

JANUARY 2025 VOL 1 1ST JAN - 15TH JAN

JAN 2025 VOL 1

IMPORTANT EVENTS

DETAILS OF IMPORTANT EVENTS

IMPORTANT DATES

IMPORTANT DATES
RELATED TO JANUARY

EXPLANATIONS

DETAILED EXPLANATION OF EACH EVENT

1ST JAN 2025

- The Uttar Pradesh government has announced the 'Sanskriti Utsava' from January 2 to January 26, 2025. This event celebrates the state's foundation day and aims to promote talent in various art forms. The festival will include competitions at different levels across the state, providing a platform for emerging artists.
- The 59th Executive Committee meeting of the National Mission for Clean Ganga (NMCG) has recently taken place. Chaired by Shri Rajeev Kumar Mital, this meeting focused on approving vital projects aimed at the conservation and rejuvenation of the Ganga River. The initiatives are designed to promote cleanliness and sustainable development while preserving the river's environmental and cultural significance.







- The recent declaration of the Wayanad landslides as a disaster of "severe nature" marks governmental response. This decision follows extensive criticism regarding the lack of financial aid for the victims. The landslides occurred on July 30, resulting in over 200 fatalities, numerous injuries, and the displacement of thousands in the region.
- The Uttarakhand Forest Department has established two gardens in Haldwani, showcasing plant species referenced in ancient Indian epics. These gardens, named Ramayana Vatika and Mahabharata Vatika, aim to highlight the ecological wisdom embedded in these texts.

2ND JAN 2025

• The Optional Practical Training (OPT) programme has become a focal point of discussion among supporters of US President-elect Donald Trump's 'Make America Great Again' (MAGA) initiative. This programme serves as a critical pathway for international students seeking to secure an H-1B visa. It allows students to gain work experience in their field of study, which enhances their employability in the competitive US job market.





 A surprising event unfolded in Mohangarh, Rajasthan. During a tubewell drilling operation, water unexpectedly gushed from the ground, prompting speculation about the ancient Saraswati River's resurgence. However, experts clarified that this phenomenon was likely due to the presence of an artesian well, a natural water source under pressure.

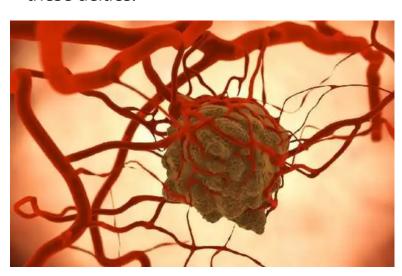


The Indian Space Research
Organisation (ISRO) is set to make
history by launching an American
communications satellite. This is the
first time an American company is
using an Indian rocket for such a large
and advanced satellite. The mission is
expected to occur in February or
March 2025.

3RD JAN 2025



The Uttarakhand government inaugurated the winter Char Dham circuit on December 8, 2024. This initiative aims to attract tourists during the off-season winter months. The Char Dham includes four sacred Hindu shrines - Gangotri, Yamunotri, Kedarnath, and Badrinath. Traditionally, these sites experience heavy snowfall, making them inaccessible from late November to early May. However, the winter Char Dham seeks to promote tourism in the region, allowing pilgrims to visit the winter abodes of these deities.



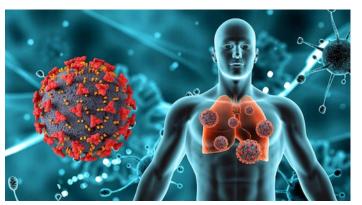
Scrub typhus is a bacterial infection that is currently spreading in Tamil Nadu. Districts such as Chennai, Kanchipuram, Tirupattur, Tiruvallur, Chengalpattu, Ranipet, and Vellore have reported numerous cases. The Public Health Department has issued an alert, urging immediate measures to control the outbreak.



 Recent advancements in cancer treatment have emerged from researchers at the Indian Institute of Technology-Guwahati (IIT-G) and the Bose Institute, Kolkata. They have developed an innovative injectable hydrogel that offers localised treatment for cancer, particularly breast cancer.

 Chhattisgarh has launched a pioneering initiative that integrates the ecological services of its forests into the Green Gross Domestic Product (Green GDP). This innovative approach aims to tell the relationship between the environmental contributions of forests and the state's economic growth. The initiative seeks to ensure sustainable economic development while preserving the environment for future generations.





