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MAY 2024

MONTHLY CURRENT AFFAIRS

DETAILED EXPLANATION OF CURRENT AFFAIRS

National | International | Sports | Defence | Environment | Miscellaneous

CONTENT

11

SCHEDULE
DEMAND
OF LADAKH?

12

UTTARAKHANDPLANS
AUTHORITY TOREGULATE
CHAR DHAM YATRA

14

FIVE STATES
SHOW INTEREST IN **AADHAAR**
BASED AUTHENTICATION
FOR GST REGISTRATION

15

LONG **STANDING**
NAGA CONFLICT

16

TAMIL NADU
BANS 23 'FEROCIOUS'
DOG BREEDS AFTER
ATTACK

17

PACIFIC RING
Of FIRE

18 MANIPUR REPORTS

27 UN GENERAL ASSEMBLY SUPPORTS PALESTINIAN UN MEMBERSHIP BID

19 WORLD MIGRATION

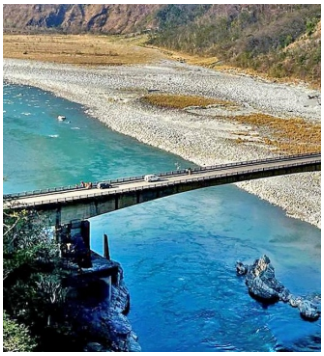
28 AFGHANISTAN FLASH FLOODS CAUSE SEVERE DAMAGE

21 WHAT IS CLIMATISATION OF FORESTS?

29 ICMR WARNS PACKAGED FOOD LABELS MAY MISLEAD CONSUMERS

23 WHAT ARE AI DEADBOTS?

30 INDIA TO SPEND ₹2 CRORE PER KM ON CHINA BORDER ROADS



24 KERALA TEMPLES BAN OLEANDER AFTER WOMAN'S DEATH

31 2024 WORLD WILDLIFE CRIME REPORT

25 ISRO SUCCESSFULLY TESTS 3D-PRINTED ROCKET ENGINE

32 KENYA FACES CHOLERA OUTBREAK AMID HEAVY RAINS AND FLOODING

33

GOOGLE LAUNCHES AI-POWERED SCAM PROTECTION AT I/O 2024

38

INDIA,FRANCE INDIA, FRANCE SET TO NEGOTIATE RAFALE MARINE JET DEAL

34

CHINA,PAKISTAN DISCUSS CELERATING CPEC PROJECTS AND INFRASTRUCTURE

39

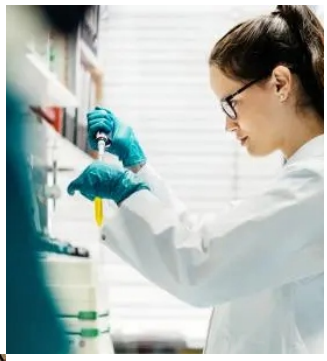
KERALA PLANS ROUND CALENDAR TO COMBAT NIPAH VIRUS

35

CATERPILLARS SENSE ELECTRIC FIELDS TO DETECT PREDATORS

40

ATMF REPORT TACKLES GLOBAL ACCESS TO ANTIBIOTICS



36

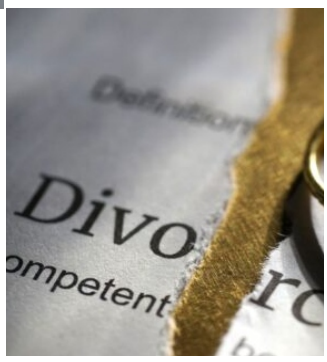
IRAN BOOSTS NEAR WEAPONS

41

AMAZON RAINFOREST FACING CRITICAL RECOVERY CHALLENGES

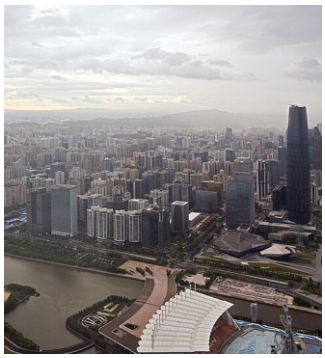
37

PHILIPPINES' LOWER HOUSE



42

URBANIZATION BOOSTS NIGHT-TIME WARMING IN I NDIAN CITIES:STUDY



37

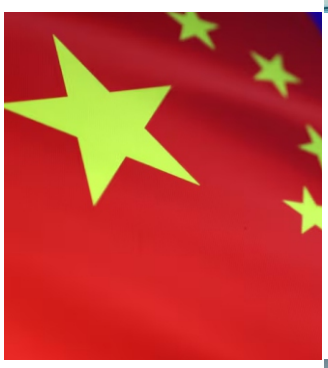
THAILAND INITIATES FIRST SENATE ELECTION SINCE 2014 COUP

43

GOVERNMENT CRACKS DOWN ON SMS SCAM ENTITIES

45 RBI GOVERNOR UNVEILS KEY FINANCIAL INITIATIVES FOR 2023

45 NEW ZEALAND VISA RULE MANDATORY ENGLISH TRANSLATIONS FROM 2024

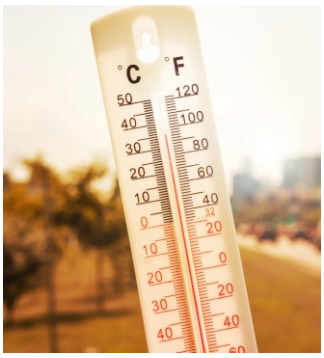


46 CHINA PROPOSES 'ONE PERSON, ONE FILE' SURVEILLANCE ESCALATION

47 DUBAI LAUNCHES GAMING VISA FOR GLOBAL INDUSTRY LEADERSHIP

48 IIT BOMBAY,TCS DEVELOP INDIA'S FIRST QUANTUM DIAMOND MICROCHIP IMAGER

49 INDIAN PEACE KEEPER WINS 2023 UN MILITAR GENDER ADVOCATE AWARD



50 WHAT IS WET BULB TEMPERATURE? EXPLAINED

51 AMRUT SCHEME

52 DENGUE OUTBREAKS

53 NEWS CORP SIGNS CONTENT DEAL WITH OPEN AI

54 IRDAI SETS NEW GUIDELINES FOR FASTER HEALTH INSURANCE CLAIMS

55 KAZA SUMMIT UNDERWAY IN ZAMBIA

56
INDIA BOOSTS LAB-GROWN DIAMOND SECTOR, KOREANS INNOVATE PRODUCTION

57
ADB COMMITS $2.6 BILLION TO INDIA FOR VARIOUS PROJECTS

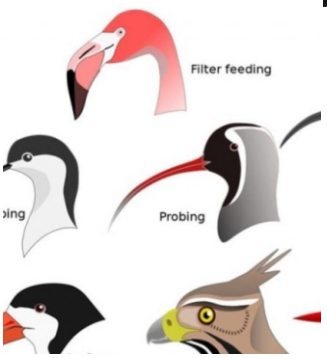
58
SWEDEN DONATES ADVANCED RADAR PLANES TO UKRAINE

59
INDIA'S RUDRAM IIMISSILE TEST-FIRES SUCCESSFULLY OFF ODISHA COAST

60
VENUS SHOWS INCREASED VOLCANIC ACTIVITY, STUDY REVEALS

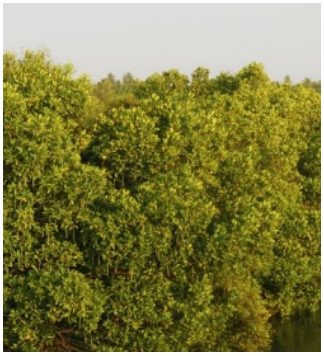
61
IISC DEVELOPS SAFER PROTEIN PRODUCTION USING MSG

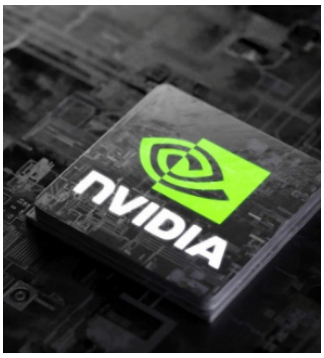
62
RBI RELEASES FINAL GUIDELINES FOR FINTECH SRO



63
IIT BOMBAY STUDY EXPLORES NON GEOGRAPHIC SPECIATION MECHANISMS

64
MANGROVES IN SOUTH INDIA





65
NVIDIA STOCK HITS RECORD HIGH, APPROACHES APPLE'S VALUE

66
OSIRIS-APEX

67
AGNIKUL COSMOS

68
RELIANCE

nce
Limited

SERUM INSTITUTE OF INDIA
Cyrus Poonawalla Group

75
SPACEX MEGA -ROCKET STARSHIP'S NEXT LAUNCH ON JUNE 5

69
AI HELPS SEARCH FOR ENDANGERED PLANT'S FEMALE PARTNER

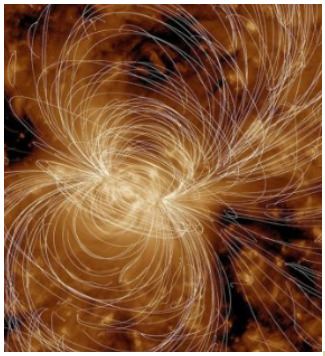
76
PHILIPPINES ATTRACT MORE INDIAN MEDICAL STUDENTS

70
UK COMMITTEE ADVISES KEEPING GRADUATE ROUTE VISA UNCHANGED

77
MYANMAR JUNTA REVIVES $3.6 BILLION CHINESE-BACKED DAM PROJECT

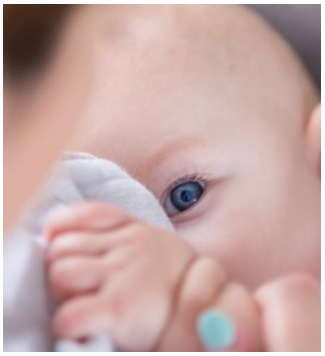
World Health Organization

71
WHO NEARS DEAL ON NEW PANDEMIC RESPONSE RULES



78
RESEARCH SHOWS SUN'S MAGNETIC FIELD ORIGINATES CLOSER TO SURFACE

72
BREASTFEEDING AS CARBON OFFSET EMERGES



79
ANASUYA SENGUPTA WINS BEST ACTRESS AT CANNES

74
COVID-19 ERASES DECADE OF LIFE EXPECTANCY GAINS

79
SEBI CRACKS DOWN ON GAMING APPS INVOLVED IN VIRTUAL TRADING

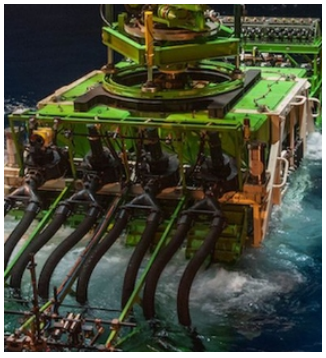
80
PAKISTAN REPORTS THIRD POLIO CASE AMID TRANSMISSION CONCERNS

82
CENTRE SANCTIONS

83
GOVERNMENT EXTENDS ARMY CHIEF GEN MANOJ PANDE'S TENURE

83
DOT,TELCOS DEVELOP MECHANISM TO BLOCK SPOOF OVERSEAS CALLS

84
ENVIRONMENTAL ACTIVISTS SUE NORWAY OVER ITS DEEP-SEA MINING PLANS



85
VIRUPAKSHA TEMPLE COLLAPSE: KEY UPDATES

87
INDIA'S ' ALL WE IMAGINE AS LIGHT' WINS CANNES GRAND PRIX

88
ZIG- ZIMBABWE ROLLS OUT WORLD NEWEST AND GOLD-BACKED CURRENCY

89
SCIENTISTS DEVELOP CHEAPER, SAFER LITHIUM -ION BATTERIES USING IRON

90
NASA LAUNCHES SATELLITE PREFIRE TO MONITOR AND MITIGATE CLIMATE CHANGE

91
NATO BORDER NATIONS PLAN 'DRONE WALL' AGAINST RUSSIA

92
ADANI PORTS BECOMES FIRST ADANI GROUP COMPANY TO JOIN SENSEX

92

FOUR EUROPEAN UNION BANKS SEEK RBI NOD FOR CLEARING MODEL

94

FIDE UNVEILS BECKNGPT AN AI AGENT COMBINING CHATGPT AND BECKN PROTOCOL

94

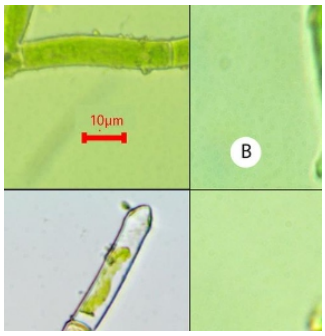
INDIAN ARMY PARTNERS

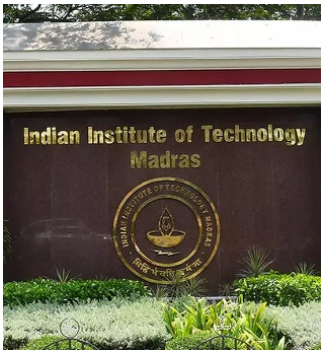
95

INDIA'S $48 BILLION INPUT SUBSIDY FOR POWER AND AGRICULTURE RAISES CONCERNS

96

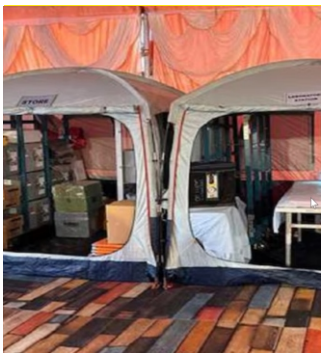
NEW ALGAL SPECIES DISCOVERED IN KERALA'S WESTERN GHATS GHATS BY PHYCOLOGISTS





97

CET AND IIT MADRAS SECURE PATENT FOR NOVEL VOLTAGE DEVICE



98

INDIAN AIR FORCE TESTS BHISHM PORTABLE HOSPITAL IN AGRA

99

TCS LAUNCHES AI CENTER OF EXCELLENCE IN PARIS

TATA CONSULTANCY SERVICES

tcs

100

THREE INDIAN LITERARY WORKS ADDED TO UNESCO'S MEMORY OF THE WORLD REGISTER

101

INDIA PROPOSES DIGITAL COMPETITION BILL, 2024 AGAINST TECH GIANTS

THE DESERVING INDIA

WHAT IS THE SIXTH **SCHEDULE DEMAND OF LADAKH?**

Ladakh should be added to the Sixth Schedule of the Indian Constitution. This demand has gained a lot of support in recent years. Many groups in Ladakh have been pushing for this, especially since the area became a Union Territory in August 2019 when Article 370 was revoked and local government was given more freedom.

What is the Sixth Schedule?

The Sixth Schedule lists parts of the Indian Constitution that allow tribal places in Assam, Meghalaya, Tripura, and Mizoram to be managed in a way that protects their rights. One of these rules is the development of Autonomous District Councils (ADCs), which can make laws about things like land, forests, and agriculture. These councils can also set up village courts to settle small disagreements between tribe.

Why does Ladakh demand Sixth Schedule Inclusion?

Many of the people who live in Ladakh are from different tribe groups. For example, most of the people in Leh are Buddhist, and most of the people in Kargil are Shia Muslims. People who work for activists and community leaders say that adding these tribes to the Sixth Schedule will help protect and support their unique social practices and cultural heritage. Also, they would be able to have their own government, which would give them more power to deal with local problems, similar to what tribal areas in other parts of India have access to.

Potential Impact of Sixth Schedule in Ladakh

It is expected that the Autonomous District Councils would play a key part in local government if Ladakh is added to the Sixth Schedule. This freedom would let policies be made that protect ethnic identities, encourage growth based on local needs, and handle resources in a way that doesn't harm the environment. People in the area would probably also feel less worried about how outside impacts and migration will change their culture and traditions.

