

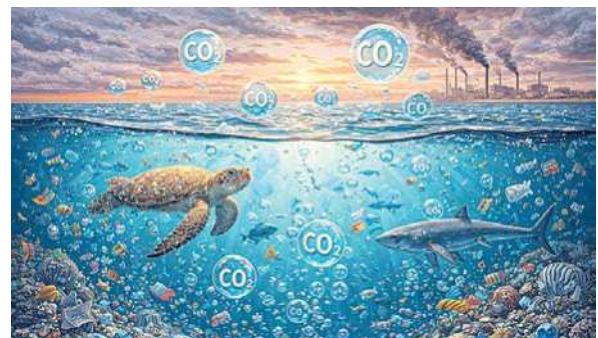
Oceans struggling to absorb CO₂, amid microplastic pollution: Study

Biological carbon pumping is a natural process by which an ocean transfers carbon from the atmosphere into deep sea

CHALLENGE FOR BLUE WATERS

- Microplastics interfere with this process
- Over 8.3 bn tonnes of plastic have been produced globally
- Toxins in microplastics ingested by living creatures
- Coordinated efforts needed to develop governance framework

NEW DELHI



The review highlights the close relationship between microplastic pollution and climate change, suggesting that MPs may significantly contribute to climate change and potentially further affect ocean health in the form of ocean warming and ocean acidification
- The authors

contribute to climate change and potentially further affect ocean health in the form of ocean warming and ocean acidification," the authors wrote. Microplastics are fragments of plastics sized under five millimetres. Studies have provided evidence of pres-

ence of microplastics across varied environments from deep ocean waters to human bodies.

Over 8.3 billion tonnes of plastic have been produced globally to date, with 80 per cent ending up in landfills or the environment -- only nine per cent of the massive volume is recycled, the researchers said. Toxins in microplastics are ingested by living creatures, including humans, triggering a range of diseases, disrupting ecosystems, harming aquatic life, and reducing soil fertility, the researchers said. The team called for an integrated approach as microplastic pollution and climate change cannot be addressed in isolation, they said.

Coordinated efforts are needed to develop governance frameworks that tackle both microplastic pollution and climate change, particularly their links to ocean acidification and warming, they added.

Reducing single-use plastics and improving waste management are among the recommendations the researchers suggested to preserve oceans and their ability to absorb carbon dioxide.

NHAI asks DoT, TRAI to boost mobile connectivity on 424 NH locations

Detailed information on these locations has been compiled and formally shared with the Department of Telecommunications and TRAI for necessary action

NEW DELHI



network connectivity on the National Highway corridors across the country.

As part of a comprehensive assessment undertaken by NHAI, 424 locations covering about 1,750 km across the National Highway network have been identified as critically affected due to non-availability of the mobile network connectivity.

"Detailed information on these locations has been compiled and formally shared with the Department of Telecommunications and TRAI for necessary action," said the NHAI.

Emphasising the public safety implications and the strategic significance of the National Highway network, NHAI has called for an expeditious and coordinated approach to improve mobile

other identified hazards.

The ministry further said that these alerts are intended to reach road users prior to their arrival at such locations, enabling timely caution and safer driving behaviour.

A list of accident-prone stretches frequently impacted by stray cattle has also been shared with TRAI.

"By seeking intervention to address mobile network connectivity gaps and enhancing safety along National Highways, NHAI reaffirms its commitment to working with all concerned stakeholders to ensure that National Highway network is not only physically well-connected but is also digitally enabled," according to an official statement.

NEW DELHI: realme, smartphone brand, on Tuesday announced the Photography Awards 2026, reinforcing its commitment to empower young creators through accessible, flagship-grade mobile imaging.

The 2026 edition will be evaluated by a distinguished jury comprising realme Chief Marketing Officer Chase Xu, renowned portrait photographer Zhou Run, street photographer Liao Yaku, European photographer and director Simon Bramann, and Indian visual artist Roshni Shah.

As part of the announcement, realme unveiled the next phase of the Photography Awards for the realme 16 Pro Series, with the theme "Real Celebrating Moments."

The new phase invites creators to capture moments of celebration, reunion, and personal milestones that define real life. Submissions will be open from January 6 to March 20, and entries can be submitted through a standard application process on the realme Photography Awards website.

The applicants can submit their application through the realme Photos app with one-click submission.

MICROPLASTICS could be impacting the oceans' ability to absorb carbon dioxide (CO₂) which is critical for regulating Earth's temperature, according to a research.

"Biological carbon pumping" is a natural process by which an ocean transfers carbon from the atmosphere into the deep sea layers.

"Microplastics (MPs) interfere with this process by reducing phytoplankton photosynthesis and impairing zooplankton metabolism," authors including those from the University of Sharjah in the United Arab Emirates said. Author Ihsanullah Obaidul-

At-home blood tests can accurately detect key biomarkers of Alzheimer's

Alzheimer's disease is usually confirmed through brain scans or spinal fluid tests, which are invasive and expensive

NEW DELHI

SIMPLE finger-prick blood samples that can be collected at home and mailed to laboratories without refrigeration or prior processing can help detect Alzheimer's disease biomarkers accurately, according to an international study.