 China's disease control authority recently announced a pilot monitoring system aimed at tracking pneumonia of unknown origin. This initiative comes in response to an expected rise in respiratory infections during the winter months.



Mars Chopper, a new drone designed to succeed the Ingenuity helicopter. Ingenuity operated on Mars for nearly three years, far exceeding its initial mission parameters. The Mars Chopper represents advancement in aerial exploration capabilities on the Red Planet.

In a notable archaeological find,
 Saikumar K. from the Team of
 Research on Culture and Heritage
 (TORCH) has unearthed a three foot idol of the 13th Century saint,
 Narahari Tirtha. This discovery
 adds to the historical narrative
 surrounding Narahari, who is
 believed to have originated from
 Chikakolu, present-day Srikakulam.
 His lineage traces back to
 aristocrats within the Gajapati
 empire, situated in modern Odisha.





The biofuel sector is currently at important point where sustainable development, energy security, and climate action converge. The Feedstock-Technology-Product (F-T-P) approach provides a structured framework that integrates biofuels into various industries, particularly sugar. This method aligns with India's National Policy on Biofuels 2018 and aims to make the sugar industry a driver of sustainable growth.



• The Union government amended the Rules of the Right to Education Act, 2009. This change allows schools to detain students in Classes 5 and 8 if they fail to meet promotion criteria after year-end examinations. Students will have the opportunity for a re-examination after two months of additional teaching. This amendment marks shift from the original nodetention policy established in 2009, which aimed to alleviate pressure on students.

• The Uttarakhand State Disaster Management Authority (USDMA) is actively working on a comprehensive action plan to study and monitor glacial lakes in the region. This initiative aims to establish early warning systems to prevent disasters such as glacial lake outburst floods (GLOFs). The National Disaster Management Authority (NDMA) has identified 13 glacial lakes in Uttarakhand, with five classified as high-risk.





- The Indian Space Research
 Organisation (ISRO) has made strides in
 space exploration with two recent
 experiments. On January 4, 2025, ISRO
 announced the successful sprouting of
 cowpea seeds in space, marking a
 major milestone in agricultural research
 beyond Earth. This achievement
 occurred shortly after the PSLV-C60
 SpaDeX mission, which launched on
 December 30, 2024, carrying 24
 payloads, including the innovative PS4 Orbital Experiment Module (POEM-4).
 - Recent research has revealed a promising approach to combat malaria by targeting the lipid transport in Anopheles gambiae mosquitoes. The study, published in PLOS Biology, marks the critical role of lipophorin in the development of Plasmodium falciparum, the malaria parasite. By inhibiting lipid metabolism, particularly through the use of broad-spectrum lipase inhibitors, researchers demonstrated that it is possible to induce sterility in female mosquitoes.







- Alcohol consumption has been identified as the third leading preventable cause of cancer in the United States. This information comes from a recent report by the US Surgeon General. The report reveals that alcohol contributes to approximately 100,000 cancer cases and 20,000 related deaths annually. It also advocates for warning labels on alcoholic beverages, similar to those on cigarette packs.
- Climate change has been wreaking havoc on the planet's water cycle, leading to severe consequences for ecosystems and human populations. The 2024 Global Water Monitor Report marks the alarming effects of climate change on water distribution and availability. Researchers from various countries, including Australia, Saudi Arabia, China, and Germany, compiled the report using data from ground stations and satellites.
- On January 6, 2025, several workers became trapped for over 12 hours in a coal "rat-hole" mine in Dima Hasao district, Assam. The mine was flooded, prompting ongoing rescue operations. Two motor pumps are currently at work to remove water from the mine, which is reportedly several hundred feet deep. Rat-hole mining is a traditional method used to extract coal from narrow seams. This technique is particularly common in Meghalaya. The term "rat hole" describes the small pits dug into the earth, which are just large enough for a miner to enter.

 Recent advancements in genetic research have opened new avenues for understanding ancient human populations. The analysis of ancient DNA (aDNA) from burial sites, mass graves, and war graves provides essential vital information about population dynamics and migrations. Researchers utilise these genetic materials to explore the complexities of ancestry and cultural transitions throughout history.





January 2015, has transformed India's approach to energy efficiency. This initiative, initially known as the Domestic Efficient Lighting Programme, aimed to make affordable LED lighting accessible to millions of households. As of January 2025, over 36 crore LED bulbs have been distributed, marking milestone in energy conservation and economic savings for Indian families.