MORE ABOUT TRIBAL STATUS

1. Tribal communities are often thought of as primitive, but many of them have complicated social structures and a lot of cultural traditions.
2. The Constitution of India recognizes India's Scheduled Tribes as special groups that need extra help because of their unique social and economic situation.
3. Tribal autonomy in the U.S. lets tribes run their own lands without interference from other groups.
4. The Sentinelese people who live on North Sentinel Island are one of the last groups of people in the world who have not been touched.
5. Because of the land divisions that began in the 1980s, Brazil's constitution honours tribal land rights.
6. The Declaration on the Rights of Indigenous Peoples was made by the UN in 2007 to protect tribal culture and autonomy.
7. Taiwan's native tribes have been there for a long time, but they have only been given official status in the last few decades.
8. The Maasai people in East Africa are known for living a semi-nomadic life, which is largely shaped by land limits set by the government.
9. New Zealand's Treaty of Waitangi, which was made in 1840, is one of the most important documents that recognizes Maori rights.
10. Since 1989, the Sami people in Norway have had their own government to protect their rights to land and culture.

UTTARAKHAND PLANS **AUTHORITY TO REGULATE CHAR DHAM YATRA**

he government of Uttarakhand has realized that the famous Char Dham Yatra needs better management because more and more people are going on it, which is making things more chaotic. There are plans to set up a "Dharmik Yatra Authority" to make sure that these pilgrimages run smoothly. This change is made because of the large number of followers this year, which put a lot of pressure on the current management systems.

What is the Dharmik Yatra Authority?

The "Dharmik Yatra Authority" that is being considered wants to set rules for the Char Dham pilgrimage and other holy trips like the Kanwar yatra. The authority will be in charge of important things like limiting the number of pilgrims who can come each day, planning journey routes, and making sure that health and safety measures are coordinated. This smart move should make procedures more consistent and make sure that events go more smoothly.

Operational Framework and Guidelines

Satpal Maharaj, the tourism minister for Uttarakhand, said that the new body would have to follow certain rules, which will be followed by the relevant departments. The plan also includes looking at and possibly changing Uttar Pradesh's rules for religious meetings to make a system that works in Uttarakhand.

Challenges and Strategic Decisions

This power was made even more important by problems like the fact that district magistrates, who usually watch over yatra processes, are often transferred, which causes problems with administration. People hope that a more organized method with clear rules will help the management process stay on track and be consistent. An upper limit on the number of daily pilgrims is also needed to protect people and prevent events from getting too crowded.

MORE ABOUT CHAR DHAM YATRA

The Char Dham Yatra is an important religious journey in India. It has four places, all of which are in Uttarakhand: Yamunotri, Gangotri, Kedarnath, and Badrinath.

Yamunotri
The goddess Yamuna is honored at Yamunotri.

Gangotri:
Gangotri is the holy placewhere the Ganga River starts.

Kedarnath
One of the 12 jyotirlingas of Lord Shiva is located at Kedarnath.

BADRINATH

Badrinath is a path that is meant to honor Lord Vishnu. These places stand for freedom, purification, and receiving divine benefits. Most people make the journey between April and November because winters are so harsh.

FIVE STATES SHOW INTEREST IN AADHAAR **BASED AUTHENTICATION FOR GST REGISTRATION**

According to an official statement, five Indian states, such as Karnataka, Tamil Nadu, and Telangana, have shown interest in using Aadhaar-based authentication for GST registration. Additionally, Gujarat, Andhra Pradesh, and the Union Territory of Puducherry have started testing Aadhaar identification.

Biometric Authentication for GST Registration

At the third National Coordination Meeting of Central and State GST officers, biometric-based confirmation for GST registration was talked about. The states that are thinking about this system want to figure out how much the infrastructure and staffing needs will cost. They will be given information that will help them make a good proposal that their Cabinets will accept.

Current Authentication Method

Currently, OTP-based Aadhaar authentication is used by GST officials to verify the identities of people who want to register. However, this method has been abused, with people using other people's names to create fake businesses to claim Input Tax Credit (ITC).

Aadhaar-GST Implementation Benefits

Karnataka, along with Uttar Pradesh, Tamil Nadu, and Maharashtra, which brought in the most GST money in April, could especially benefit from this change in the system, which would make tax collection more accurate and protect against scams. Due to strong economic growth and more imports and domestic activities, April GST revenues were higher than the Rs 2 lakh crore mark. This makes the possible benefits of tighter GST registration based on Aadhaar even stronger.

What is GST registration?

Businesses that make more than Rs 20 lakh a year have to register for GST. It is a 15-digit number that the Central Government gives you. IGST is charged on transactions between states, and CGST and SGST are charged on transactions within states. GST helps get rid of the "cascading effect" or tax on tax. Not all things and services are affected by it, but some are. No matter how much they sell, non-residents who sell in India need to register for GST. Businesses that aren't registered can't charge GST to their customers. There are times when cancellation is possible. People who don't follow the rules are punished.

About Aadhaar-based authentication

Aadhaar-based authentication is a process where Aadhaar numbers are used to confirm one's identity. Biometric and demographic information are both needed for the two-step method. Biometric data includes fingerprints, an eye scan, and a picture of your face. Demographic data includes your name, date of birth, gender, and address. The process happens in real-time on a gadget that has been registered. Authentication doesn't give away anyone's personal information or name. The process is easy and doesn't cost much. According to UIDAI, verified data can be kept for 6 months.

NAGALAND GOVERNMENT TO **FORM COMMITTEE TO RESOLVE** LONG STANDING NAGA CONFLICT

The government of Nagaland has announced plans to establish a Political Affairs Committee (PAC) with the overarching aim of finding a fair and inclusive solution to the pervasive Naga political issue. This decision was taken in a meeting chaired by Chief Minister Neiphiu Rio on May 9.

The Role of the PAC

The PAC will include the council of ministers and leaders from all political parties within the 14th Nagaland Legislative Assembly (NLA). As a facilitator, the primary role of the PAC will be to bring about an amicable resolution to the Naga political conflict.

Formation of Political Consultative Committees

The Parliamentary Affairs Minister, KG Kenye, has tasked Legislature Party leaders with forming "Political Consultative Committees" (PCCs). The creation will be conducted in conjunction with their representative party organisations. With renewed effort to continue the spirit of the all-party opposition-less government, the aim is to reach a broad consensus for an early and peaceful settlement to the political deadlock.

The Structure of PCCs

The number of members forming the PCCs will be determined by the size of the party legislators in the NLA. A seven-member committee will be formed for 10 MLAs and above, five-member committee for five MLAs and above, three-member committee for one MLA and above, and a convener and co-convener for Independent MLAs.

Concerns Over Stalemate

The National Socialist Council of Nagaland (NSCN-IM) has expressed concern that should the current talks fail, there could be a return to a severe human rights situation in Nagalim. The Naga people are increasingly pressing for a conclusion to the lengthy Naga political talks. Currently, there is lingering tension between the Government of India and NSCN-IM over the contentious issue of establishing a separate flag and constitution for Nagaland – a demand which the Indian Government has rejected

TAMIL NADU BANS 23 'FEROCIOUS' DOG BREEDS AFTER ATTACK

The Tamil Nadu Animal Husbandry Department recently declared a prohibition on 23 dog breeds deemed 'ferocious', including well-known types like the Rottweiler, Pitbull Terrier and Tosa Inu. This decision was largely motivated by a distressing incident in Chennai where a Rottweiler severely injured a child.

Incident Leading to the Ban

The catalyst for this regulatory action was an event at a park in the Thousand Lights area of Chennai, where a five-year-old girl was attacked by two Rottweiler dogs. The girl, the daughter of a security guard, was playing when the dogs pounced on her, causing serious injuries.

Witnesses and passers-by intervened to rescue the child from the aggressive animals. The incident resulted in the arrest of three individuals, including the owner of the dogs, following a complaint about the owner's negligence.

National Call for the Ban on Ferocious Dogs

Earlier in March, a directive from the central government was sent to all state chief secretaries, urging them to halt the import and sale of 23 types of ferocious dogs. This national call highlighted the need for stringent controls on breeds perceived as dangerous and stressed the importance of proper handling, including the use of leashes and securing necessary licenses from local authorities.

More About Bans on Ferocious Dog Breeds

Several countries and regions implement bans or restrictions on specific dog breeds deemed ferocious or dangerous, often due to their potential for aggression and harm. Breeds such as Pit Bulls, Rottweilers, and Dobermans commonly fall under these regulations. These laws aim to decrease incidents of dog attacks and improve public safety.

Critics argue that such bans are ineffective and unfairly stigmatize certain breeds, suggesting that responsible ownership and behavior-based assessments are better measures for preventing attacks. The effectiveness and ethical implications of these bans continue to be a topic of intense debate.

PACIFIC RING OF FIRE

The Pacific Ring of Fire, also known as the Circum-Pacific Belt, is a path along the Pacific Ocean characterised by active volcanoes and frequent earthquakes. It is a horseshoe-shaped belt about 40,000 km long and up to about 500 km wide.

Geography

The Pacific Ring of Fire stretches from New Zealand, along the eastern edge of Asia, north across the Aleutian Islands of Alaska, and south along the coast of North and South America. It is composed of over 450 volcanoes, including 75 per cent of the world's active and dormant volcanoes.

Plate Tectonics

The Ring of Fire is the result of plate tectonics. The eastern section of the ring is the result of the Nazca Plate and the Cocos Plate being subducted beneath the westward-moving South American Plate. The Cocos Plate is being subducted beneath the Caribbean Plate, in Central America. A portion of the Pacific Plate and the small Juan de Fuca Plate are being subducted beneath the North American Plate.

Volcanoes

- **Mount Fuji in Japan**
- **Mount Pinatubo in the Philippines**
- **Mount St. Helens in the United States**
- **Mount Krakatoa in Indonesia**

Many of these volcanoes are famous for their violent eruptions and the damage they have caused to nearby populations.

Earthquakes

The Ring of Fire is associated with a nearly continuous series of oceanic trenches, volcanic arcs, and volcanic belts and plate movements. It has 90 per cent of the world's earthquakes. The motion of the plates and the resulting subduction zones produce about 90 per cent of all earthquakes worldwide, and 80 per cent of the world's largest earthquakes.

Tsunamis

The Pacific Ring of Fire has experienced some of the most powerful tsunamis in recorded history. One of the most devastating was the 2004 Indian Ocean earthquake and tsunami, which killed over 230,000 people in fourteen countries, and inundated coastal communities with waves up to 30 meters high.

MANIPUR REPORTS

60% DECLINE IN OPIUM POPPY CULTIVATION

Manipur Chief Minister N Biren Singh has announced a significant victory in the state's fight against opium poppy cultivation, with a 60% decrease in the cultivation area over the three-year period from 2021 to 2024, based on a report by the Manipur Remote Sensing Applications Centre (MARSAC).

This achievement is credited to the support of the masses towards the War on Drugs campaign aimed at protecting the youth of the state. Chief Minister Singh took to social media to highlight the success of the campaign, emphasizing the collaborative efforts to combat drug cultivation in Manipur.

The MARSAC report indicates a notable reduction in opium poppy cultivation in districts like Kangpokpi, Churachandpur, and Senapati, formerly known for such activities. The total cultivation area decreased from 28,599 acres in 2021-22 to 16,890 acres in 2022-23. District-specific data from MARSAC shows decreases in opium poppy cultivation across Manipur, including significant drops in Kangpokpi, Churachandpur, and Senapati. Other districts like Chandel, Kamjong, Ukhrul, Tengnoupal, Noney, and Tamenglong also experienced reductions in opium poppy cultivation, indicating widespread impact of the state's anti-drug initiatives.

About opium poppy cultivation

Opium poppy (Papaver somniferum) cultivation refers to the process of growing the flowering plant known as the opium poppy, from which opium is derived from unripe seedpods of the plant. Globally, the cultivation is mostly concentrated in countries like Afghanistan, Myanmar, and Laos. The opium poppy plant has been used for centuries to produce opium, which is the main ingredient in drugs such as heroin. The cultivation of opium poppies is illegal in many countries due to its association with the illegal drug trade and the negative impact it has on communities and individuals.

REASONS BEHIND POPPY CULTIVATION IN MANIPUR

Economic Desperation and Lack of Viable Alternatives

Many farmers in Manipur turn to poppy cultivation primarily due to economic necessity. Manipur, with its remote and rugged terrain, offers limited agricultural and employment opportunities. The high profitability of poppy compared to traditional crops like rice or vegetables appears as a lucrative option for many impoverished families. Despite its illegal status, the robust local and cross-border demand for opium makes poppy cultivation an attractive, albeit risky, endeavour.

Impact of Geographical Proximity and Historical Context

Manipur's proximity to the Golden Triangle—an area well known for its opium production—significantly influences the persistence of poppy cultivation. The easy access to lucrative smuggling routes incentivizes the cultivation of poppy despite the associated legal risks. Historically, the region's involvement in the opium trade and the lack of stringent enforcement mechanisms have allowed this practice to embed itself deeply within some local communities.

Proposed Solutions and Government Efforts

Government of Manipur and associated agencies have attempted to introduce other forms of agriculture, such as cardamom and lemongrass cultivation. Efforts include combining these initiatives with economic incentives, technical training, and market access. However, for any alternative to be viable, it must compete with the income levels that poppy cultivation can offer.

WORLD MIGRATION REPORT 2024

The World Migration Report 2024, released by the International Organization for Migration (IOM) underscores that while migration remains an integral part of the solution for many economies, societies, and families worldwide, significant challenges persist in the rapidly changing global context.

Migration and Displacement Shaped by Intensifying Global Transformations.

The report highlights how the impacts of geopolitical, environmental, and technological transformations have intensified in the last two years. Hardening geopolitics, evidenced by conflicts such as the Russian invasion of Ukraine and the conflict in Gaza, have led to profound consequences for global migration and displacement.

Ecologically negative human activities continue to exacerbate climate change, with potentially severe implications for human mobility. Advances in artificial intelligence are also reshaping various aspects of life, including migration systems, risking the exacerbation of digital divides between and within countries.

KEY MIGRATION DATA AT A GLANCE

The report provides an overview of key migration statistics:

- 281 million international migrants globally in 2020 (3.6% of the world's population)
- 169 million migrant workers globally in 2019
- Around 8,500 migrants reported dead or missing globally in 2023
- USD 831 billion in international remittances globally in 2022
- 117 million people living in displacement globally at the end of 2022

MIGRATION AS PART OF THE SOLUTION, DESPITE CHALLENGES

Despite the politicization of migration narratives in some parts of the world, the report emphasizes that migration has long served millions of people well, providing opportunities and enriching lives. Most international migration remains safe, orderly, and regular, and acts as a driver of human development, generating significant benefits for migrants, their families, and countries of origin. However, humanitarian crises due to displacement remain a major challenge, with forced displacement at its highest on record in the modern era, further exacerbated by environmental impacts and climate change.

MIGRATION AND CLIMATE CHANGE

The report highlights that climate change is expected to force 216 million people across six continents to move within their countries by 2050. While climate change is not the sole driver of migration, it exacerbates existing pressures on communities and systems, leading to increased displacement.

NO CONTINENT LEFT UNAFFECTED

The report profiles both the Global South and the Global North, demonstrating that no region of the planet is immune to the impacts of climate change and the consequent migration of people. In North Africa, significant warming and decreased rainfall have led to displacements triggered by droughts and wildfires in countries like Libya, Algeria, and Morocco. The Sahel region has experienced a 20% decrease in rainfall since the 1970s, making it prone to droughts, while parts of West and Central Africa have seen millions displaced due to sudden-onset disasters.

In East and Southern Africa, climate change-linked disasters such as droughts and cyclones have become more frequent and intense. Cyclone Freddy alone displaced over 500,000 people in Malawi in early 2023.

ASIA, THE AMERICAS, CARIBBEAN, AND OCEANIA FACE CHALLENGES

In Asia, the Indian subcontinent has witnessed significant climate-related displacement, with the 2022 floods in Pakistan resulting in nearly 1,700 deaths and more than 8 million displacements. Bangladesh, a low-lying country, records thousands of displacements every year due to disasters. Central Asia faces issues such as increasing desertification, glacial melt, and dam failures, leading to floods and displacement.

The Americas, Caribbean, and Oceania also face daunting challenges. South American countries like Ecuador and Peru are seeing environmental factors enhance both internal and international migration. The Caribbean islands are some of the most at-risk from the impacts of climate change, with hurricanes causing significant displacements.
Even the Global North is not unaffected, with Canada and the United States experiencing wildfires and hurricanes that have led to hundreds of thousands of displacements.

INDIA IN THE REPORT

India plays a significant role in global migration patterns. The report notes the strong influence of climate impacts on internal migration from Rajasthan, Uttar Pradesh, and Madhya Pradesh within India.

