



Climate change



- World must remove 1 billion tonnes CO₂ by 2025 to meet climate goal: Report
- Ahmedabad, Pune among 9 cities to get 4-star rating for climate initiatives
- Global temperatures could rise by 1.5 degree Celsius within 5 years
- Arctic has warmed three times faster than Earth since 1971
- Researchers sees direct link between Cyclone Tauktae and climate change

Air quality



- Transport sector is now the biggest source of Mumbai's air pollution
- Study links air pollution to COVID-19 cases and deaths

Waste management



- 23 states at additional Covid risk due to bio-med waste
- MeitY formulates policy paper on circular economy to deal with e-waste.



World must remove 1 billion tonnes CO₂ by 2025 to meet climate goal:

Report. Without action to deliver 1 Gigatonne (Gt) of negative emissions globally by 2025, keeping global warming within the Paris Agreement target of 1.5°C cannot be achieved, according to the [report](#) by the Coalition for Negative Emissions, and consultancy firm McKinsey. It said countries will need to remove a billion tonnes of CO₂ from the atmosphere by 2025, if the Paris target is to be met, and more than one billion tonnes annually thereafter. The current pipeline of projects in development could

remove only around 150 million tonnes of CO₂ by 2025, well short of what is needed, the report said. Negative emission projects include bioenergy with technology to capture and storage carbon emissions, technology to directly capture and store emissions from the air and natural climate solutions such as afforestation. Currently removal technology is expensive and while many countries around the world have initiatives in place to put a price on CO₂ emissions, the prices are far too low to incentivise new projects. The report said scaling up the technology would lead to lower costs, with a likely average cost of 30-100 pounds (\$41-138) per tonne of CO₂ removed by 2050.

Ahmedabad, Pune among 9 cities to get 4-star rating for climate initiatives. Nine Indian cities have taken significant measures to mitigate the impacts of the climate crisis and inculcated a climate-sensitive approach to urban planning, according to the cities' readiness report on [Climate-Smart Cities Assessment Framework](#) released by the Ministry of Housing and Urban Affairs (MHUA). Ahmedabad, Indore, Pimpri Chinchwad, Vadodara, Vijayawada, Visakhapatnam, Pune, Rajkot, and Surat were adjudged top performers among 126 cities that participated in the second edition of the assessment launched in September. CS (Climate-Smart) is a unique national framework that covers almost every aspect that impacts climate in the cities. Water management, mobility (especially increasing public transport), green buildings, and urban planning are areas where there are lacunas that need to be improved.

India was the seventh most affected by the devastating impact of climate crisis globally in 2019, according to the [Global Climate Risk Index 2021](#).

Global temperatures could rise by 1.5 degrees Celsius within 5 years. There is about a 40% chance that the global average temperature for at least one of the next five years will be 1.5° Celsius higher than in pre-industrial times— and the odds are only going up. That level of temperature increase would most likely be temporary, according to an [Annual Climate Update](#) led by the UK Met Office and published by the World Meteorological Organisation. But the figure is significant because most global leaders committed to taking actions that would limit global warming to 1.5°C and well below 2°C by the end of the century when they signed the Paris Agreement in 2015. Global leaders are expected to present more ambitious climate goals ahead of the UN-sponsored COP26 climate talks, due to be held in Glasgow in November. Pressure from the public as well as international competition has generated momentum on the policy front in recent months, although significant issues remain unresolved, including the creation of an international carbon market that would put a price on emissions.

Average temperatures are likely to be at least 1°C warmer in each of the coming five years, with the WMO estimating they'll be between 0.9°C and 1.8°C.

Arctic has warmed three times faster than Earth since 1971. According to a scientific [report](#), the Arctic warmed three times faster than the planet as a whole between 1971 and 2019, a higher rate than previously thought, Each fraction of a degree makes a big difference: the chances of the ice disappearing entirely in summer -- before freezing again in winter -- are 10 times greater if Earth's

temperature rises by 2 degrees Celsius than if it rises by 1.5°C, goals laid out by the Paris Accord. Under most (greenhouse gas) emission scenarios, the vast majority of ... models project the first instance of a largely sea-ice-free Arctic in September occurring before 2050," the report said. According to forecasts cited in the report, by the end of the century average temperatures in the Arctic are expected to rise by between 3.3 and 10 degrees above the average for the period 1985-2014, with the final figure depending on future greenhouse gas emissions.

