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63 Yr

Pollution making N India weather more smog-prone: US study

Vaishnavi Chandrashekar
Seasonal weather conditions like calm winds and low temperatures are known to aggravate air pollution over north India at this time of year. But research suggests that increasing pollution has amplified some of these meteorological factors over the past few decades — which, in turn, may intensify smog further.

This pollution-weather loop is likely contributing to the current extreme haze in Delhi and other parts of the Indo-Gangetic plain, say experts. A study published last year showed that soot, black carbon and other kinds of aerosol pollution is magnifying the "temperature inversion" effect often seen in winter, in which warm air traps colder air on the surface below, preventing pollution from dissipating. That's because these aerosols have a warming effect on the lower troposphere — the lowest part of the atmosphere — while cooling the air on the surface below.

Aerosol pollution raises the stability of the lower troposphere and aggravates the temperature inversion that is happening naturally, said Ritesh Gautam, a senior researcher at Environmental Defence Fund in the US, who led the study along with NASA researchers. "This amplification effect seems to be strengthening decade on decade," Gautam said. The study found a nine-fold increase since 1990 in the number of days when visibility is less than 500 metres during Nov. There was a five-fold increase in such days in Dec-Jan, including in Delhi.

Researchers looked at data over four decades to understand the interaction of pollution and atmosphere over the Indo-Gangetic plain. They found aerosol pollution in Nov increased by around 90% between 2002 and 2019, likely due to the rise of crop burning. Exceptionally high aerosol pollution rose in Dec-Jan, too, by around 40%.

Those two decades saw a correspondingly large warming of the lower troposphere. The stability in this layer also showed an increase, with the height of the planetary boundary layer dropping since 1980. This layer acts like a dome confining the pollution to the ground, so any increase in its stability or decrease in its height would prolong or intensify smoggy conditions on the ground.

"The stability does not allow air to move out," said S N Tripathi, a senior scientist at IIT Kanpur. Another factor is increased relative humidity, perhaps due to increased irrigation. More moisture in the air means more droplets of fog or smog can form. The study found a 20% rise in surface humidity since 1980.

All these factors are coming together to create a "multiple whammy" for Delhi and other parts of north India, said Gautam. "You can't control the weather, but you can control the amount of pollution that is combining with the weather to produce this severe smog," he said.

The physics of this feedback cycle between pollution and atmospheric stability is known, but Gautam's study provides evidence of its effect over time, said Tripathi, who was not involved in that study. The long-term rise in lower tropospheric stability and relative humidity is also due to climate variability, said Chandra Venkatraman, an aerosol specialist at IIT Bombay. How much this meteorological change contributes to extreme smog is unclear.

Emissions remain the main driver of pollution, she noted. "Unabated emissions and increased secondary aerosol production under high stability and relative humidity conditions is leading to the extreme PM2.5 conditions over north India and Pakistan," she said. Transboundary pollution may also be playing a role in Delhi's current crisis, said Tripathi, adding that there seems to be a large pollution spike over Lahore.

STUDY HIGHLIGHT
> Between 2002-2019, 90% increase in air pollution from soot, black carbon, other particulates in N India
> 2-fold rise in freq of temp inversion in troposphere since 1980
> Temp inversion helps to warm air at high levels trapping cold ground, leaving no route for pollution
20% increase in near-surface humidity since 1980, also contributing to formation
5-fold increase in 3 days (less than 2-fold rise in Dec-J

Formulate dist- & city-level plans to fight pollution and its impact on health: Govt

TIMES NEWS NETWORK

New Delhi: The health ministry has asked all states and Union territories to formulate district- and city-level action plans to address air pollution and its impact on health of people. It has also instructed expansion of the sentinel hospital network to monitor illnesses linked to pollution.

Short-term exposure to high levels of pollutants can result in irritation of eyes, nose, throat and skin, coughing, breathing difficulty, wheezing, chest discomfort and headache. Vulnerable groups — small children and elderly — can experience more severe effects such as lower respiratory tract inflammation and infection, exacerbation of asthma, bronchitis or exacerbation of chronic illnesses such as chronic obstructive pulmonary disease, ischaemic heart diseases, and stroke.

The ministry has also shared an advisory with the states/UTs which says doctors and other staff at healthcare facilities should be oriented to manage the issues. It also stresses on the need to ensure availability of medicines needed to manage acute respiratory, heart-related or brain-related conditions and to have adequate oxygen supply, nebulisers and ventilators.

TN teacher refuses to marry without parents' nod, killed

Thanjavur: A 26-year-old woman, who taught in a school in Tamil Nadu's Thanjavur, was stabbed to death by her boyfriend on the school premises on Wednesday morning after she refused to marry him without her parents' permission.

M Ramani, a temporary Tamil teacher at Mallipattinam Govt Higher Secondary School, was stabbed on the neck with a knife by P Madhan, 28, outside the staff room around 10am. Though fellow teachers rushed her to hospital, she succumbed to injuries on the way. The accused has been nabbed.

CM M K Stalin announced a solatium of Rs 5 lakh from the CM's public relief fund for Ramani's family. Police said Madhan and Ramani were in love and both hailed from Chinnamanal village in Sethuvachathuram block. His family had met her family a few days ago and expressed a wish to get the duo married, but Ramani's parents were not interested. On Wednesday Madhan met Ramani in front of the staff room. He said he wanted to speak with her, but as she refused, Madhan got into a heated argument with her. At one point, he took out a knife and stabbed her on the neck and head.