Moreover, India is home to the world's largest number of international migrants, with 18 million Indians residing in countries such as the United Arab Emirates, the United States, and Saudi Arabia. In 2022, India maintained its position as the top remittance destination, receiving over USD 111 billion, making it the first country to surpass the USD 100 billion threshold.

ABOUT INTERNATIONAL ORGANIZATION FOR MIGRATION

The International Organization for Migration has undergone several transformations since its establishment in 1951 as the Provisional Intergovernmental Committee for the Movement of Migrants from Europe (PICMME) in the aftermath of World War II.
The organization's name changed several times, reflecting its development into a global migration agency. In 2016, IOM entered into an agreement with the United Nations, becoming a related organization. Currently, IOM has 175 Member States and 8 states with Observer status, with India joining as a Member State on June 18, 2008. The organization's headquarters is located in Geneva, Switzerland.

WHAT IS CLIMATISATION OF FORESTS?

Recently, during the 19th Session of the United Nations Forum on Forests (UNFF19) in New York, a significant report titled "International Forest Governance: A Critical Review of Trends, Drawbacks, and New Approaches" was released. Authored by the Science-Policy Programme (SciPol) of the International Union of Forest Research Organizations (IUFRO), it marks the first global synthesis on international forest governance in 14 years. The report exposes the rising trend of 'climatisation' of forests.

WHAT IS CLIMATISATION OF FORESTS?

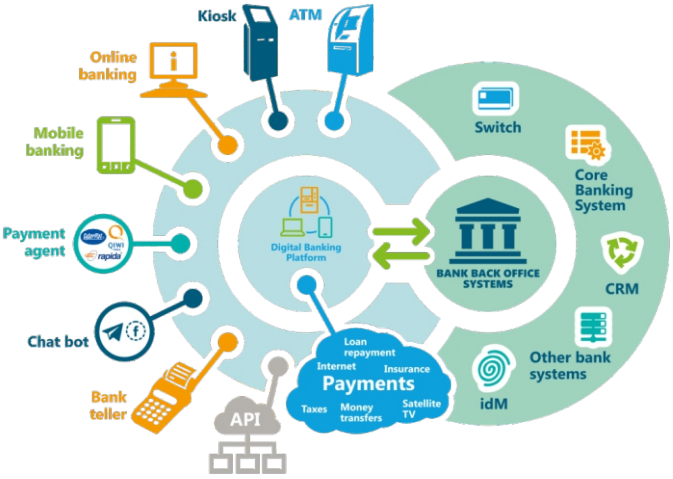
Climatisation of forests refers to the trend where the emphasis has shifted primarily towards their valuation as carbon sinks, overshadowing their crucial ecological and social roles. This shift largely stems from increasing political and financial orientations aimed at carbon sequestration to combat climate issues, frequently sidelining long-term sustainability and socio-ecological justice.

Risks and Impacts

Despite some progress in reducing deforestation, particularly in tropical regions, the report has highlighted the ongoing crises such as climate change, biodiversity loss, and growing socio-economic inequalities. The commodification of forests for carbon captures not only risks perpetuating these inequalities but also potentially diminishes effective forest management practices.

MARKET-BASED VERSUS NON-MARKET APPROACHES

Professor Constance McDermott, one of the lead authors and head of the Land, Society, and Governance programme at the ECI, highlights significant traction in market-based solutions like forest carbon trading and zero-deforestation supply chains. However, the report indicates that these approaches may exacerbate inequities and lead to unintended negative impacts on sustainable forest management. As an alternative, non-market mechanisms, including state regulation and community-led initiatives, are suggested to offer more just and effective pathways for forest governance.



MORE ABOUT CARBON SEQUESTRATION

Carbon sequestration refers to the process of capturing and storing atmospheric carbon dioxide (Co2), one of the primary greenhouse gases contributing to climate change. This process aims to reduce the impact of carbon emissions on global warming.

Carbon sequestration can occur naturally in forests, oceans, and soil, which absorb CO2 through biological processes. Additionally, it can be engineered through technologies such as carbon capture and storage (CCS), where CO2 is removed from industrial and energy-related emissions at the source and stored underground in geological formations, preventing its release into the atmosphere.

MORE ABOUT FOREST CARBON TRADING

Forest Carbon Trading refers to the economic mechanism aimed at reducing carbon emissions by valuing the carbon stored in forests. It builds on the concept that forests act as carbon sinks, absorbing CO2 from the atmosphere. Through this system, companies or nations can offset their emissions by investing in forest conservation projects, effectively trading carbon credits.

Each credit represents a ton of CO2 either absorbed or not emitted. This market-driven approach incentivizes forest protection and sustainable management, thereby contributing to global climate change mitigation efforts and supporting biodiversity conservation and local communities.

MORE ABOUT ZERO DEFORESTATION SUPPLY CHAINS

Zero deforestation supply chains refer to the commitment by companies to eliminate deforestation from their supply chains. This involves sourcing raw materials in a manner that does not contribute to the cutting down of forests. Key commodities often targeted include palm oil, soy, beef, and timber, which are linked to significant forest loss globally.

Organizations adopting these policies work to trace and verify the origins of their commodities, enforce sustainable practices among suppliers, and often collaborate with environmental groups to achieve transparency and accountability. The goal is to promote biodiversity conservation and reduce carbon emissions while maintaining supply demands.

WHAT ARE AI DEADBOTS?

A rising trend within artificial intelligence involves the creation of 'deadbots' or 'griefbots', which are chatbots designed to emulate deceased individuals. "Deadbots" refers to a concept in artificial intelligence and robotics where chatbots or robotic entities continue to function or are reactivated after the discontinuation or death of their human counterparts. These technologies can be programmed to replicate a person's speech patterns, social media behavior, or even broader personality traits based on data collected during the individual's lifetime.

Deadbots raise various ethical, privacy, and psychological concerns, revolving around the implications of digital afterlife, user consent, and the impact on grieving processes. The development of deadbots pushes debates on the limits of how technology should replicate human life

RECENT CONTEXT

With technological advancements, these services have gained popularity, particularly in countries like the USA and China. Notably, in 2017, Microsoft patented a form of this technology, signalling a significant growth in the **'digital afterlife industry'.** This sector operates under the premise of providing comfort to grieving individuals by allowing them to interact with digital representations of their lost loved ones.

POTENTIAL PSYCHOLOGICAL IMPACTS

Researchers have expressed concerns about the psychological effects these technologies could have on users. Interaction with deadbots could lead to confusion or distress, particularly if the AI does not behave as expected or exploits the user's emotional state. The interaction could also impact grieving processes, especially in children who may not fully understand the context of their interactions with the deceased.

GROWING NEED FOR REGULATION

Experts argue that the development and use of such technologies require careful consideration and regulation. As pointed out by research from the University of Cambridge, the scenarios involving over-commercialisation and inappropriate interactions demand the establishment of strict safety and ethical guidelines. The primary goal should be to protect users from potential psychological harm and to prevent misuse of their personal data.

CULTURAL CONSIDERATIONS

The acceptance and impact of deadbots vary significantly across different cultural backgrounds. Ongoing research aims to explore these differences, particularly in Eastern societies, to better understand the global implications of digital immortality technologies.

KERALA TEMPLES BAN OLEANDER AFTER WOMAN'S DEATH

Following the tragic death of a 24-year-old woman, Surya Surendran, who accidentally consumed oleander leaves, two major religious temple boards in Kerala have imposed a ban on the use of oleander flowers in temple offerings.

The incident occurred when the victim, unknowingly chewed oleander (locally known as Arali in Kerala) leaves, leading to severe poisoning and her subsequent death. This prompt action by the Travancore Devaswom Board and the Malabar Devaswom Board aims to prevent future incidents by restricting the flower's use in religious offerings and prasad.

OLEANDER PLANT AND ITS RISKS

Nerium oleander, commonly known as oleander, is a highly toxic plant despite its widespread cultivation for ornamental purposes. All parts of the plant, including leaves, stems, flowers, and roots, contain potent cardiac glycosides that can cause severe poisoning.

Symptoms of oleander toxicity include nausea, vomiting, abdominal pain, diarrhoea, irregular heart rate, and even death in severe cases. Oleander poisoning can occur through ingestion, inhalation of smoke from burning the plant, or contact with skin. Despite its danger, oleander remains popular in landscapes for its attractive flowers and drought resistance.

The recent death highlights the plant's lethal potential, leading to need for increased public awareness and regulatory responses.

OLEANDER IN TRADITIONAL MEDICINE AND ITS DUAL NATURE

As per Ayurvedic Pharmacopoeia of India, the parts of the oleander plant have been used in Ayurveda for treating various skin conditions and as a component in several other remedies. Historical texts describe its application in treating stubborn skin diseases and other ailments. However, medical experts strongly caution against its unchecked use due to the narrow therapeutic window and high toxicity.

SAFETY MEASURES FOLLOWING OLEANDER POISONING

Immediate actions following the ingestion of any part of the oleander plant are crucial. It is advised to rinse the mouth to remove any plant residue and to consume ample fluids to aid in detoxification.

Hospital admission is often necessary to manage the symptoms, which can persist for several days. Timely medical intervention can generally lead to recovery, although severe cases can be fatal.

ISRO SUCCESSFULLY

TESTS 3D-PRINTED ROCKET ENGINE

The Indian Space Research Organisation (ISRO) has achieved a remarkable feat by successfully conducting a hot test of a 3D-printed liquid rocket engine on May 10, 2024. This test represents a crucial step forward in integrating Additive Manufacturing (AM) technologies into India's space exploration program.

THE 3D-PRINTED ROCKET ENGINE

The engine tested, known as the PS4 engine, is primarily used in the fourth stage of the Polar Satellite Launch Vehicle (PSLV) and the Reaction Control System (RCS) of the first stage (Ps1). It is developed by ISRO's Liquid Propulsion Systems Centre (LPSC) and uses a combination of Nitrogen Tetroxide and Mono Methyl Hydrazine as propellants in a pressure-fed system.

ADVANTAGES OF ADDITIVE MANUFACTURING

Additive Manufacturing, or 3D printing, offers numerous benefits over traditional manufacturing methods. To optimize for AM, the engine was redesigned based on the Design for Additive Manufacturing (DfAM) principles. This redesign helped reduce the number of parts from 14 to just one and eliminated 19 weld joints. The production employed a Laser Powder Bed Fusion technique, which decreased material usage drastically from 565 kg to just 13.7 kg of metal powder, and also cut down production time by 60%.

PARTNERSHIP AND TESTING PHASES

The engine was manufactured in collaboration with WIPRO 3D, an industry partner, and tested at ISRO's Propulsion Complex in Mahendragiri. Prior to the successful 665-second test, the engine underwent a series of developmental tests and simulations that included earlier hot tests of the injector head, detailed flow and thermal modeling, and structural simulations, accumulating a total of 74 seconds of testing to ascertain performance parameters.

IMPACT AND FORWARD LOOK

With the successful completion of the hot test lasting a full qualification duration, ISRO has demonstrated the feasibility and efficiency of incorporating AM technology into the production of rocket engines for its PSLV program.

The performance parameters observed during the test were in line with expectations, paving the way for regular integration of this technology. This development not only enhances the capabilities of ISRO's launching vehicles but also positions India as a leader in the adoption of advanced manufacturing technologies in the aerospace sector.

About ISRO

ISRO (Indian Space Research Organization) is India's national space agency established in 1969. Headquartered in Bengaluru, ISRO operates under the Department of Space and is tasked with advancing space technology and its applications for national development.

Known for cost-effective and reliable space missions, ISRO has achieved significant milestones including the Chandrayaan missions to the Moon, the Mars Orbiter Mission (Mangalyaan), and the development of the Polar Satellite Launch Vehicle (PSLV) and Geosynchronous Satellite Launch Vehicle (GSLV). Its achievements contribute to global admiration, enhancing India's capability in earth observation, communication, and educational sectors.

About Additive Manufacturing (AM)

Additive Manufacturing (AM) refers to the construction of objects by adding material layer by layer, often using plastic or metal. Unlike traditional subtractive methods (e.g. machining), AM, also known as 3D printing, allows for complex geometries and bespoke designs with less waste.

Common techniques include Fused Deposition Modeling (FDM), where a filament is extruded through a nozzle, and Selective Laser Sintering (SLS), which uses a laser to fuse powdered material. Applications range from prototyping and small batch production to the creation of specialized medical implants and aerospace components.

About Polar Satellite Launch Vehicle (PSLV)

Polar Satellite Launch Vehicle (PSLV) is an indigenously developed expendable launch system by the Indian Space Research Organisation (ISRO). Featuring a four-stage system, PSLV became operational in 1994 and is renowned for its reliability and versatility, having launched numerous satellites for various countries into polar orbits. Predominantly used for deploying satellites into the Sun-synchronous orbits, it has played a crucial role in India's space missions including Chandrayaan-1 and Mars Orbiter Mission.

UN GENERAL ASSEMBLY SUPPORTS PALESTINIAN UN MEMBERSHIP BID

On May 10, 2024, the United Nations General Assembly voted in favour of a resolution supporting Palestine's bid for full membership in the UN. The resolution was passed with 143 votes in support, nine against, and 25 abstentions.

Previously key UN Security Council members, notably the United States and Israel had opposed the same. India voted in favour of Palestine.

DETAILS OF THE UNGA VOTING

The General Assembly's resolution does not instantly grant Palestine full UN membership but qualifies them as eligible for accession. This move comes after a U.S. veto in the Security Council that blocked Palestine's immediate membership. The resolution was framed as a request to the Security Council to "reconsider the matter favourably," indicating a push for a reevaluation.

PALESTINIAN ADVOCACY AND OPPOSITION REMARKS

During the proceedings, Palestinian UN Ambassador Riyad Mansour articulated a message of peace and freedom, stressing that supporting the resolution was a vote for Palestinian existence and not against any other state. In stark contrast, Israeli UN Ambassador Gilad Erdan accused the General Assembly of violating the UN Charter, symbolically shredding a copy during his speech, reflecting deep-seated geopolitical tensions.

IMPLICATIONS OF THE RESOLUTION

The resolution enables Palestine to enjoy additional rights and privileges from September 2024, including occupying a seat among UN member states in the assembly hall, albeit without a voting right. Currently, Palestine holds the status of a non-member observer state, a position that recognises their statehood to some extent, a status granted back in 2012.

US RESPONSE AND LEGISLATIVE ACTIONS

Following the vote, the Palestinian mission expressed that the resolution was crucial for supporting the two-state solution at a critical moment. However, the U.S. maintained that the path to statehood should be through direct negotiations. Additionally, any UN organization granting full membership to Palestine risks U.S. funding cuts under American law, a policy underlined by a new bill introduced by U.S. Republican senators aiming to tighten these financial restrictions.

BROADER UN VISION AND ONGOING CONFLICTS

United States has historically advocated for two states, Israel and Palestine, to coexist peacefully within secure and recognized borders. This vision aligns with the territories outlined in the 1967 war. The ongoing conflict, including recent escalations with Hamas, poses significant challenges to achieving these aims, highlighting the complex and volatile nature of the path towards peace and recognition in the region.

AFGHANISTAN
FLASH FLOODS CAUSE SEVERE DAMAGE

Recently, Afghanistan was hit by severe flash floods following torrential rains, resulting in a tragic loss of life and extensive property damage. The most affected area was the northern province of Baghlan, where it was reported that more than 150 individuals lost their lives in a single day, with pervasive destruction across the province.

SCALE OF IMPACT AND GOVERNMENT RESPONSE

The severity of the floods led to over 300 deaths in Baghlan as reported by the World Food Programme (WFP), with substantial injuries and destruction throughout the northern regions including Badakhshan, Ghor, and Herat provinces.

The Afghan Government, led by the Taliban's Ministry of Interior Affairs, alongside various spokespeople, confirmed the high casualties and significant loss of property. Emergency was declared and Emergency measures, including food and medical aid distributions and evacuations, were organized by the Ministry of National Defense.

RESPONSE BY INTERNATIONAL BODIES AND AID DISTRIBUTION

In response to the crisis, international organizations such as the WFP and the International Organization for Migration (IOM) have been active on the ground. The WFP distributed emergency food supplies, while the IOM provided disaster assessments, reporting extensive damage with thousands of homes destroyed or damaged, especially in the Baghlani Jadid district.

CHALLENGES IN RELIEF EFFORTS

Continuous light rains and the damaged infrastructure have complicated rescue and relief efforts. Emergency personnel, supported by the national army and police, have been actively searching for survivors and recovering bodies. The head of Baghlan's natural disaster management department warned that the death toll might rise as ongoing rains could lead to further flooding.