Researchers sees direct link between Cyclone Tauktae and climate change. Scientists and meteorologists have attributed the growing number of cyclones including the latest one, Tauktae, to climate change more so because of the intensity with which they have now started hitting the Arabian Sea. According to a paper by Climate Trends, a Delhi-based agency that works towards bringing awareness around climate change issues and low carbon development, cyclones are fueled by available heat in the water bodies and the conducive temperature for the intensification of the cyclone is 28°C and above. The Bay of Bengal is usually warmer than Arabian Sea and therefore hosts more tropical storms. The paper said that as a result, SSTs in the Arabian Sea are over the threshold values which leads to active convection, torrential rainfall, and intense cyclones. Recent cyclones like Ockhi, Fani, and Amphan have confirmed the trend as they have intensified from a weak cyclonic storm to an extremely severe cyclone in less than 24 hours due to exceptionally warm SSTs, the paper said.

[Business Standard](#), June 30, 2021 | [Hindustan Times](#), June 26, 2021 | [Deccan Herald](#), May 27, 2021 | [Deccan Herald](#), May 20, 2021 | [Business Standard](#), May 16, 2021



Transport sector is now the biggest source of Mumbai's air pollution. Tiny, deadly particles in Mumbai's air from the transport sector have nearly doubled over the past five years, making it now the biggest contributor to the city's already deteriorating air quality. A 2019-20 source estimation analysis for PM2.5 pollutant by the System of Air Quality Weather Forecasting And Research (SAFAR), under the Indian Institute of Tropical Meteorology (IITM) Pune, has revealed that the share of PM2.5 emissions coming the transport sector was 30.5% in 2019-20 as compared to 16% in 2016-17.

Study links air pollution to COVID-19 cases and deaths. A first of its kind pan India study says Mumbai and Pune are among hotspots where high air pollution from the transport and industrial sectors is related to a higher number of COVID-19 cases and deaths. The study titled '[Establishing a link between fine particulate matter \(PM2.5\) zones and COVID-19 over India based on anthropogenic emission sources and air quality data](#)' dealt with how people living in highly polluted areas are more vulnerable to coronavirus infections. In the study, COVID-19 cases were observed from March 2020 to November 2020, while national PM2.5 emissions load was estimated from the base year 2019. Of 16 cities across 36 states, Mumbai and Pune were evaluated in Maharashtra. Findings suggest a significant correlation between district level air pollution data and COVID-19 cases. It was found that regions using huge amounts of fossil fuels such as petrol, diesel and coal by combustion in transport and industrial activities also experience a far higher number of COVID-19 cases.

The study indicated that higher numbers of COVID-19 cases are found in States like Maharashtra, Uttar Pradesh, Delhi and Gujarat, where exposure to the prolonged high concentration of PM2.5 is relatively high, especially in the cities, due to over-use of fossil fuel.

[Deccan Herald](#), June 29, 2021 | [The Hindu](#), June 25, 2021



23 states at additional Covid risk due to bio-med waste. A gap analysis [study](#) conducted by the International Institute of Population Sciences indicates several states in the country are at risk of increased COVID-19 infections due to non-compliance of biomedical waste management rules. While the pandemic has led to a significant increase in biomedical waste generation, disposal facilities have not gone up proportionately, said the study. Global studies have associated increased Covid risks with a rise in biomedical waste (BMW). The study said 23 of the 35 states and Union territories, including Maharashtra, still follow deep burial methods, restricted by the Centre.

Maharashtra, Kerala, Gujarat, Andhra Pradesh and Delhi, generated over 70% of the Covid waste in the country. Statistics showed India generated 32,996 metric tonnes of Covid waste from June to December 2020. Maharashtra was the worst offender (789.9 metric tonnes a month).

MeitY formulates policy paper on circular economy to deal with e-waste. Aiming to deal with e-waste as part of the larger plan of the Indian government to encourage circular economy, or ensuring zero to minimal wastage in the use of electronics and electrical sector, the Ministry of Electronics and Information Technology (MeitY) has formulated a policy paper that deals with these issues. The paper, "Circular Economy in Electronics and Electrical Sector", was entrusted to MeitY by the NITI Aayog, and focuses on the life cycle of electronics including stages of raw material acquisition, design, manufacturing/production stage, consumption to end of life (e-waste) management, and secondary raw materials utilization. India is the third largest consumers of raw materials produced globally and estimated to consume nearly 15 billion tonnes of material by 2030 with the current economic trends.

[The Times of India, June 25, 2021](#) | [Business Standard, May 24, 2021](#)