The research, published in the journal *Nature Medicine*, represents the first large-scale validation of the accessible testing approach that removes geographic barriers



and opens brain disease research to global populations without requiring specialised health care infrastructure.

Alzheimer's disease is usually confirmed through brain scans or spinal fluid tests, which are invasive and expensive. Blood tests that measure biomarkers, such

as p-tau217, are emerging as accurate and accessible tools for detecting Alzheimer's disease.

"This breakthrough could fundamentally change how we conduct Alzheimer's research by proving that the same biomarkers doctors use to detect Alzheimer's pathology can be measured from a simple finger prick collected at home or in more remote community settings," said Professor Nicholas Ashton, senior director of US-based Banner Health.

Even after the landmark change -- and several other measures to encourage couples to have more kids -- the country has failed to boost

China failing to boost population after decade of ending one-child policy

BEIJING/NEW DELHI

CHINA is failing to boost its population even after a decade of ending the stringent, state-enforced birth control policy that skewed its demographics, according to a media report.

The one-child policy, officially enacted in 1980, was targeted at reining in China's runaway population growth. As the country faced significant demographic challenges, the notorious policy was ended in 2016.

Between 2022 and 2024, China's headcount shrank. As per United Nations projections, people aged over 60 now account for more than 20 per cent of the population of 1.4 billion people. They could make up a staggering half of the population by 2100.



the population rates, the KSLTV quoted CNN as saying.

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Kerala's 4.5 lakh Class 10 pupils plug into future with robotics

The programme, implemented by KITE - the technology arm of the General Education Department - is designed to familiarise students with robotics concepts

THIRUVANANTHAPURAM



of the largest school-level robotics training drives in the country.

The programme, implemented by KITE - the technology arm of the General Education Department - is designed to familiarise students with robotics concepts

newly introduced in the revised Class 10 Information Technology textbook.

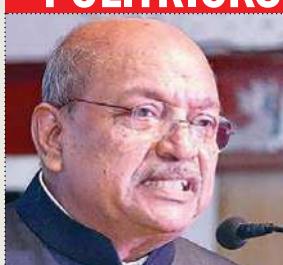
The workshops, to be completed in all schools by January 15, are aimed at equipping students with practical skills that will also help them prepare for the upcoming SSLC examinations. Training sessions are being conducted by Little KITES, India's largest student-led IT network, under the supervision of trained mentors in each school.

SWACHH BHARAT's FATAL BLIND SPOTS

A sweeping cleanliness drive collapses when toxic air, unsafe water and vanishing ecosystems are sidelined, turning sanitation into ceremony and allowing preventable illness, disasters and death to masquerade as development



POLITRICKS



BN Kumar

WHEN Prime Minister Narendra Modi launched the Swachh Bharat campaign from the Red Fort, he spoke of cleanliness as a civilisational duty. It was not, he said, merely about sweeping streets or building toilets, but about protecting public health, dignity and the future of the nation. Cleanliness, he argued, was foundational to a strong and healthy India.

That vision remains compelling. But more than a decade on, Swachh Bharat is confronting a fundamental contradiction that threatens to hollow out its promise. The campaign has focused overwhelmingly on what can be seen, counted and showcased, while what sustains life itself—clean air and clean water—remains dangerously sidelined.

Without clean water and breathable air, cleanliness is reduced to ceremony, offering spectacle without public health protection—an atrocity of governance that normalises preventable harm. The warning signs are no longer abstract. They are immediate, lived and, in some cases, tragic.

Indore, repeatedly crowned India's cleanest city, became a symbol of this contradiction when a water contamination epi-

sode triggered illness, deaths and fear among residents. Accolades did not protect households from unsafe water. Rankings did not translate into resilience. What the crisis exposed was not just an infrastructure failure, but a failure of definition. Clean streets and efficient waste collection could not compensate for weaknesses in water sourcing, treatment, monitoring and accountability.

Indore was not an outlier. It was a mirror

Clean water is not an accessory to sanitation; it is its foundation. Without safeguarding water sources, maintaining pipelines, ensuring treatment integrity and responding transparently to lapses, cleanliness becomes a surface-level exercise. The danger lies in mistaking appearance for assurance. When metrics reward what is visible and neglect what is vital, public health quietly erodes beneath the applause.

Air pollution tells an even more unforgiving story

In Delhi, breathing the air during peak pollution episodes is now routinely equated by scientists to smoking 20 to 30 cigarettes a day. In Navi Mumbai, hazardous air quality levels recently translated to inhaling the equivalent of seven to eight cigarettes daily, even for non-smokers. These are not rhetorical exaggerations. They are grounded in medical and epidemiological assessment.