ABOUT BAGHLAN PROVINCE

Baghlan Province is located in northern Afghanistan. It's significant both strategically and economically, primarily due to its position as a key transport route connecting various parts of Afghanistan and for its agricultural potential. Baghlan is known for its abundant natural resources, particularly coal and natural gas, alongside a variety of agricultural products like sugar beets, rice, and almonds. Historically, it has been a region influenced by Persian empires and later Islamic dynasties. It has also seen considerable conflict in recent decades, involving Soviet forces, the Taliban, and Afghan national forces.

ICMR WARNS

PACKAGED FOOD LABELS MAY MISLEAD CONSUMERS

The Indian Council of Medical Research (ICMR), through its Hyderabad-based National Institute of Nutrition (NIN) has recently highlighted potential misleading claims on packaged food labels. The ICMR's dietary guidelines issued in May 2024 warn consumers that labels designed to attract attention may not accurately reflect the healthiness of the products.

The guidelines point out specific examples where food labelling can be deceptive as follows:

SUGAR-FREE PRODUCTS: Often perceived as healthy, these products might be high in fats, hidden sugars like maltitol and fructose, and refined cereals, potentially leading to high caloric intake.

PACKED FRUIT JUICES: Labels such as 'real fruit or fruit juice' can be misleading when the product contains as little as 10% actual fruit pulp, with the remainder being water, sugar, and other additives.

Whole Grain Misrepresentation: A 'made with whole grain' label does not necessarily mean the product isn't heavily processed or that whole grains are the primary ingredient.

ORGANIC LABELS: For a product to be labelled as 100% organic, it must be free from artificial preservatives, flavours, colours, pesticides, and chemical fertilizers. This label is substantiated by the 'Jaivik Bharat' logo approved by the Food Safety and Standard Authority of India (FSSAI).

LABEL READING AND NUTRITIONAL CLAIMS

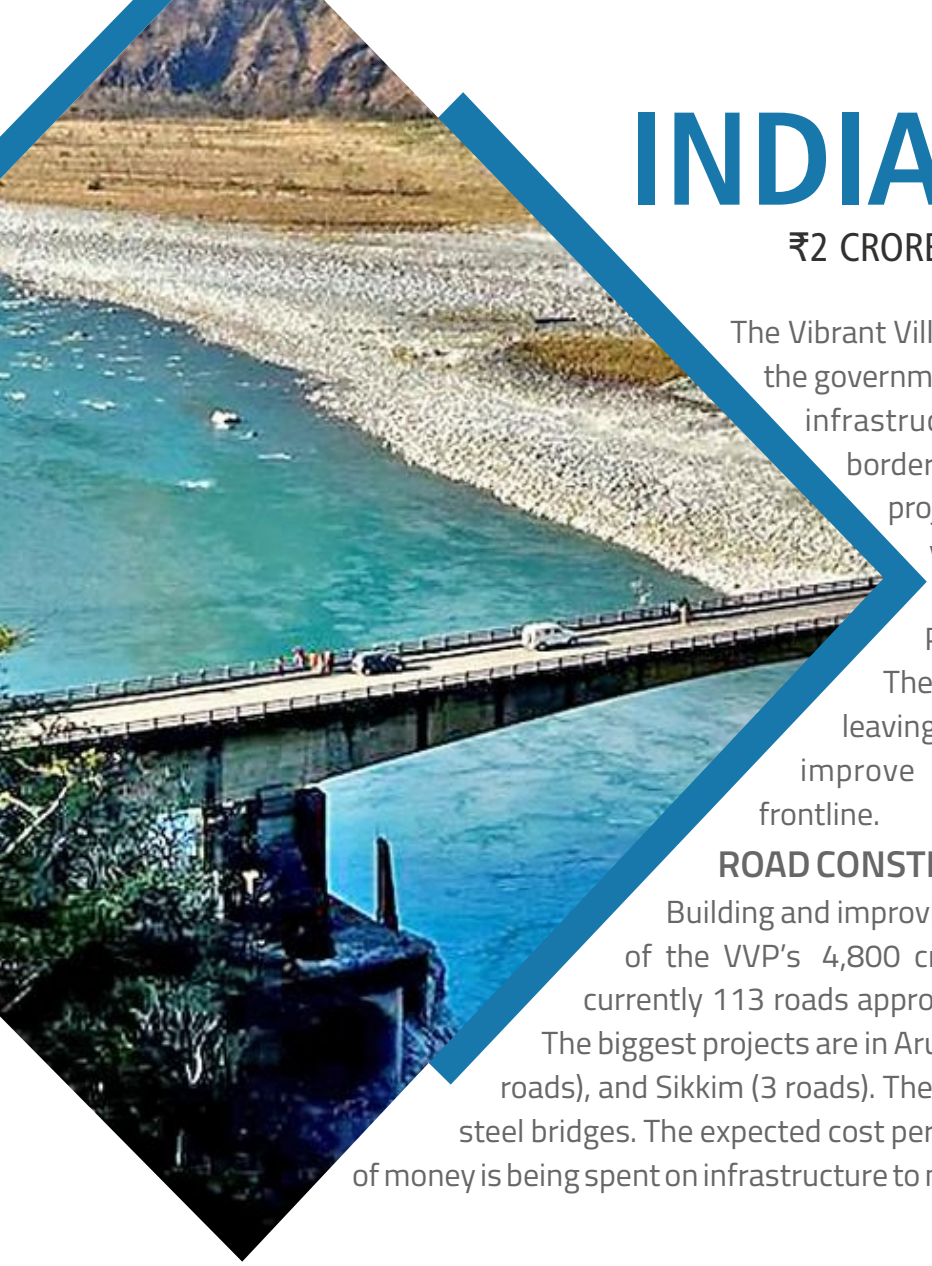
The guidelines urge consumers to meticulously read labels, focusing on:

Ingredients List: To verify the actual content against claims.

Nutrition Information: Checking serving sizes and nutritional facts such as calories, fats, sugars, and other nutrients based on the serving size mentioned.

Certifications and Logos: Understanding what each certification or logo (like 'Jaivik Bharat') actually represents.

Expiry Dates: Noting manufacture and use-by dates to ensure product freshness and safety.



INDIA TO SPEND

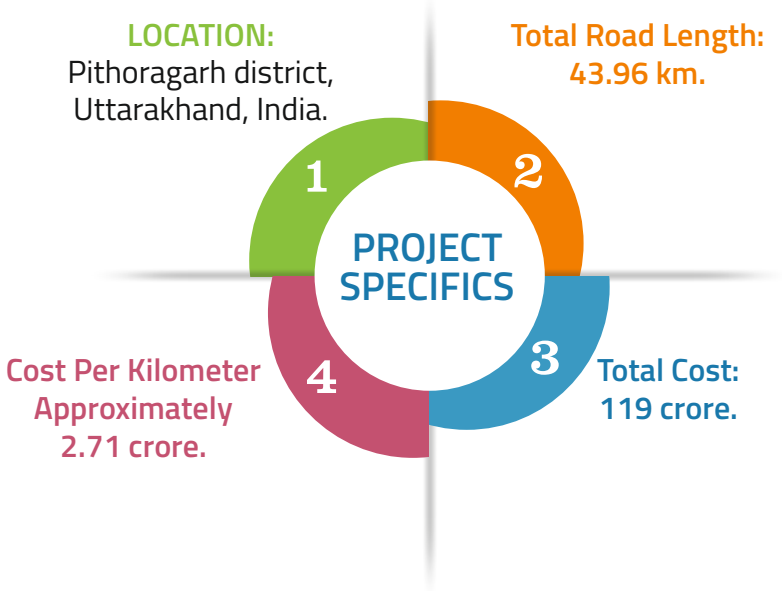
₹2 CRORE PER KM ON CHINA BORDER ROADS

The Vibrant Village Program (VVP), which was approved by the government on February 15, 2023, wants to improve infrastructure and settlement stability along the border between India and China. The goal of this project is to improve the lives of people in 2,967 villages spread out over 46 border blocks in 19 districts in Arunachal Pradesh, Himachal Pradesh, Sikkim, Uttarakhand, and Ladakh. The main goal of the VVP is to keep people from leaving border towns, raise living standards, and improve border security by keeping a populated frontline.

ROAD CONSTRUCTION UNDER VVP

Building and improving road connections will take up a big chunk of the VVP's 4,800 crore spending over three years. There are currently 113 roads approved by the Ministry of Home Affairs (MHA). The biggest projects are in Arunachal Pradesh (105 roads), Uttarakhand (5 roads), and Sikkim (3 roads). The building project includes building roads and steel bridges. The expected cost per kilometre is 2 crore, which shows that a lot of money is being spent on infrastructure to make sure strong connectivity.

UTTARAKHAND PITHORAGARH PROJECT



STRATEGIC CONSIDERATIONS

India is building more infrastructure under the VVP as part of a larger strategic reaction to China building "moderately prosperous" Xiaokang villages along the Line of Actual Control (LAC), especially in areas that face Uttarakhand, Sikkim, and Arunachal Pradesh. India wants to strengthen its border areas by making it easier for people to make a living and by making it easier to keep an eye on things and control the border.

2024 WORLD WILDLIFE CRIME REPORT

The 2024 World Wildlife Crime Report was released by the United Nations Office on Drugs and Crime on May 13, 2024. This report provides insights into the illegal wildlife trade that occurred between 2015 and 2021.

KEY FINDINGS: ANIMAL SPECIES

Rhino Horn Market: Largest at 29%
Pangolin Scales Market: Second largest at 28%
Elephant Ivory Market: Third largest at 15%
Additional affected species include eels, crocodilians, parrots, cockatoos, carnivores, turtles, tortoises, snakes, seahorses, and other animals constituting various smaller percentages.

KEY FINDINGS: PLANT SPECIES

Cedars and other Sapindales were the most affected plant species:
Cedars and Sapindales Market: Largest at 47%
Rosewoods Market: Second largest at 35%
Agarwood and other Myrtales Market: Third largest at 13%
Other affected plant species include golden chicken fern, orchids, and several others.

SEIZURES OF BIODIVERSITY PRODUCTS

Cedars and other Sapindales were the most affected plant species:
Cedars and Sapindales Market: Largest at 47%
Rosewoods Market: Second largest at 35%
Agarwood and other Myrtales Market: Third largest at 13%
Other affected plant species include golden chicken fern, orchids, and several others.

COMMODITY SEIZURES

Coral Pieces: 16% of all seizures
Live Specimens: 15%
Animal Product Medicines: 10%
Other commodities included animal meat, shells, small leather products, and various others constituting smaller percentages.

Report Insights

The third edition of the report continues to analyse trends, harms, and the impact of wildlife crime. It highlights the persistence of wildlife trafficking despite global action and notes the adaptability of traffickers.

KENYA FACES

CHOLERA OUTBREAK AMID HEAVY RAINS AND FLOODING

Kenya has had a serious cholera outbreak recently. This is because of the long rains, which destroyed sanitation facilities and contaminated water sources. The Ministry of Health and the World Health Organization (WHO) have both reported cases and told the people what they should do to stay safe.

CAUSE AND IMPACT OF THE OUTBREAK

Flooding and heavy rains have made hygiene very bad because they polluted water sources with feces and filled latrines with floodwater. Because of this, cholera has spread to Tana River County, and people in Marsabit County may have contracted diarrheal illnesses. The WHO has warned that there is a high chance that more water- and food-borne diseases will spread across the country.

PUBLIC HEALTH ADVISORY

As a result of the spread, the Kenyan State Department of Public Health and Professional Standards has given people advice on how to stop it from happening. These include washing your hands properly, not drinking water that has been tainted, making sure food is safe, and getting rid of waste safely.

CHILDREN'S HEALTH AND EDUCATION

Not only have the rains spread disease, but they have also made it hard to go to school. Over 62 primary schools have been damaged, putting thousands of kids at risk of water-related illnesses, dropping out of school, working as children, and other social problems while they wait for school to start up again.

ABOUT CHOLERA OUTBREAK

A cholera outbreak happens when there is a quick rise in the number of people who are sick with cholera, which is caused by drinking or eating food or water that is contaminated with bacteria. Cholera causes severe diarrhea that is full of water. If this is not handled, the person can become dehydrated and die. The bacteria Vibrio cholerae are the main cause of it. Outbreaks often happen in places that don't have good cleanliness, too many people living in close quarters or clean water. Giving people access to clean water, better cleanliness, and oral cholera vaccines are all effective ways to stop cholera. Oral rehydration treatments and, in the worst cases, antibiotics are used to treat it.

GOOGLE LAUNCHES
AI-POWERED SCAM PROTECTION AT I/O 2024

At the Google I/O 2024 developer conference, Google showed off a new and useful tool that will help protect Android users from phone scams. This feature, which is powered by AI, is meant to make things safer by finding and warning users of possible scams over the phone.

GEMINI NANO: ENHANCING CALL SECURITY

Gemini Nano is the core of this new feature. It is a small version of Google's advanced language model that was made just for Android devices. Gemini Nano works offline and listens to call conversations in real-time, looking for trends and words that are often used in scam conversations. When it finds possible scams, it warns users right away, giving them time to end dangerous calls.

PRIVACY CONSIDERATIONS

On-device processing is one of the most important parts of Gemini Nano. This means that all data analysis happens on the user's phone. Not only does this method speed up the detection process, but it also protects the privacy of user conversations by not sending any private information to outside sources.

RELEASE AND ACCESSIBILITY

Google has not yet specified a release date for this scam detection tool. The first tests of the technology have shown that it works, especially when fake bank employees are involved. At the moment, Gemini Nano works with high-end phones like the Google Pixel 8 Pro and the Samsung S24 series. In the future, it will be able to work with more phones.

CONTEXT AND SIGNIFICANCE

This project by Google is in response to the growing worry around the world about scam calls, which have cost people a lot of money. With the addition of AI to call security, Google is taking a big step to protect users from the advanced tricks scammers use. As AI technology develops, more progress is likely to be made in this area, which could affect more gadgets and Google services.

MORE ABOUT AI-DRIVEN SCAM CALL DETECTION

AI-driven scam call detection uses machine learning algorithms to look at things like caller metadata, speech patterns, and calling habits to tell the difference between real calls and possible scams. A lot of the time, these systems use voice-print technology to find people who are known to be scammers and natural language processing (NLP) to find scammers' misleading language. Because these systems make decisions in real-time, they can stop or warn users about dangerous calls right away. Telecommunication companies build this technology right into their networks, which protects customers better without the users having to do anything. Anonymizing caller data during analysis takes care of privacy issues.

CHINA,PAKISTAN

DISCUSS CELERATING CPEC PROJECTS AND INFRASTRUCTURE

China and Pakistan recently talked about their long-term plans for growth. These plans include changing the route of the Karakoram Highway and making other important CPEC projects better. In these talks, Liu Jianchao of the Communist Party of China met with Mohammad Ishaq Dar, who is the Deputy Prime Minister of Pakistan.

THE OBJECTIVE OF THE TALKS

The main goal of these talks was to speed up the progress of CPEC projects, which are very important for making the two countries' economies stronger. Some of the most important projects that were talked about were improving the train line between Karachi and Peshawar and making changes to Gwadar Port, which is run by a Chinese company.

STRATEGIC PROJECTS UNDER DISCUSSION

Karakoram Highway Realignment:
The talk led to the strategic change of the Karakoram Highway, which connects China's Xinjiang to Pakistan's Gwadar Port. This is thought to be very important for the CPEC to work.

Upgrading the ML-I Railway Project:
A big part of CPEC is the USD 8 billion ML-I railway line, which connects Karachi to Peshawar and is very important for trade and movement within Pakistan.

Developing Gwadar Port:
Another big goal was to improve the facilities at Gwadar Port, which is important for marine trade and a key part of CPEC.

GEO-POLITICAL IMPLICATIONS

India's resistance to the CPEC projects because they would go through Kashmir, which is occupied by Pakistan, was seen as a geopolitical problem. Still, both China and Pakistan said again how important the CPEC was and promised to get past these problems through strategic planning and teamwork.