School education minister Anbil Mahesh Poyyamozhi said a holiday was declared for the school. **tnw**

Odisha woman force-fed human excreta, tribals rise in protest

Balangir: A 30-year-old man allegedly assaulted and force-fed human excreta to a 20-year-old tribal woman and rubbed it on her face after she objected to him driving his tractor through her farmland, damaging standing crops, in Odisha's Balangir district, reports Avimash Mohanty. The assault on Nov 16 sparked protests in the region, with tribal groups forming Jirabandha villages to demand

GOVERNMENT OF HARYANA TENDER NOTICE

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1	MUNICIPAL CORPORATION GURGAON	BALANCE WORK OF PAVING AND LAYING OF SEWERAGE LINE IN SRV ROAD, ROAD NO.4, ZONE - II, GURGAON	20.11.2024 20.11.2024	1,00,18,190/-	http://www.mcdgurgaon.gov.in	99149486 mcdgurgaon@gmail.com
2	MUNICIPAL CORPORATION GURGAON	WORK OF SUPER SUPER VENTILATOR TO RELEASE CO2 GAS FROM STORAGE COMPARTMENT IN WARE HOUSING, DISTRICT - II, GURGAON	20.11.2024 20.11.2024	31,20 LACS	http://www.mcdgurgaon.gov.in	870251108 mcdgurgaon@gmail.com

FOR FURTHER INFORMATION KINDLY VISIT : www.etenders.hry.nic.in RO 202384

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1	HARYANA TOURISM CORPORATION	TENDERS OF AGENCY FOR REPAIRATION AND RESTORATION OF ARCHAEOLOGICAL MONUMENTS AND SERVICES INCLUDING OF FORTRESS INDEPENDENT MONUMENTS AND SERVICES FOR 20TH BIENNIAL INTERNATIONAL DAY OF MONUMENTS AND SITES (2024)	20.11.2024 20.11.2024	800	www.haryana.gov.in	94144127 haryana@haryanapcd.com

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E-mail: omfed@omfed.com
Date: 21.11.2024

E-TENDER NOTICE
OMFED invites sealed tenders from reputed Manufacturer/Authorized Distributor/Dealer & Supplier for supply of CHAFF CUTTER, CITY MACHINERY (ELECTRONICS) WITH GEAR BOX at OMFED Training Centre (OMTC), Near Phulakara, Bhubaneswar. The tender is invited on-line through e-procurement of Govt. of Odisha website <https://tenders.odisha.gov.in> and <http://www.omfed.com>. The Bid documents will be available in the website <https://tenders.odisha.gov.in> from 10:00 AM of 21.11.2024 to 5:00 PM of 08.12.2024. The Technical & Financial Bids shall be opened at 11:30 A.M. on 08.12.2024 at OMFED Corporate office in the presence of the interested bidders. The Management reserves the right to accept or reject any or all the bid document or part thereof without assigning any reason.
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06742540300/06742540273

OFFICE OF THE PRINCIPAL SMT. SUSHMA SWARAJ GOVT. COLLEGE FOR GIRLS, BALLABGARH

NOTICE Date: 20/11/2024

Memo No.:- GCG/BLB/2024/3208

The quotations for the canteen of Smt. Sushma Swaraj Govt. College for Girls, Ballabgarh are invited Interested can send their sealed quotation in the college latest by 13.12.2024. Terms & conditions could be inquired from the college notice board, Office or college website:- www.gcgballabgarh.ac.in.

Principal
Smt. Sushma Swaraj Govt. College for Girls Ballabgarh.

Issued through OPR, Gurgaon/Andh.No. 30412/20/12/2024

MUNICIPAL CORPORATION OF DELHI
ADVERTISMENT DEPARTMENT

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Jawahar Lal Nehru Marg, New Delhi-110002.
Ph-011-23227506, E-mail: ocadmcd@mcd.nic.in

SHORT NOTICE E-TENDER

Bids are invited on behalf of Commissioner, MCD through E-Tender Notice No.CO/Advt/E-Tender-09/2024-25/MCD/NIT/0-1887 dated 20.11.2024 for allotment of advertisement rights through Unipole Citizens Individual Utilities sites under the jurisdiction of MCD on monthly basis fee basis in Web based system (i.e. Technical and Financial) for an initial period of three years.

The Last Date of Submission of bids in above e-tender is 28.11.2024, till 16.00 Hours.

The detailed tender document is available on MCD's website i.e. www.mcdonline.nic.in and <https://etenders.gov.in/procure/app>.

Sd/-
Commercial Officer,
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Advertisement Department, MCD

भारतीय पुनर्वास परिषद्
सामाजिक न्याय और अधिकारिता मंत्रालय के अधीन एक सांविधिक निकाय
दिव्यांजन सशक्तिकरण विभाग, भारत सरकार

भारतीय पुनर्वास परिषद्, नई दिल्ली में अनुबंध के आधार पर एक (01) परामर्शदाता (हिंदी अधिकारी) (सेवानिवृत्त सरकारी कर्मचारी) को नियुक्त करने हेतु आदेशन आमंत्रित करता है।

2. नियुक्त हेतु विस्तृत नियम और शर्तें, घोषणा तथा अनुभव परिषद् की वेबसाइट www.rehabcouncil.nic.in पर उपलब्ध है। इच्छुक उम्मीदवार अपना आवेदन ऑनलाइन मोड के माध्यम से भेज सकते हैं। ऑनलाइन मोड के माध्यम से सप्ताहवार परी में विज्ञापन के प्रकाशन की तिथि से 21 दिनों के भीतर आवेदन करना है।

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Soban Singh Jeena Government Institute of Medical Science & Research Almora
Near Vikas Bhawan, Pandeykhola, Almora, Dist-Almora-263601 (Uttarakhand)
<http://www.ssjgmsalmora.org>