Yet air pollution continues to be treated as episodic and seasonal—an inconvenience to be managed with emergency measures rather than as a chronic public health emergency demanding structural reform. Construction bans come and go. Advisories are

issued. Masks are recommended. But the deeper drivers—unchecked construction dust, fossil fuel dependence, industrial emissions, vehicular congestion and the steady erosion of green buffers—remain inadequately addressed.

**You can quit smoking
You cannot quit breathing**

A cleanliness programme that hides behind political rhetoric and blame games, and fails to confront this reality, represents a form of institutional self-denial sustained by brute legislative majorities. The contradiction extends into flagship welfare programmes. The construction of millions of toilets under Swachh Bharat was a remarkable administrative effort, but in many parts of rural and peri-urban India, toilets were built without reliable water connections. In such cases, usage predictably declined. Toilets became unusable, abandoned or repurposed, even as official records continued to count them as successes.

Sanitation infrastructure without water is not sanitation. It is poor planning, elevated into policy.

The same pattern surfaced in the Ujjwala LPG scheme. Conceived to liberate women from smoke-filled kitchens and indoor air pollution, the programme delivered real initial gains through widespread connections. Over time, however, high refill costs and inconsistent supply pushed many households back to firewood and biomass. The health risks returned quietly, without ceremony or acknowledgment.

The intent was transformative. The follow-through was not.

These gaps between announcement and endurance are

symptoms of a deeper malaise: environmental systems are treated as peripheral even as they determine the success or failure of social interventions.

As air quality deteriorates and water sources degrade, India's green cover continues to vanish. Urban forests are cleared in the name of development. Mangroves are reclaimed. Wetlands are filled. Hill systems are drilled, blasted and destabilised. Trees are promised as compensation—often on paper, rarely in survival rates. Ecological costs are postponed until disaster forces recognition.

This is not a baseless or generalised political claim. The consequences of these sustained, anti-nature interventions are too stark to dismiss.

Landslides, floods and struc-

tural collapses are routinely described as "natural".
**They are not.
They are policy outcomes.**

This reality is starkly illustrated by the government's position on hill tunnelling. Through responses to Right to Information applications, it has emerged that tunnelling through hills for road projects does not require a separate environmental impact assessment under existing regulations. While highways attract scrutiny, the act of drilling and blasting through ecologically fragile hills does not automatically trigger environmental clearance.

In Navi Mumbai, the ₹2,100-crore Kharghar-Turbhe Link Road cuts twin tunnels through the already stressed Kharghar-Parsik hill range near

Pandavkada. Forest land diversion has been approved. Environmental clearance specifically for hill tunnelling has not. Activists warn that such regulatory interpretations effectively throw hills open to unchecked exploitation, even allowing mining-like activity to masquerade as infrastructure development.

Blasting hills without environmental assessment is not a technical oversight. It is a calculated risk imposed on ecosystems and communities. Recent tunnel collapses and landslides across multiple states stand as grim reminders of what happens when geological and ecological safeguards are treated as inconveniences rather than necessities.

**We worship nature
We dismantle it administratively**

India prides itself on revering the five elements—earth, water, fire, air and space. Rivers are worshipped as goddesses. Mountains are sacred in scripture. Yet untreated sewage flows into waterways, forests are fragmented, and air grows toxic with alarming regularity. The Ganga and Yamuna action plans have consumed thousands of crores with limited outcomes, while most other rivers—from the northeast to central and southern India—remain outside the national conversation altogether.

Pollution does not disappear. It merely moves downstream.

The tragedy is not a lack of knowledge or capacity. It is the absence of accountability.

India does not lack solutions. It lacks integration.

Cleanliness cannot be compartmentalised into departments or reduced to scorecards. It must

encompass air, water, land and ecosystems as a single, inter-linked system. Toilets need water. Clean fuel needs affordability. Roads need environmental scrutiny. Development without safeguards is not progress; it is deferred damage.

Above all, accountability must travel upward—from the panchayat that approves quarrying to the municipality that permits reckless construction, from state governments that ignore pollution data to Parliament that dilutes environmental protections. Elected representatives are not insulated from polluted air or contaminated water. They breathe the same air. Their families face the same risks.

Public office does not confer ecological immunity.

Swachh Bharat was never meant to be cosmetic. It was meant to be civilisational. Until clean air and clean water are treated as non-negotiable pillars of the mission, cleanliness will remain superficial and public health will continue to erode quietly.

The choice before India is clear. We can keep sweeping what is visible, or confront what is killing us silently. A truly clean India begins not with a ceremonial broom, but with the courage, commitment and accountability to protect the air we breathe and the water that sustains life—at the very core of the constitutional right to live with dignity under Article 21.

(The columnist is a Mumbai-based author and independent media veteran, running websites and a youtube channel known for his thought-provoking messaging.)



Prime Minister Narendra Modi called cleanliness a national duty tied to public health and dignity. That promise rings hollow when toxic air, unsafe water, collapsing hills and vanishing green cover are ignored, turning Swachh Bharat into ceremony while preventable disease, disasters and environmental decline quietly intensify across India