More About China-Pakistan Economic Corridor (CPEC)

The China-Pakistan Economic Corridor (CPEC), which includes projects from Gwadar Port in Pakistan's Balochistan to Xinjiang in China, was first worth $46 billion but is now worth more than $62 billion. Improvements are being made to the Karakoram Highway, which is the fastest straight route between China and Pakistan. CPEC is more than just building roads and bridges. It also includes energy projects that aim to add 17,000 MW to Pakistan's power. Even though CPEC has advantages, it is criticized for putting Pakistan in debt and causing problems with the environment. The corridor also avoids key maritime choke points, which makes China's trade safer.

CATERPILLARS

SENSE ELECTRIC FIELDS TO DETECT PREDATORS

British scientists have found something very interesting about caterpillars: they have a sixth sense that most land animals don't have. Through special hairs on their bodies called setae, they can pick up on electric fields with this sense, called electroreception. The study, which was published in the Proceedings of the National Academy of Sciences, looked at four types of caterpillars: the cinnabar moth, the rare vapourer moth, the European peacock butterfly, and the common wasp.

WHAT IS ELECTRORECEPTION?

Animals that live in water or on land often have electroreception, which helps them avoid being eaten or protected. Recently, research before 2013 uncovered that certain arthropods, including bumblebees, hoverflies, and spiders, also demonstrated this capability. However, unlike the caterpillars that were studied, these land-based arthropods do not use electroreception as a defense against predators

RESEARCH FINDINGS AND METHODOLOGY

Researchers did a study where they used a live electrode with a fluctuating voltage of 180 Hz to simulate how a wasp would approach a prey animal. Caterpillars' reactions included flailing and coiling, which are signs of stress that were not seen when they were in settings that were not electrified. The results showed that the setae on caterpillars reacted most strongly to frequencies around 220.3 Hz. This is very close to the frequencies of many predatory insects' wings, which suggests that the caterpillars may have evolved to protect themselves.

SIGNIFICANCE OF THE RESEARCH

This find not only helps us understand how caterpillars' senses have changed over time, but it also helps us learn more about how insects behave and adapt. A key expert, says that this change in the senses probably happened because of strong pressure from predators. Additionally, the study shows that even though caterpillars use electroreception as an extra sense in addition to their other senses, things like sensory pollution from man-made sources might make it harder for them to find predators.

IRAN BOOSTS NEAR WEAPONS

GRADE URANIUM STOCKPILE, UN REPORT

The International Atomic Energy Agency (IAEA), which is in charge of keeping an eye on nuclear issues for the UN, recently released a secret report that said Iran has greatly increased the amount of uranium it enriches. The most recent information shows that Iran has 142.1 kilograms of uranium refined to 60% purity. This is 20.6 kilograms more than it had in February. This amount of enrichment is a very important step toward getting weapons-grade material, which is 90% pure.

OVERVIEW OF URANIUM STOCKPILE

The IAEA report shows that Iran's general uranium stockpile has grown by a large amount. Iran now has 6201.3 kilograms of enriched uranium, which is 675.8 kilos more than the last report showed. Even though Iran says it is working on a peaceful nuclear program, the increased amount and purity of enriched uranium raises worries about its nuclear plans.

CURRENT NEGOTIATIONS AND INSPECTIONS

Iran would not let some of the IAEA's most experienced nuclear inspectors into its sites after a decision was made in September 2023. Recent messages, on the other hand, show that talks are still going on, with Tehran suggesting that they continue on a mutually agreed upon date in Tehran. The IAEA is still hoping that this ban will be changed during the current talks.

IAEA's Concerns and Warnings

The head of the IAEA has said again that he is worried about Iran's quickly growing ability to enrich uranium. It says that Iran might be able to make "several" nuclear bombs if it decides to go in this way with its current stockpile and level of enrichment. As the whole world keeps a close eye on things, the situation remains very bad.

MORE ABOUT INTERNATIONAL ATOMIC ENERGY AGENCY

- The international atomic energy agency (iaea), founded in 1957 and based in vienna, works to stop nuclear energy from being used for military reasons and promote its peaceful uses.
- It is separate from the UN but reports to both the General Assembly and the Security Council.

PHILIPPINES' LOWER HOUSE PASSES DIVORCE BILL

The Philippines is taking steps to make divorce legal, which is a big change in policy. Representative Edcel Lagman pushed for this bill to become law in the House of Representatives, which it recently passed. The Bill's goal is to give people who are stuck in violent or dysfunctional marriages legal freedom. It will now go to the Senate for further approval.

HISTORICAL AND CULTURAL BACKGROUND

The Philippines is mostly a Roman Catholic country because it was once a Spanish colony. Its national policies are strongly influenced by religion. In the past, divorce was legal before colonization and for a short time during the American and Japanese invasions. However, the Catholic Church strongly opposes divorce because they believe that marriage is a holy commitment. As a result, divorce is not allowed in most countries today, except in Muslim countries where Sharia law applies

CURRENT RIGHTS OF SEPARATION

Filipinos can only choose between legal split or annulment right now because they can't get a divorce. Legal separation lets two people live apart without stopping their marriage, which means that neither person can get married again. An annulment, on the other hand, says that a marriage doesn't exist and that it never did. There are strict and often expensive requirements that must be met for this to happen

DETAILS OF THE PROPOSED DIVORCE BILL

The suggested law lists specific reasons for "absolute divorce," such as mental incapacity, irreconcilable differences, and different types of abuse. The process includes a mandatory "cooling-off" time of 60 days meant to give both sides a chance to work things out. This is followed by a legal proceeding that must be over within a year. If the decree is approved, it would be possible for divorced people to get married again.

THAILAND INITIATES FIRST SENATE ELECTION SINCE 2014 COUP

Thailand has begun the process of holding its first election for the Senate since the military took over in 2014. The previous Senate, which was put together after the coup, finished its term in May. Over 48,000 people applied for the 200 open Senate seats, which are usually filled by people who support the military and the royalist program. Very important changes include lowering the number of senators from 250 to 200 and taking away their power to choose the Prime Minister.

PROCEDURE OF THE SENATE ELECTION?

Members of the next Senate will be chosen from 20 different career and social groups. Those who want to apply must be Thai citizens and at least 40 years old. There are strict requirements to meet, and there is a 2,500 baht application fee. The current Senate members who were elected after the coup and active political party members were not qualified. The Election Commission is in charge of reviewing the applications. Voting will take place from June 9th to June 26th, and the findings should be available by July 2nd.

INDIA,FRANCE

INDIA, FRANCE SET TO NEGOTIATE RAFALE MARINE JET DEAL

India has started talking to France about buying 26 Rafale Marine fighter jets, which is expected to be a deal worth Rs 50,000 crore. The Indian government gave its approval for these advanced fighter jets from France to be sent to the country's aircraft carrier, INS Vikrant.

RATIONALE BEHIND CHOOSING RAFALE MARINE

After a lot of tests at a facility on land in Goa, India, the Rafale Marine, which is also called the Rafale M, was chosen over the American F/A-18 Super Hornets. The fact that the Rafale M can work with the Indian Air Force's current Rafale fleet is a big plus for it. This interoperability means that about 80% of the spare parts and maintenance parts for both versions can be used on the other. This should save a lot of money. The Rafale M also has reinforced parts, like the nose and landing wheels, that are made to handle the rough conditions of operating an aircraft carrier.

SPECIFICATIONS OF RAFALE MARINE

The Rafale M is a single-seat multi-role fighter plane made by Dassault Aviation. It is 15.30 meters long, 10.90 meters wide, and 5.30 meters high, and it can take off with a weight of up to 24.5 tonnes. The plane has a top speed of 750 knots (1,389 kmph) and can fly at up to 50,000 feet. It can take up to 9.5 tonnes of cargo on the outside.

OPERATIONAL CAPABILITIES

As well as air defence, nuclear deterrence, intelligence, and deep strike operations, the Rafale Marine can do many other things. Meteor and MICA missiles, SCALP, HAMMER, AM39 EXOCET missiles, and laser-guided bombs are just some of the weapons that can be used with it. It also has an internal cannon that fires 2,500 shots per minute. The Rafale is what Dassault Aviation calls a "omnirole aircraft" because it can be used in a lot of different types of warfare.

PROVEN TRACK RECORD

The Rafale has been an important part of the French military since it was first used in 2004. The Standard F1 version is designed for air-to-air fighting. As its operational skills grew, the Standard F3 variant came out in 2008, which could do a wide range of air-to-ground missions. The French military has been getting the newest Rafale fighters in the Standard F4 version since the beginning of 2023. This shows that the fighters are getting better and better at their job.

KERALA PLANS

ROUND CALENDAR TO COMBAT NIPAH VIRUS

The government of Kerala has said that they will be making a special action calendar to stop Nipah virus breakouts, which have happened many times in the state. Because of the past of major outbreaks in 2018, 2019, 2021, and 2023, mostly in the districts of Kozhikode and Ernakulam, the state government is working harder to reduce this health risk. Finding antibodies to the Nipah virus in bats in several areas shows that this zoonotic virus is still a threat.

DEVELOPMENT OF AN ACTION CALENDAR

Because of the repeated Nipah outbreaks, Veena George, the state's health minister, has released a full calendar for the whole year, with a focus on May to September, when the virus is most likely to spread. The goal of this proactive approach is to stop the virus from spreading as much as possible by doing a variety of preventative and preparedness activities.

INTERDEPARTMENTAL COLLABORATION

A high-level meeting with health officials was held to talk about and prioritize Nipah and bird flu prevention tactics in order to make the state more ready. The Health Minister pushed for stronger efforts to be made with the Animal Husbandry, Forestry, and Education departments, stressing the importance of working together.

FOCUS ON HIGH-RISK DISTRICTS

Because of the Nipah incidents that have happened in the northern districts of Kozhikode and Wayanad, these places are getting extra attention. Up until September, the state plans to run strong campaigns to avoid crime and make people aware of the problem. Health workers have been told to keep a close eye on people and act quickly if they show any strange symptoms that could be Nipah, like fever, headache, shortness of breath, or encephalitis.

MORE ABOUT ZOONOTIC DISEASES

Zoonotic diseases are those that are spread from animals to people. More than 60% of known diseases that can spread to people are spread by animals. Some well-known zoonotic diseases are:

- Rabies, which is spread by animal bites,
- Ebola, which is spread by monkeys and bats
- Ticks, which are mostly found on deer, carry Lyme disease.
- Fruit bats are where the Nipah virus comes from.
- There is a link between camels and the Middle East Respiratory Syndrome (MERS).
- Swine flu is mostly spread by pigs, while bird flu is mostly spread by chickens.
- Zoonotic pathogens can be bacteria, viruses, or parasites, and they can be passed from person to person or indirectly through mosquitoes or ticks. Most new diseases that affect people are also spread by animals

ATMF REPORT

TACKLES GLOBAL ACCESS TO ANTIBIOTICS

The Access to Medicine Foundation (ATMF) Netherlands, just put out a very important study that talks about some of the biggest problems in the pharmaceutical industry. "How can pharma get the few promising drugs in development to patients battling superbugs?" is the title of the report that looks at the current state of antibiotic development and how these drugs can be made available to people who need them, especially when it comes to Antimicrobial Resistance (AMR).

WHAT IS ANTIMICROBIAL RESISTANCE (AMR)?

AMR happens when microorganisms like bacteria, viruses, fungi, and parasites change so that they can't be killed by medicines. This makes it harder to treat common illnesses and raises the risk of disease spreading, getting very sick, or dying. The study stresses the important prediction that AMR could kill 10 million people every year by 2050 and have a big effect on how medicine is done and the amount of poverty around the world.

EXAMINATION OF KEY PHARMACEUTICAL PROJECTS

The Foundation looked closely at five important late-stage drug development projects that were aimed at serious pathogens that are not easily killed with medicine. Well-known companies like GSK, F2G, Innovica, Venatorx, and Pfizer are working on these projects, which include new medicines. The study rates these projects on how innovative they are in fighting hard pathogens and how easy and cheap they might be to get, especially in low- and middle-income countries (LMICs).

FINDINGS ON GLOBAL ACCESS AND STEWARDSHIP

The sharp results show that there aren't any clear plans for registering the drugs in LMICs—only five of the 113 countries showed clear intentions. Also, the study shows that there was a big mistake in the arrangements for affordability and stewardship that were needed to make sure that these new therapies are available and used wisely to stop the spread of resistance even more.

THE ROLE OF PAEDIATRIC TRIALS AND PARTNERSHIPS

One encouraging thing that was found is that children were included in the studies, which suggests that the treatments could be used in more places in the future. In addition, the study praises partnerships like the Global Antibiotical Research and Development Partnership, which helps smaller businesses have a bigger effect by working together with bigger drug companies. These relationships are very important for moving access plans forward, along with other strategies like the Stewardship and Access Plan (SAP).

AMAZON RAINFOREST

FACING CRITICAL RECOVERY CHALLENGES

New study has found a worrying trend in the amazon rainforest, more than a third of this important ecosystem is having a hard time recovering from repeated droughts. Some research on this topic was released on may 20, 2024, in the proceedings of the national academy of sciences. The study was called **"critical slowing down of the amazon forest after increased drought occurrence."**

DROUGHT IMPACT AND FOREST RECOVERY

The study found that from 2001 to 2019, the Amazon experienced three very severe droughts, which have been called "once-in-a-century" events in the past. Because of climate change, these are happening more often and getting worse, which makes it much harder for the rainforest to heal. These slower rates of healing show up as fewer trees growing and more trees dying, which could cause forests to die back.

MECHANISMS OF TREE MORTALITY

Researchers found that trees are mostly affected by drought in two ways: carbon starvation and hydraulic failure. When plants close their stomata to save water, photosynthesis stops, and there is a negative carbon balance. This is called carbon starvation. On the other hand, trees die from hydraulic failure when they lose a lot of water and their xylem channels burst. This stops water from moving through the tree and kills it. The study found that the severity of the drought had a bigger effect on these processes than the length of the drought.

IMPLICATIONS FOR FUTURE RESEARCH AND CONSERVATION

Even though things are very bad, not all parts of the Amazon are showing signs of a major slowdown. In the Amazon, this means that certain areas of forest may be more at risk. These kinds of changes to the environment have big effects on biodiversity, climate control, and the Earth's ability to store carbon. The researchers stress how important it is to keep these forests safe and highlight the important role that indigenous and traditional groups play in conservation efforts. They want to keep an eye on the Amazon jungle and push for proactive preservation policies to stop more damage and possible tipping points.

URBANIZATION
BOOSTS NIGHT-TIME WARMING IN INDIAN CITIES:STUDY

A new study from the Indian Institute of Technology Bhubaneswar shows that more people living in cities is making the nights much warmer in over 140 major Indian cities. The study that compared these urban areas to their non-urban peers found that temperatures rose 60% more at night in cities. This was mostly because of the urban heat island (UHI) effect. The temperature rose the most in important cities like Ahmedabad, Jaipur, and Rajkot. Other cities, like Delhi-NCR and Pune, also saw big changes.

UNDERSTANDING URBAN HEAT ISLAND (UHI) EFFECT

The UHI effect happens when buildings in cities, especially those made of concrete and asphalt, soak up and store heat during the day and slowly let it out at night, making the nights warmer. New research shows that this release of heat not only raises the temperature at night, but it also changes the climate overall by changing things like the pattern of rains and the amount of pollution in the area.

ANALYSIS OF URBANISATION ON LOCAL CLIMATE

The main goal of the study was to look at how urbanization has changed the temperature, especially over the last twenty years (2000–2020). The average rise due to urbanization was about 0.2 degrees Celsius per decade, which means that urbanization is responsible for about 37.73 percent of all urban heat. This in-depth study showed that cities warmed up almost twice as fast as the rest of the country.

DIFFERENTIAL REGIONAL IMPACT

The temperature rose more noticeably at night in cities in the northwest, northeast, and south of India. On the other hand, urbanization itself had a bigger effect on the eastern and central parts of the country, which are growing quickly. This variation between regions suggests that urban planning and climate resilience measures should be changed to fit the needs and stage of development of each area.

GOVERNMENT CRACKS

DOWN ON SMS SCAM ENTITIES

As part of the Sanchar Saathi program, the Department of Telecom (DoT) and the Ministry of Home Affairs (MHA) have recently taken strong steps to stop SMS fraud. Over 10,000 fake texts sent in the last three months have been found, which is why this is being done. Because of the Indian Cyber Crime Coordination Centre's (I4C) warning about the misuse of eight specific SMS headers, those headers were put on a ban.