The Green Hydrogen Hub (GHH) project has been officially launched in Pudimadaka, Anakapalli district, Andhra Pradesh. This initiative, part of the National Green Hydrogen Mission, aims to establish India's first integrated green hydrogen production facility. Prime Minister Narendra Modi will virtually lay the foundation stone on January 8, 2025. This project represents step towards enhancing India's renewable energy capacity and achieving its net zero goals by 2070.

 Recent advancements in genetic engineering have opened new avenues for pest control. Australian scientists have proposed a novel method to combat tropical diseases caused by mosquitoes.
 This method involves genetically modifying male mosquitoes to produce toxic semen that kills female mosquitoes after mating.
 Female mosquitoes are the primary vectors for diseases such as malaria and dengue fever, making them the target of this innovative approach.





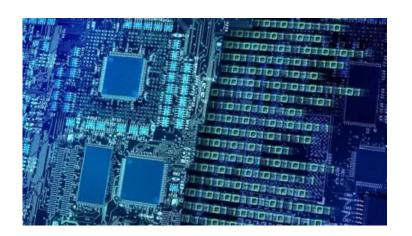


- The NISAR mission, a collaborative effort between NASA and ISRO, aims to revolutionise Earth observation. To be launched in March 2025 from ISRO's Satish Dhawan Space Centre, this dualband radar satellite will monitor Earth's land and ice surfaces with remarkable precision. The project originated from an agreement signed in 2014, reflecting a commitment to track environmental changes and assess damage from natural disasters.
- Recent research in Kerala has
 revealed two rare species belonging
 to the Order Neuroptera. The
 Shadpada Entomology Research
 Lab (SERL) at Christ College has
 documented these findings, which
 include Glenochrysa zeylanica and
 Indophanes barbara. The
 rediscovery of Glenochrysa
 zeylanica marks its first report in
 India after being thought endemic to
 Sri Lanka for over a century.

- Recent assessments reveal alarming statistics regarding freshwater biodiversity. A study conducted by the International Union for Conservation of Nature (IUCN) indicates that nearly 25 per cent of the 23,496 species examined are threatened with extinction. This analysis marks the urgent need for conservation efforts in critical habitats.
- Recent advancements in climate science have emerged from Antarctica, where an international team of scientists successfully drilled an ice core estimated to be 1.2 million years old. This monumental achievement involved drilling nearly 2.8 kilometres deep to reach the Antarctic bedrock.
- Recent advancements in quantum computing have positioned the technology at the forefront of scientific innovation. As the United Nations has proclaimed 2025 as the International Year of Quantum Science and Technology, the global race to develop full-scale quantum computers intensifies. This technology promises to revolutionise data processing capabilities, offering unprecedented advantages in various fields, including medicine, chemistry, and materials science.



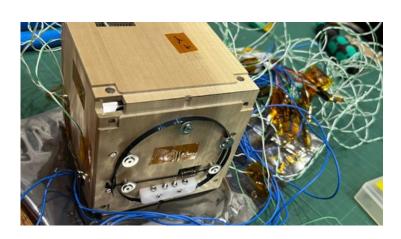




 The launch of LingoSat marks milestone in space exploration. This unique wooden satellite is the first of its kind to be sent into Earth's orbit. It was delivered by the International Space Station, diverging from traditional rocket launches. Built as a collaborative effort between Kyoto University and Sumitomo Forestry in Japan, LingoSat aims to assess the viability of wood as a material for satellites.

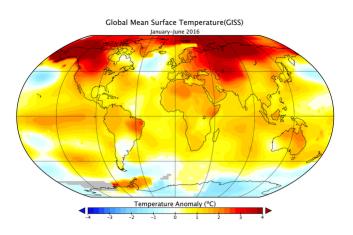






- Mazagon Dock Shipbuilders Limited (MDL) recently delivered the final submarine of the Scorpene class to the Indian Navy. This submarine, named INS Vaghsheer, represents milestone in India's naval capabilities. The delivery occurred after extensive testing to ensure the submarine is combat-ready. MDL's achievement marks India's growing reputation as a submarine-building nation.
- Recent conducted research in Malaysian Sabah. Borneo. has showcased the detrimental effects of tropical forest loss on biodiversity and ecosystem functioning. The study was part of Stability of Altered Forest Ecosystems (SAFE) Project, which began in 2011.

