indicators across five key domains in health and climate change. It arrives at three key conclusions:
- From 2014-2017, the average length of heatwaves in India ranged from 3-4 days compared to the global average of 0.8-1.8 days.
- Almost 153 billion hours of labour were lost globally in 2017 due to heat, an increase of 62 billion hours from the year 2000.

Findings of the Report

- Present day changes in heat waves labour capacity, vector-borne disease, and food security provide early warning of compounded and overwhelming impacts expected if temperature continues to rise.
- A lack of progress in reducing emissions and building adaptive capacity threatens both human lives and the viability of the national health systems they depend on, with the potential to disrupt core public health infrastructure and overwhelm health services.
- Despite these delays, trends in a number of sectors see the beginning of a low-carbon transition, and it is clear that the nature and scale of the response to climate change will be the determining factor in shaping the health of nations for centuries to come.
- The number of hours of labour lost due to heat wave increased between 2000-2017 across India.
- In 2012, 20 million people were exposed to heatwaves, compared to 60 million in 2016 a 200% increase.

- For the agriculture sector alone, this rose to about 60,000 million hours in 2017, from about 40,000 million hours in 2000.
- Overall, across sectors India lost almost 75,000 million hours of labour in 2017, from about 43,000 million hours in 2000.
- The agriculture sector was more vulnerable compared to the industrial and service sectors because workers there were more likely to be exposed to heat.
- The findings are significant for **India as agriculture makes up 18% of the country's GDP** and employs almost half the population. Also, a fall in living standards, due to reduced precipitation and temperature changes, could therefore affect just over half of the population who are employed in agriculture related jobs.
- Developed in conjunction with the Public Health Foundation of India and their Center for Environmental Health, the Lancet has also come up with a brief for Indian policymakers. It provides strategic direction for policy makers in four key areas:
 - Health effects of heatwaves and change in labour capacity due to heat
 - Premature mortality from ambient air pollution by sector
 - Sustainable travel infrastructure and uptake
 - Media coverage of health and climate change

Recommendation of Report

Considering India is amongst the countries who most experience high social and economic costs from climate change the study makes several recommendations like:

- Identifying **"heat hot-spots"** through appropriate tracking of meteorological data.
- Promoting development and **implementation of local Heat Action Plans** with strategic inter-agency coordination, and a response which targets the most vulnerable groups.
- The report urges a **review of existing occupational health standards, labour laws and sectoral regulations for worker safety** in relation to climatic conditions.
- **Decrease health-harming air pollution** by carrying out source apportionment studies, emission inventories, and health impact assessments of ambient and household air pollution through Statewise Clean Air Action Plans, and use these findings to inform policies targeted at reducing the main sources of pollution via an inter-ministerial approach.
- **Carry out annual comprehensive city-level traffic diary surveys to guide urban infrastructure planning and facilitate solutions** which address growth in population and travel demands while promoting uptake of sustainable travel forms like walking and cycling.
- **Promote strategic media coverage of climate and health linkages at the state level**, in regional languages, to increase support for state-by-state climate mitigation and adaptation responses.

What is a Heat Wave?

- A Heat Wave is a period of **abnormally high temperatures, more than the normal maximum temperature** that occurs during the summer season in the North Western parts of India between March and June, and in some rare cases even extend till July.
- Depending on whether a place's historical temperature is 40 degree C or less, a 4.5 degree C (or greater) rise in temperature counts as a 'heat wave' and 6.5 degree C and more, a 'severe heat wave.'