UNDERSTANDING PRINCIPAL ENTITIES AND SMS HEADERS

'Principal entities' in the context of telecommunications are companies or legal entities that send commercial SMS messages to telecom subscribers. Something called a "SMS header" is a string of letters and numbers that these groups use to send their messages. The DoT found that these headers were being used for illegal activities online, which is why the related organizations and headers were put on a blacklist.

EXTENT OF THE CRACKDOWN

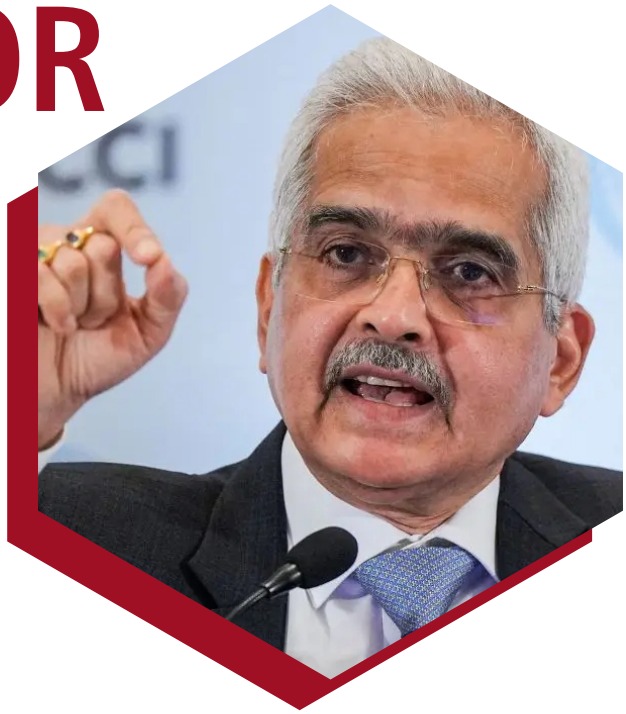
The DoT not only put the eight main entities on a blacklist, but they also stopped people from using all 73 SMS headers and 1,522 content templates that these entities owned. This was a big step forward for the effort. Because of this, these headers and templates can't be used in any more messages, stopping them from being used for more fraud.

IMPLICATIONS AND CONSUMER PROTECTION MEASURES

As part of the DoT's larger plan to protect people from online threats, this crackdown is happening. The DoT wants people to use the Chakshu feature on Sanchar Saathi to report any strange or fraudulent messages. These kinds of preventative steps help the DoT stop people from abusing telecom resources. Also, it's important to remember that cell phone numbers shouldn't be used for calling. Any abuse could cause the connection to be cut off after the first report, and the person's information could be put on a blacklist for two years.

RBI GOVERNOR UNVEILS

KEY FINANCIAL INITIATIVES FOR 2023



To make financial services easier to get to and better at what they do, RBI Governor Shaktikanta Das recently launched three big projects: the Pravaah site, the Retail Direct Mobile App, and a FinTech Repository. These plans came from what the RBI said in its Development and Regulatory Policies reports in 2023 and 2024.

ABOUT PRAVAAH PORTAL

The Pravaaah portal was created to make the regulatory process easier and faster. It lets people and businesses apply for different types of regulatory licenses online. The Reserve Bank of India hopes that this project will make the approval processes work better. Its goal is to make things easier to use and more efficient by streamlining processes within the application system.

ABOUT RETAIL DIRECT MOBILE APP

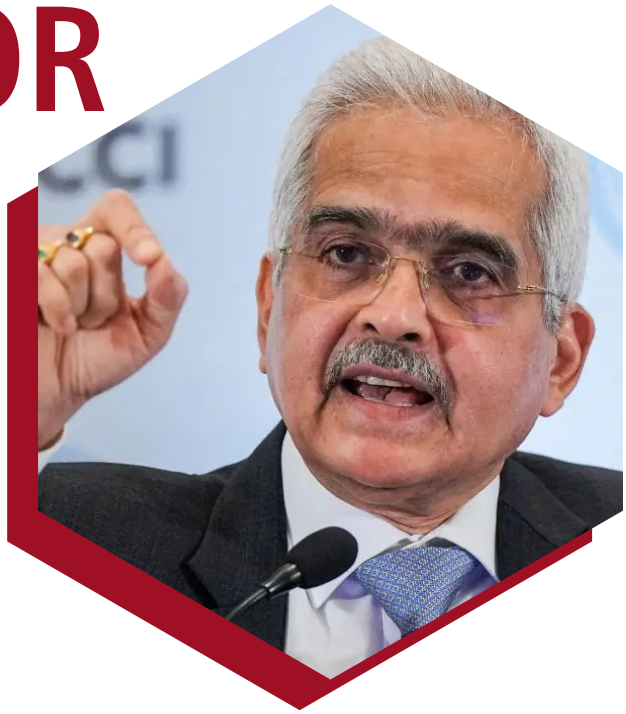
Additionally, the Retail Direct Mobile app was released to make investing in government bonds easier for regular people. With this app, investors should be able to easily buy and handle their government securities (G-Secs). Investing in government bonds is usually a difficult process, but this app makes it easier.

ABOUT FINTECH REPOSITORY

The final initiative, the FinTech Repository, is meant to be a complete database of information about Indian FinTech companies. Its goal is to help people understand and regulate a field that is changing quickly. By providing important data that can be used for regulatory reasons, the repository will help policymakers make smart, useful decisions. The RBI wants these projects to support more transparency, make it easier for people to get financial services, and improve regulatory frameworks so they can keep up with changes in technology.

RBI GOVERNOR UNVEILS

KEY FINANCIAL INITIATIVES FOR 2023



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Immigration New Zealand (INZ) will add a new requirement to all applications for guest visas. Now, supporting papers sent with applications must be in English or have certified translations with them if they were written in a language other than English.

REASON FOR THE NEW POLICY

This change is meant to speed up the visa application process by cutting down on the time needed to read papers written in languages other than English. Earlier, the need to translate these papers within the company had caused delays in the processing of visas.

DOCUMENTS NEED FOR TRANSLATION

Candidates must submit English translations of several supporting papers, such as, but not limited to: Bank bills and pay stubs are examples of proof of funds. Flight plans and tickets for the return trip. Proof that the candidate has a job and proof of time off from work from their home country. ID cards that aren't IDs, like the Hukou for Chinese citizens. To be clear, doctor and police certificates already need to be translated into English. This policy will not change.

CERTIFIED TRANSLATION REQUIREMENTS

The translations must be done by either a reputable translation service or a member of the community who is known for doing accurate translations and has nothing to do with the applicant (like family members or the immigration expert who is handling their application). INZ will also accept translations from qualified immigration advisers (LIAs), as long as they are known for being accurate translators and aren't working on the same application themselves.

CONSEQUENCES OF NON-COMPLIANCE

Applications that do not provide the appropriate English translations are likely to be turned down if they do not meet these requirements. This shows how important it is to make sure all documents are translated properly and officially to avoid delays or rejections. This change to INZ's policy is meant to speed up and simplify the visa application process by getting rid of any language hurdles that might come up. Applicants should make sure they meet the new standards so that the process of getting a visa goes more smoothly and faster.

CHINA PROPOSES

'ONE PERSON, ONE FILE' SURVEILLANCE ESCALATION

"One Person, One File" (OPOF) is a program suggested by the government of Shanghai that would make digital surveillance and censorship much stricter in China. According to experts, the plan includes installing more facial recognition cameras and making detailed personal profiles for every resident. This is an example of the Chinese Communist Party's (CCP) unprecedented attempt to control and watch the people.

BACKGROUND OF DIGITAL SURVEILLANCE IN CHINA

China has stepped up its monitoring measures since Xi Jinping took office. This is part of a larger trend of rising authoritarianism. To stop any threats to its power and security, the government uses cutting edge technologies such as AI, data analytics, and large camera networks. This move toward high-tech government, along with old-fashioned authoritarian methods, has created a complex and all-encompassing monitoring state.

HOW OPOF WORKS

OPOF wants to scan and organize every part of a person's life, from their daily habits to their social connections and even their political views. Because this information is kept in individual files, it is easier for the government to keep an eye on, control, and get involved in the lives of people they think are a threat to the state. Because the system relies on AI, people can be flagged and punished for what are often false claims of disobeying or not following the rules.

HUMAN RIGHTS IMPLICATIONS

Putting in place OPOF and other similar tracking systems has very bad effects on human rights in China. Based on vague criteria set by computers, the system automatically accuses people of possible crimes or protests before they have done anything wrong. This has led to unfair detentions, questioning, and in the worst cases, violence and suppression of minorities, especially in places like Xinjiang.

DUBAI LAUNCHES

GAMING VISA FOR GLOBAL INDUSTRY LEADERSHIP

The Dubai Gaming Visa was just made available as part of the Dubai Program for Gaming 2033 (DPG 2033). The goal of this project is to make Dubai a major player in the world gaming market by 2033. The visa is meant to bring in talented gamers, content makers, and experts from all over the world.

DUBAI PROGRAM FOR GAMING 2033 (DPG 2033)

DPG 2033 was started by the government of Dubai to make the city a global hub for gaming. The program aims to add about $1 billion to the GDP and make 30,000 new jobs by 2033. Some of its strategies are to hire people from other countries, improve the skills of people in its own country, and create a setting that encourages new ideas in gaming.

OBJECTIVES OF DPG 2033

- These are the main goals of DPG 2033:
- **International Talent Recruitment:** The Dubai Gaming Visa is a way for the city to bring in top professionals to improve the quality and diversity of its gaming business.
- **Development of Local Talent:** The program helps local talent grow by giving them opportunities to learn and by holding events related to the industry.
- **Supportive Ecosystem:** The program helps entrepreneurs and companies grow by giving them money, mentoring, and chances to meet other people in the same field.
- **Esports Promotion:** Dubai is a great place for esports because it hosts events and leagues.
- **Support for Innovation:** DPG 2033 actively backs research and development, helping to create and launch new gaming technologies and goods.

ELIGIBILITY CRITERIA

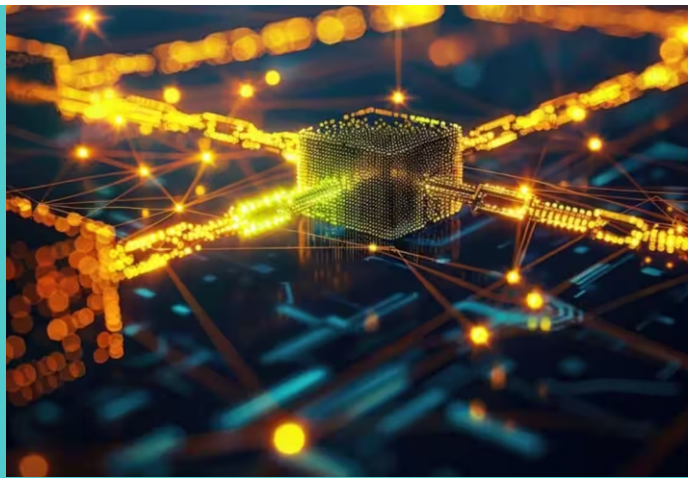
Applicants must be at least 25 years old with proven expertise in the gaming field (as players, developers, or in other related capacities). A detailed CV that focuses on gaming, a copy of your passport, and, if you have it, proof of your educational and community contributions are all required papers.

BENEFITS OF THE DUBAI GAMING VISA IN 2024

For people, the visa allows them to live in the country permanently and gives them a Creative and Talented Accreditation Certificate to show their dedication and skill. Dubai's state-of-the-art gaming infrastructure offers a lot of job options, the chance to make a lot of money, and a lot of chances to meet new people. The fact that there are no taxes is a bonus. For the gaming business, the visa: –

- Makes it easier to find talented people, this makes the local gaming scene more diverse and creative.
- It's expected to have a big effect on Dubai's economy by creating jobs and bringing in money.
- Makes the company more visible around the world. It helps Dubai become a world leader in new game ideas.
- Encourages people from different backgrounds to get along in the gaming group.

IIT BOMBAY, TCS DEVELOP INDIA'S FIRST QUANTUM DIAMOND MICROCHIP IMAGER



IIT Bombay and TCS, India's biggest IT services company, are working together to make the country's first quantum diamond computer imager. This technology was just announced and it looks like it will completely change how semiconductor chips are inspected.

WHAT IS QUANTUM DIAMOND MICROCHIP IMAGER?

A quantum diamond computer imager works in a way that is similar to how MRIs work in hospitals. It makes image magnetic fields possible so that semiconductor chips can be mapped without damaging or removing them. As semiconductor technology gets smaller, this ability is becoming more and more important as traditional sensing methods fight to keep up.

INTEGRATION OF ADVANCED TECHNOLOGIES

This Indian-made imager uses quantum diamond microscopy along with software that is better at AI and machine learning. This puts India at the centre of the quantum revolution. It is expected that the microchip imager will make it easier to inspect semiconductor chips more accurately, lower the number of failed chips, and make electronic gadgets use less energy.

APPLICATIONS AND IMPACT

Semiconductor chips are used in many fields, such as clean energy, communications, computing, healthcare, defence systems, and transportation. Over the next two years, TCS and IIT Bombay will work together to make these gadgets safer, more reliable, and better at using energy.

STRATEGIC IMPACT AND INDUSTRIAL APPLICATION

This project is part of the "Second Quantum Revolution," which is moving quickly and needs people with skills in sensing, computing, and communication tools to work together. CTO of TCS, talked about how this project could change many businesses and how it would help society as a whole.

INDIAN PEACEKEEPER

WINS 2023 UN MILITARY GENDER ADVOCATE AWARD

Major Radhika Sen, an Indian peacekeeper in the Democratic Republic of the Congo (DRC), won the prestigious UN Military Gender Advocate of the Year award in 2023. This award was given to her because of her outstanding service and active participation in gender-sensitive projects at the UN peacekeeping operation MONUSCO.

CONTEXT AND DEPLOYMENT

Major Sen was in charge of the Engagement Platoon for the Indian Rapid Deployment Battalion in Eastern DRC from March 2023 to April 2024. During her time in office, she made important improvements to the safety and well-being of local people, especially in the conflict-torn North Kivu area.

ADVOCACY FOR GENDER SENSITIVITY

Major Sen pushed for gender-sensitive actions and exchanges in her platoon, creating a welcoming and polite space for everyone. Her work went beyond military service; it included English classes for kids and people who had been forced to move or were on the outside of society, as well as educational and vocational training. She actively worked to bring women together and pushed them to fight for their rights and get more involved in neighbourhood discussions about peace and safety.

RECOGNITION AND AWARDS CEREMONY

Antonio Guterres, who is Secretary-General of the UN, is going to give the award to Major Sen to recognize how important she is to the UN's goals of peace and equality. The ceremony shows how important it is to keep the peace while taking into account the needs of both men and women, and how important people like Major Sen are in war zones.

About MONUSCO

The UN Security Council created MONUSCO, the UN Organization Stabilization operation in the Democratic Republic of the Congo, in 2010. It grew out of MONUC, which was an earlier operation. It is one of the biggest UN efforts to keep the peace, with about 16,300 people working there. It is MONUS.servers' job to keep people safe from violence, especially in places like North Kivu that are prone to conflict. There has never been a time in UN peacekeeping history when UAVs were used for monitoring like they are now. Another thing that makes MONUSCO stand out is its Intervention Brigade, which was permitted in 2013 to carry out targeted offensive actions against armed groups. This is something that not many other UN missions can say.

WHAT IS WET BULB TEMPERATURE? EXPLAINED

India is currently dealing with a very hot spell that is hurting many states, such as delhi, uttar pradesh, punjab, and rajasthan. The combination of high temperatures and high humidity is having a big effect on daily life.

UNDERSTANDING HUMIDITY MEASUREMENT

Finding out how uncomfortable it is during a heatwave depends on how much humidity there is. Three types of **Temperatures are used to figure it out:** dry bulb, wet bulb, and dew point. The way each one measures humidity is as follows:

Temperature of the dry bulb – This is the average temperature of the air as measured by a monitor that has not been wet.

Temperature of the wet bulb –This measures the coolest air that can get by evaporating water at a steady pressure. For measurement, a damp cloth is put around the thermometer bulb. Since evaporation cools the bulb, the number on the thermometer goes down. The wet bulb temperature is important for measuring humidity because it shows how much water the air can hold and helps us understand how evapo transpiration affects plants and people's comfort.