- In 2024, the Earth experienced unprecedented warming, officially breaching the 1.5 degrees Celsius threshold above pre-industrial levels. This marked the first time a calendar year exceeded this critical limit, with the average temperature recorded at 1.6 degrees Celsius higher than the preindustrial baseline.
- The Indian Space Research Organisation (ISRO) is set to achieve milestone in space exploration. Over the next few days, ISRO will attempt to dock two small satellites in orbit, marking India's first foray into this complex operation. If successful, India will join the ranks of the United States, Russia, and China, becoming the fourth nation to possess docking capabilities.
- Hindustan Aeronautics Limited (HAL) has marked achievement in military aviation with the engine ground run of the Combat Air Teaming System (CATS) Warrior on January 11, 2025. This event precedes Aero India 2025, denoting HAL's commitment to advancing India's defence capabilities. CATS is an innovative air combat system that integrates manned and unmanned aircraft to enhance operational efficiency and reduce risks to pilots.







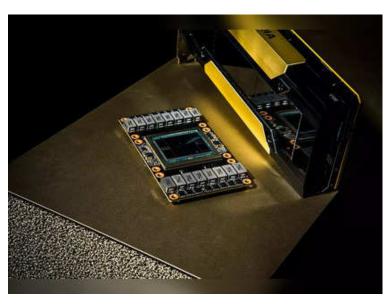


- Indonesian President Prabowo Subianto will attend India's Republic Day celebrations as the Chief Guest. This visit marks diplomatic engagement between Indonesia and India.
- The Chief Election
 Commissioner (CEC) and
 Election Commissioners (ECs)
 in India are very important
 figures in ensuring free and fair
 elections. Traditionally, the next
 senior-most Election
 Commissioner succeeded the
 CEC. However, the Chief
 Election Commissioner and
 Other Election Commissioners
 (Appointment, Conditions of
 Service and Term of Office)
 Act, 2023, has introduced
 change to this process.

India's membership in the UN
 Committee of Experts on Big Data and
 Data Science for Official Statistics (UN CEBD) marks milestone in the nation's
 statistical landscape. This development
 reflects India's commitment to utilising
 data and technology for informed
 decision-making. The UN-CEBD aims
 to explore the benefits and challenges
 associated with <u>Big Data</u>, particularly in
 monitoring sustainable development
 goals. As a committee member, India
 will influence global standards and
 practices in the realm of official
 statistics.

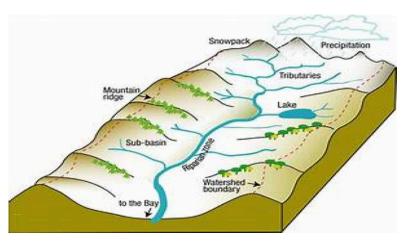


Recently, Keoladeo National Park in Rajasthan has gained attention for the large presence of the rare carnivorous plant, Utricularia, commonly known as bladderworts. This season marks increase in their numbers, enhancing the park's biodiversity. Experts highlight that the presence of Utricularia contributes positively to the ecosystem by preying on small insects, thus maintaining environmental balance. This plant plays an important role in controlling insect populations, which is crucial for the local ecosystem.





- The Biden administration has introduced a new framework for exporting advanced computer chips integral to artificial intelligence (AI) development.
 This proposal aims to address national security concerns while considering the economic interests of chip producers and international partners.
- The Watershed Development
 Component of the Pradhan
 Mantri Krishi Sinchayee Yojana
 (WDC-PMKSY) is focused on
 revitalising degraded and rainfed
 areas across India. Recent
 evaluations of past projects have
 shown promising results,
 including improved groundwater
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- The Centre for Development of Telematics (C-DOT) has recently partnered with the Indian Institute of Technology Mandi (IIT Mandi) and IIT Jammu. This collaboration aims to develop a Wideband Spectrum-Sensor ASIC-Chip to enhance spectrum utilisation.
- Mission Mausam was inaugurated by Prime Minister Narendra Modi on January 14, 2025. This initiative marks the 150th anniversary of the India Meteorological Department (IMD), which was established in 1875. The mission aims to enhance India's weather forecasting and climate resilience capabilities







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CURRENT AFFAIRS

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