Temperature at the dew point – This tells you the temperature at which the air is completely saturated (100% humidity) and water vapor starts to turn into dew.

SIGNIFICANCE OF WET BULB TEMPERATURE

Higher humidity lowers the cooling effect of evaporation because wet air stops more evaporation. So, if the temperatures of the wet bulb and the dry bulb are close to each other, it means that there is a lot of humidity. It's more uncomfortable in hot weather when the difference is small.

SAFE LIMITS OF HEAT AND HUMIDITY

People used to think that a wet-bulb temperature of 35°C was the highest temperature that was safe for them to endure, but new research suggests that this limit might be lower. Penn State University researchers found that people's core temperatures can start to rise over time at lower levels of heat and humidity. Wet-bulb temperatures around 31°C and over 50% humidity, or a mixture like 38°C and 60% humidity, can be very dangerous, according to these results.

AN OVERVIEW OF THE

AMRUT SCHEME

India is rapidly urbanizing, which is causing a big change in the country's population. By 2047, it is expected that over half of the people will live in cities. It's important to make big investments, says the World Bank. They say that basic urban infrastructure needs will cost about $840 billion over

INTRODUCTION TO THE AMRUT SCHEME

The NDA-1 government started the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) in June 2015 to deal with important building problems in cities. The main goal is to improve city life by providing better water and sewer connections, making public areas greener, and encouraging environmentally friendly ways to get around. AMRUT includes cities and towns with more than 100,000 people. The first part of the mission cost 50,000 crore and lasted for five years, ending in 2020.

EXPANSION UNDER AMRUT 2.0

Building on AMRUT 1.0, which came out in October 2021, AMRUT 2.0 is more focused on making towns "water secure." The new spending plan calls for 2,99,000 crore over the next five years. A lot of this money will go toward managing all sewage and making sure that all urban areas have working tap connections. Up to May 2024, 83,357 crore had been spent on the updated goal to improve urban services and infrastructure in a big way.

CHALLENGES AND REALITIES

Even though a lot of money has been spent and infrastructure has been improved, India's cities are still having serious problems with water and sewage. Every year, bad water quality and hygiene cause a lot of deaths and a lot of diseases. Major cities are rapidly losing their groundwater supplies, and a lot of people in cities don't have access to running water or good toilets. The problem is made even harder by the damage to the environment that happens because of bad planning.

CRITIQUE OF THE AMRUT APPROACH

People have said that AMRUT's implementation was flawed because it was managed from the top down, there wasn't a big-picture plan, and city governments weren't involved enough. The plan is run by bureaucrats and private interests, and local elected representatives are often left out of the governance structure. This goes against the 74th Constitutional Amendment's goals of decentralization and more local government. Also, the way water and garbage are usually managed doesn't take local environmental conditions into account, and real estate gains often take precedence over urban planning, which makes urban sprawl and environmental problems worse.

DENGUE OUTBREAKS

RISE IN AMERICAS DUE TO CLIMATE CHANGE

While dengue fever used to only happen in tropical areas, there are now an alarmingly high number of cases in both those areas and other places, like the US and Europe. This rise in dengue cases is a growing global health issue. It is thought to be caused by climate change and changes in how people travel around the world.

OUTBREAKS IN LATIN AMERICA

Dengue fever is spreading very quickly in Latin America right now. One year after the previous year, the number of dengue cases in the area rose by 238% in just over four months in 2024. The Pan-American Health Organization reported 4.1 million cases last year, which is more than 400% more than the five-year normal. This area is especially at risk because the weather changes between hot, humid, and wet times, which are perfect for Aedes Aegypti mosquitoes, which are the main carrier of dengue.

CLIMATE IMPACT AND EL NIÑO SOUTHERN OSCILLATION

The weather, especially the El Niño Southern Oscillation (ENSO), plays a big part in causing dengue breakouts. ENSO causes a pattern of wet and dry periods that moves around the region, making it easier for mosquitoes to lay their eggs. Together, this and global warming are making outbreaks happen more often and with more force.

NORTH AMERICA'S INCREASING DENGUE CASES

Dengue attacks in North America used to happen less often, but now they happen every year. Mosquitoes can live and breed longer when it's warmer all year, not just in the summer. When 400 people were hospitalized with dengue in March, Puerto Rico declared a dengue emergency. Cases are now being reported in Hawaii, Arizona, Florida, Texas, California, and even Washington, DC.

NEWS CORP
SIGNS CONTENT DEAL WITH OPEN AI

Recently, there have been a lot of agreements between news organizations and AI companies. Now, News Corp has joined forces with OpenAI. With this partnership, standard ways of spreading news will be replaced by ones that use AI technologies. News Bellwether and OpenAI have agreed to work together for several years so that OpenAI can use both new and old news information from its many publications. OpenAI is known for making important AI models.

DETAILS OF THE NEWS CORP AND OPENAI PARTNERSHIP

OpenAI can now access a huge library of material from many of News Corp's well-known publications, such as The Wall Street Journal, Barron's, and the New York Post. Unlike previous agreements, which were mostly about training AI models, this one gives OpenAI the right to use News Corp's material to answer user questions. Details about the money involved have not been made public yet, but estimates say the deal could be worth more than $250 million over five years.

BROADER CONTEXT OF MEDIA COMPANIES COLLABORATING WITH AI

Other big news organizations, like The Associated Press, Axel Springer, and The Financial Times, have also licensed their content to AI companies, mostly for training reasons. News Corp is not the only one doing this. As this trend shows, news organizations are becoming more interested in working with AI companies to reach more people and adapt to new technology.

IMPLICATIONS OF THE PARTNERSHIP

CEO of OpenAI Sam Altman says that this relationship could lead to more partnerships between journalism and AI in the future, to keep high journalistic standards in AI applications. This deal has also been seen as credit-positive by Moody's, which shows that it could be good for News Corp's finances and technological progress. The changing nature of partnerships points to a big change in how news content is used and shared, which points to a digital future where AI makes the news business much stronger.

IRDAI SETS

NEW GUIDELINES FOR FASTER HEALTH INSURANCE CLAIMS

he Insurance Regulatory and Development Authority of India (IRDAI) recently put out a very important statement that aims to make health insurance services in India more efficient and effective. This change is meant to make the cashless claim process easier and faster for policyholders and to make insurance companies follow strict reaction times.

100% CASHLESS CLAIM SETTLEMENTS

The new rule says that all insurance companies must try to settle all claims without using cash. That is, deals that need cash should only happen very rarely and in very special situations. The main goal of these rules is to make it much less necessary for policyholders to get reimbursed after treatment. This will make the process easier and more patient-friendly.

STRICT TIMELINES FOR CLAIM PROCESSING

With the new rules, insurance companies have to answer requests for cashless claims authorization within an hour of getting them. In medical situations, where time is often of the key, this quick response is very important. Also, for release procedures, the final approval should be given within three hours of getting the request from the hospital in question.

PENALTY FOR DELAYS

If an insurance company doesn't meet the three-hour limit for discharge authorizations, IRDAI makes them pay for any extra costs that arose because of the delay. The insurer's own funds, especially the funds from its shareholders, will pay for these costs. This is to make sure that policyholders don't lose money because of the delay.

POLICY CANCELLATION AND GRACE PERIOD ADJUSTMENTS

Additionally, the circular makes it easier for customers who want to cancel their insurance. The time you have to give to stop has been cut from 15 days to 7 days. A written notice is now enough. For monthly premiums, you have 15 days to make up for late payments. For quarterly premiums, you have 30 days. This clause gives consumers some freedom in how they handle their finances without affecting their insurance coverage right away.

FACTS ABOUT IRDAI

Establishment and Purpose:

- **Founded in 1999.**
- **Located in Hyderabad, India.**
- **Regulates and promotes the insurance and re-insurance industries in India.**

MISSION AND OBJECTIVES

- **Protects policyholder interests.**
- **Ensures growth and development of the insurance sector.**

KAZA SUMMIT
UNDERWAY IN ZAMBIA

The kavango-zambezi trans-frontier conservation area (kaza tfca) summit took place in livingstone, zambia, in may 2023, and more than 400 people were there. Representatives from angola, botswana, namibia, zambia, and zimbabwe met at this meeting for five days, from may 27 to may 31. The kaza conservation area is made up of these countries. It is known for having a lot of wildlife, including the world's largest population of elephants.

OBJECTIVE AND SIGNIFICANCE OF THE SUMMIT

The main goal of the KAZA TFCA meeting was to look at how far the conservation area has come since it was first set up and how it has grown. The Memorandum of Understanding made in 2006 and the KAZA Treaty of 2011 were looked at to see how well they were being put into action to protect biodiversity and boost the economy through nature-based tourism. Zimbabwe's Director for Wildlife and Forestry Management talked about how the meeting wanted to make KAZA the best-managed conservation area in the world.

KEY ISSUES AND DISCUSSIONS AT THE SUMMIT

The latest aerial census showed that there are a stable 230,000 elephants, which shed light on the main topic of the discussion: how to manage the elephant population. Some of the main issues that were talked about were the problem of too many elephants and the effects of international laws, like CITES's bans on wildlife hunting trophies and trade limits on elephant products. The effects of climate change and the recent severe droughts caused by El Nino were also important topics of conversation.

EXPECTED OUTCOMES AND COMMITMENTS

The summit was planned to end with a high-level meeting of the presidents of the five countries, where they were supposed to reaffirm their support for the conservation effort. The main idea of the summit was to use the area's natural and cultural resources to help everyone's social and economic growth. This helped people make choices that would improve both conservation efforts and community benefits. The main goals of the KAZA TFCA summit were to look at the success that had been made, deal with environmental and economic problems, and change plans so that the region's rich biodiversity could help it grow. This project is not only important for the earth, but it's also a big way for people in Southern Africa to work together.

INDIA BOOSTS

LAB-GROWN DIAMOND SECTOR, KOREANS INNOVATE PRODUCTION

In order to encourage more people to make diamonds in India, Finance Minister Nirmala Sitaraman's 2023-24 Budget included big benefits like lowering the taxes on diamond seeds used to make lab-grown diamonds. Furthermore, IIT Madras was given a grant of 242 crore to create the India Centre for Lab Grown Diamonds (InCent-LGD), which will help study in the area of lab-grown diamonds (LGDs).

TRADITIONAL METHODS OF DIAMOND PRODUCTION

The 'high pressure, high temperature' (HPHT) process, which was founded by General Electric in 1955, has been the standard way to make diamonds. This process recreates the natural conditions in which diamonds form in the Earth: temperatures between 1,300 and 1,600 degrees Celsius and very high pressures of about 5 giga Pascals are used to turn carbon into a liquid metal. The carbon then slowly settles on top of a diamond seed, turning into a solid over 12 days. This method can only make jewels up to a certain size, though.

NEW INNOVATIONS IN DIAMOND MANUFACTURING

An international group of scientists from the Ulsan National Institute of Science and Technology in Korea, led by an Indian scientist, has announced a big step forward in the process of making diamonds. Their study, which was published in the journal Nature, shows a new way to grow diamonds at just 1,025 degrees Celsius and, more importantly, at normal atmospheric pressure. This is very different from the high-pressure environments that are usually needed.

METHODOLOGY OF THE KOREAN RESEARCH TEAM

Gallium, iron, nickel, and silicon were mixed specially by the team and put in a graphite furnace. They made it easier for diamonds to form at the bottom of the crucible, where the mixture had hardened, by adding methane at a controlled temperature of 1,175 degrees Celsius. The diamonds that were made looked like they were made of rainbow colors. The team was able to make the diamonds even more pure by using a different type of methane (13CH4).

ADB COMMITS
$2.6 BILLION TO INDIA FOR VARIOUS PROJECTS

ADB, the Asian Development Bank, promised to give a large amount of money (2.6 billion USD) to India in 2023 for several development projects. As part of this promise, USD 23.53 million in professional help and USD 4.1 million in grants were also given under the sovereign portfolio. In addition, over the past year, the bank has given more than USD 1 billion to projects in the private sector.

AREAS OF FOCUS

THE ADB'S FUNDING IS MEANT TO HELP WITH SEVERAL IMPORTANT GROWTH PROJECTS, INCLUDING:

- *Improving the connectivity of infrastructure*
- *Supporting the growth of industry corridors*
- *Pushing for changes in the power sector, especially those that involve renewable energy*
- *Making India more climate-resilient*

SIGNIFICANT ALLOCATIONS WERE MADE TO VARIOUS IMPACTFUL PROJECTS:

- Additional funding for India's national industrial corridor development program, which seeks to enhance the country's manufacturing competitiveness.
- Support for urban reforms and power sector reforms at the state level.
- Expansion of urban services in states like Uttarakhand, Rajasthan, and Tripura.
- Improvement in road connectivity in Bihar and Madhya Pradesh
- Expansion of the Delhi-Meerut rapid rail transit corridor.
- Development of horticulture in Himachal Pradesh.

STRATEGIC FOCUS ON STATE DEVELOPMENT

The ADB uses a different approach for each state depending on its level of development. For example, in low-income states, the focus is on providing basic services, improving critical infrastructure, and building stronger institutions through sovereign operations. In more developed states, the focus is on transformational projects that include non-sovereign operations and policy and knowledge advice.

SWEDEN DONATES
ADVANCED RADAR PLANES TO UKRAINE

The Swedish government just recently said that it would be sending a lot more troops to help Ukraine fight Russia. As part of this help, Sweden is giving Ukraine two advanced radar surveillance and command aircraft. This shows how important Sweden is to strengthening Ukraine's defences.

DETAILS OF THE AID PACKAGE

The new aid package from Sweden, worth about 13.3 billion Swedish crowns ($1.3 billion), is the country's biggest gift to Ukraine so far. Two Saab Airborne Surveillance and Control (ASC) 890 planes are the most important part of this deal. The advanced technology in these planes makes it easier to find targets at a long distance, which is very important for defence and strategic missions.

ENHANCING UKRAINE'S AIR DEFENCE CAPABILITIES

The main purpose of the given ASC 890 planes is to improve the air force of Ukraine, especially with the upcoming arrival of F-16 fighter jets. These jets, which were given to Ukraine by other Western countries, are very important for the country's efforts to update its air force, which is currently using old planes from the Soviet era, and make its defence and offence better against Russian military pressure.

STRATEGIC IMPLICATIONS OF THE DONATION

The donation from Sweden is likely to have strategic effects in the short and long run. In the short term, better surveillance will help Ukrainian troops find threats and deal with them better. Integrating these planes with F-16 fighter jets will greatly improve the operational efficiency of the Ukrainian Air Force in the long run.

WORLD UNEMPLOYMENT
TO FALL SLIGHTLY IN 2024: UN

The International Labour Organization (ILO) recently said that the rate of unemployment around the world will settle at 4.9% in 2024, a small drop from the previous year. This increase is a big change from earlier predictions, which called for a rise to 5.2%. After re-evaluating, the ILO sees a slightly better future for jobs around the world, though rates are still expected to stay the same at 4.9% until 2025.

UNDERSTANDING UNEMPLOYMENT DEFINITIONS AND IMPACT

The International Labour Organization (ILO) says that there are about 183 million people around the world who are officially jobless. This number includes people who are actively looking for work and are ready to start right away. Alarmingly, this number goes up to 402 million when you include people who want to work but aren't looking for it right now. The difference shows how complicated the global job market is as a whole.

FOCUS ON GENDER INEQUALITY IN LABOUR MARKETS

The ILO says that ongoing inequality in the labor market, especially for women and people living in low-income countries, is one of the most important problems that needs to be fixed. In this area, 22.8% of women who want to work are still jobless, while only 15.3% of men in the same situation are also unemployed. High-income countries also have differences between men and women, though they are not as noticeable. For example, the jobless rate for women is 9.7% and the rate for men is 7.3%. This contrast goes beyond unemployment; women are also more likely than men to quit their jobs altogether, showing that there are big differences between men and women in global work.

ABOUT THE INTERNATIONAL LABOUR ORGANIZATION (ILO)

ESTABLISHMENT AND HISTORY

Founded in 1919 under the League of Nations.

Became a specialized agency of the United Nations in 1946.

Emerged from post-World War I peace negotiations.

MANDATE AND GOALS

Promotes social justice and international labor standards.

Aims to improve conditions and rights for workers worldwide.

HEADQUARTERS AND RECOGNITION

Headquartered in Geneva, Switzerland.

Recipient of the Nobel Peace Prize in 1969 for working to promote peace and fairness between social groups.

SIGNIFICANT CONTRIBUTIONS:

- Created the Declaration on Fundamental Principles and Rights at Work in 1998.
- Focuses on four core rights: Abolishing forced labor, Eliminating child labor, Prohibiting discrimination in employment, and Ensuring freedom of association and collective bargaining.
- Influences legal frameworks and labor practices globally.

INDIA'S RUDRAM-II

MISSILE TEST-FIRES SUCCESSFULLY OFF ODISHA COAST

A big step forward in india's defence was made when the rudram-ii missile was successfully tested from a su-30 fighter jet off the coast of odisha. This accomplishment shows how much better india is getting at making advanced weapon systems on its own.

SUCCESS OF THE RUDRAM-II MISSILE TEST

The test, which was run by the Indian Air Force (IAF) with help from the Defence Research and Development Organization (DRDO), met all of its goals and confirmed the accuracy of the missile's control, tracking, and propulsion systems. Along the flying path, instruments like radar, telemetry, and electro-optical systems checked the data.

ACKNOWLEDGEMENTS AND FUTURE IMPLICATIONS

Defence Minister Rajnath Singh and DRDO Chairman Samir V Kamat praised the teamwork that went into the test. This successful test not only proves that RudraM-II works well in the real world, but it also shows that it could be a valuable strategic tool for strengthening the IAF.

UNDERSTANDING RUDRAM MISSILES

The first anti-radiation weapon made by India is called Rudram. It uses "passive homing head" technology to destroy enemy radar and communication systems. It does a good job of locking on to targets even if the source of radiation stops working during the attack phase.

EVOLUTION AND STRATEGIC ENHANCEMENT

The RudraM-II is part of a line that includes the RudraM-1, which is mostly used for Suppression of Enemy Air Defences (SEAD), and the RudraM-3, which will have a longer range. These developments are the result of work done together by DRDO, IAF, and Hindustan Aeronautics Ltd. They show a focused attempt to build strong air-to-surface warfare capabilities. This test is an important part of India's plan to improve its tactical and strategic defences, especially when it comes to missile technology and air superiority. It lays the groundwork for future improvements and operating readiness.

VENUS SHOWS

INCREASED VOLCANIC ACTIVITY, STUDY REVEALS

According to scientists, Venus, Earth's nearest neighbor planet, has more volcanic activity than was thought before. Researchers concluded by looking at old radar images collected by NASA's Magellan probe during its time orbiting Venus from 1990 to 1992.

MAGELLAN'S ROLE IN VENUSIAN RESEARCH

It gave a lot of information because it mapped out about 98% of Venus's surface. Recent improvements in computers have made it possible to look more closely at these radar images, which has led to discoveries about Venus's geological processes. Based on this study, Venus may have about the same amount of volcanic activity as Earth.

NEW VOLCANIC SITES IDENTIFIED

The study mostly looked at two places: Sif Mons, a big volcano in Eistla Regio that is about 300 km wide, and a huge volcanic plain in Niobe Planitia. When radar pictures from different times were compared, they showed that new lava flows had spread over 30 square kilometres near Sif Mons and 45 square kilometers in Niobe Planitia. Recent volcanic action is likely to be behind these flows.

CHARACTERISTICS OF VENUSIAN VOLCANOES

Both of the discovered volcanoes are shield volcanoes, which are like the volcanoes in Hawaii. They have wide, gentle slopes that are made from lava that flows easily. The new information showed that the lava came from slopes facing west in Sif Mons and from small shield volcanoes facing northeast in Niobe Planitia.

IISC DEVELOPS

SAFER PROTEIN PRODUCTION USING MSG

The Department of Biochemistry at the Indian Institute of Science has developed a new way to make recombinant proteins. Monosodium glutamate (MSG), a better and easier-to-get food additive, is now used instead of methanol, which was previously used in the activation process.

UNDERSTANDING RECOMBINANT PROTEIN PRODUCTION

Growing genetically modified cells in big bioreactors make recombinant proteins, which include important things like insulin, vaccine antigens, and monoclonal antibodies. People often use the yeast Pichia pastoris, which is now known as Komagataella phaffii, because it can easily express proteins. To start making hybrid proteins, this yeast has a special promoter that is turned on by methanol. However, methanol is dangerous and can cause several problems, such as fires and damage to proteins through oxidation.

THE ROLE OF MSG IN SAFER PROTEIN PRODUCTION

The IISc researchers came up with a new way to use MSG to turn on a different promoter in the yeast genome. This time, they chose the one that codes for the enzyme phosphoenolpyruvate carboxykinase (PEPCK). This new idea not only lowers the risks of using methanol, but it also keeps protein production levels at a good level.

APPLICATIONS AND FUTURE OUTLOOK

This MSG-based expression method is safe and works well. It has big implications for biotechnology. It gives us a good way to make a lot of different proteins that are used in medicine (like therapeutic molecules), baby food products, and other fields. If this study is successful, it could lead to a change in biotechnological methods around the world that are safer and better for the environment.

ABOUT MONOSODIUM GLUTAMATE (MSG)

Monosodium glutamate (MSG) is a flavor enhancer that comes from glutamic acid, an amino acid that is naturally found in many foods. MSG was found by the Japanese scientist Kikunae Ikeda in 1908. It doesn't have its own taste, but it makes other flavors stand out and taste better. The FDA says that MSG is safe, despite what most people think. Side effects are rare and usually mild. MSG doesn't make people fat, and it doesn't have a big effect on blood pressure or heart rate. It is also found naturally in foods like cheese and peppers, and the body breaks it down in the same way that other amino acids do. Despite what some people say, scientific research has not found a clear link between MSG and asthma or headaches. Since MSG also improves flavor, it can be used to cut down on salt intake.

RBI RELEASES
FINAL GUIDELINES FOR FINTECH SRO

The Reserve Bank of India (RBI) finished the rules for setting up a self-regulatory organization (SRO) for the growing fintech industry in 2023. This is better than the draft guidelines that were first suggested in January, after hearing from people in the business. The RBI wants these SROs to be places where different players in the fintech industry, besides banks, can go to be regulated and represented.

WHO DOES IT COVER?

The SRO is meant to cover a wide range of fintech activities, such as digital loans, peer-to-peer (P2P) services, and account aggregators. It's important to note that these SROs urge both regulated and mostly unregulated fintech companies to join. The goal is to include a wide range of industry players to make sure that there is full oversight and inclusion.

MANDATES AND FUNCTIONS OF THE SRO

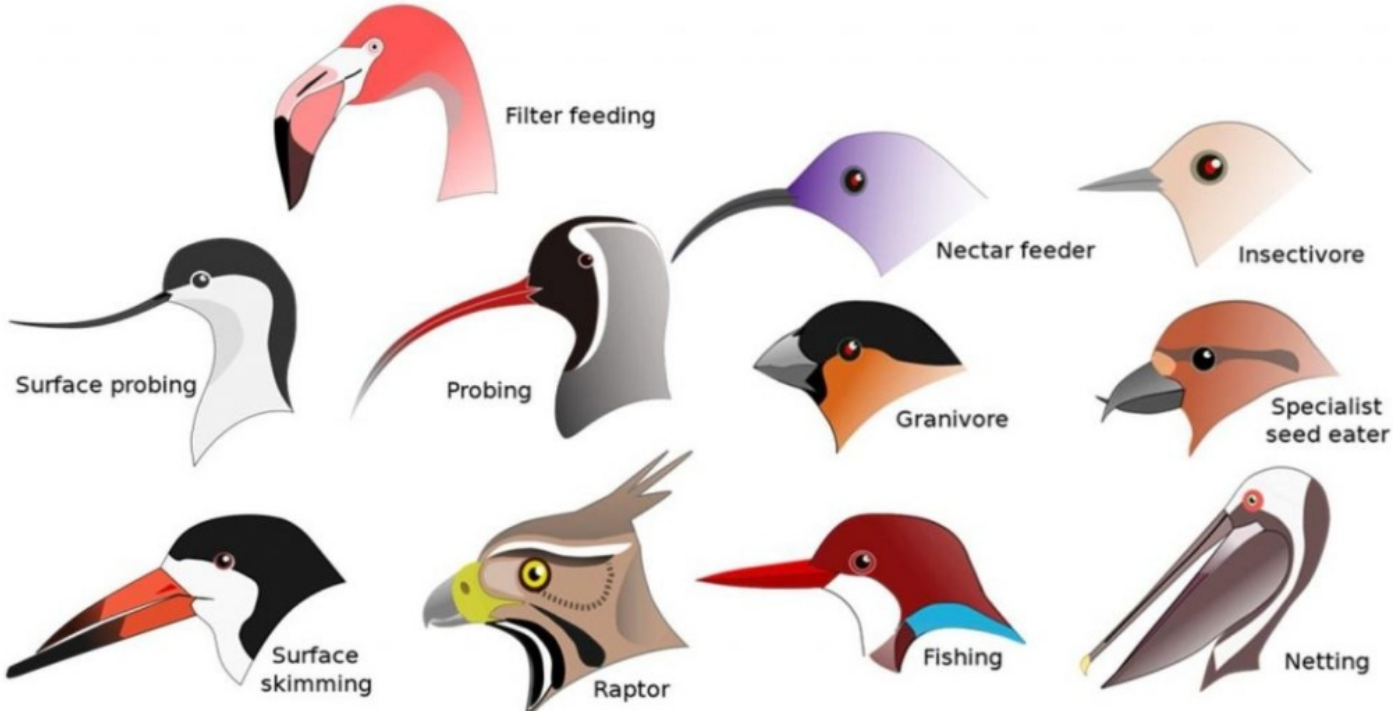
The RBI has set out some important duties for the SRO, such as representing the fintech sector, keeping data safe, following development principles, settling disputes, making sure members follow the rules, and staying separate from outside influences. In addition, the SRO is in charge of controlling risks that could hurt users, like fraud, mis-selling, and transactions that aren't supposed to happen.

ENFORCEMENT AND MONITORING

The guidelines stress how important it is for the SRO to effectively oversee and police the rules. This means coming up with basic rules and guidelines for behaviour, as well as strong ways to keep an eye on people and make sure they follow these rules. The SROs should also have ways for people to file complaints. This will help customers and fintech companies talk to each other and work out their problems.

MULTIPLE SROS AND MEMBERSHIP

The RBI has allowed the creation of various SROs because it understands that the Indian fintech landscape is diverse. Every financial company needs to be a part of at least one SRO. Because of this, fintech companies can pick an SRO that fits their goals and business model well. But SROs that can't get enough members could lose their status from the government.



IIT BOMBAY

STUDY EXPLORES NON-GEOGRAPHIC SPECIATION MECHANISMS

A major study from the Indian Institute of Technology Bombay (IIT Bombay) that was released in NPJ Systems Biology and Applications has shed new light on how sympatric speciation works. Researchers have seen speciation, or the creation of new species, happen even when there are no physical obstacles. This is something that is usually linked to being geographically isolated.

UNDERSTANDING SPECIATION

Allopatric speciation is the main way that we understand speciation. This is when physical barriers, like mountains or bodies of water, split populations, which leads to the creation of new species. In contrast, sympatric speciation happens in the same area of land, where there are no such hurdles.

INSIGHTS FROM THE IIT BOMBAY STUDY

Researchers led by Professor Supreet Saini looked into what causes sympatric speciation by using a genetic-based model that focused on a bird community. The research focused on three important areas:

ROLE OF DISRUPTIVE SELECTION

The IIT Bombay study focused on disruptive selection, in which factors like the availability of resources play a big part. Birds with different-sized beaks developed different ways of eating, which reduced competition and led to a variety of traits that were good for survival and breeding.

IMPACT OF SEXUAL SELECTION

The study also looked into sexual selection, which is usually thought of as a strong force behind speciation. However, results show that mating choices based on physically observable traits (like beak size) that improve resource utilization were more important in sympatric speciation than was thought before.

GENETIC ARCHITECTURE'S INFLUENCE

The genetic architecture, or the genes that control a trait, is very important for the probability of sympatric speciation happening. The study discovered that genetic factors that allow beak sizes to vary could create new species, even with only a small amount of negative selection. Limitations and Directions for Future Research Even though the study made some important discoveries, it does admit that beak size could cause bias in mate selection, which could change over time. The current study aims to create and use lab models, like yeast, to learn more about the problems that come up when sympatry tries to reproduce.

MANGROVES IN SOUTH INDIA

SRI LANKA LABELED 'CRITICALLY ENDANGERED

Coastal mangroves in Tamil Nadu, Sri Lanka, and the Maldives were recently rated as "critically endangered" by the International Union for Nature Conservation (IUCN). According to the IUCN's first global assessment of mangrove ecosystems, this scary classification shows that these places have a lot of problems that need to be fixed for conservation reasons.

DETAILS OF THE IUCN ASSESSMENT

The IUCN study, which came out on May 22, looks at mangroves from 36 different places around the world, including tropical, subtropical, and some warm temperate coasts. In particular, parts of South India, Sri Lanka, the Maldives, and the warm, temperate northwest Atlantic have been named as severely endangered. Some places in South India were looked at, like Muthupet in Thiruvarur district, Ramanathapuram, and parts of southern Kerala.

IMPORTANCE OF MANGROVE ECOSYSTEMS

Mangroves are very important for protecting biodiversity, giving local people important goods and services, and reducing the effects of climate change. Protecting the coast, fishing, and keeping the water clean depend on these habitats. Losing mangrove areas is bad for both the environment and the people who live in places that depend on them.

CONSERVATION EFFORTS IN TAMIL NADU

The situation in Tamil Nadu looks better, even though the forecast is not good. For example, in Tamil Nadu, the area of mangroves has grown from 23 square kilometres in 2001 to 45 square kilometres in 2021, according to the Indian State of Forest Report. Forming 20 village mangrove groups was an initiative by the state to get local people involved in conservation efforts and encourage ownership and long-term use of mangrove resources. Scientists use the groups to make sure that mangrove areas get enough freshwater and that scientific management is carried out properly.

NVIDIA STOCK

HITS RECORD HIGH, APPROACHES APPLE'S VALUE

New Rise in the Price of Nvidia's Stock market value rose sharply on May 28, when its stocks hit a new high. They are now worth almost as much as Apple's. The value of the company's shares went up by 6%, making the stock price $1,128 and the market capitalization of the company about $2.8 trillion.

FACTORS CONTRIBUTING TO NVIDIA'S RALLY

The main reasons for this big rise in Nvidia's stock prices are the company's optimistic sales forecast for the second quarter and its announcement of a stock split. Investors are very interested in Nvidia's work in artificial intelligence (AI), which is a field that is growing very quickly. This is because Nvidia has strong financial performance and a strategic place in the technology market.

AI AND TECH INDUSTRY IMPACT

Nvidia is currently very successful because big tech companies like Alphabet, Microsoft, and Amazon are buying more and more of its high-performance microchips for their data centres. These chips are necessary to run complex AI programs, which is why Nvidia's sales in this area have grown five times.

COMPARISON WITH APPLE AND MICROSOFT

While Nvidia is growing quickly, Apple has been having a rough time, with stock values going down slightly because iPhone sales are down and competition in China is high. But Microsoft is still the most valuable company in the world, thanks in large part to how quickly and well it added AI to its cloud services. Apple's later adoption of AI technology, on the other hand, shows that the company might not be able to keep its marketplace.

FUTURE PROSPECTS: NVIDIA VS. APPLE

A big change is coming to the tech world as Nvidia gets closer to passing Apple in market value. With Nvidia's clear growth trend and Apple's recent performance issues, investors and people in the business world are eagerly waiting to see if Nvidia will pass Apple and become the third most valuable company in the world, narrowly behind Microsoft.

OSIRIS-APEX
SAFELY NAVIGATES CLOSE SUN APPROACH

The OSIRIS-APEX project has changed since its start as OSIRIS-REx, which successfully took samples from the asteroid Bennu. The spacecraft is now on a longer mission that includes a move to visit the asteroid Apophis. In this new phase, the mission's path will be changed to bring the spacecraft 25 million miles closer to the sun than expected, making several important perihelion passes.

INNOVATIVE ENGINEERING AND THERMAL MANAGEMENT

At this first perihelion, it was very important to see how well the spaceship could handle the high temperatures and radiation close to the sun. The clever adjustment of the solar panels was a safety step that worked, as shown by analyses done after the perihelion. These showed that the spacecraft's surface or the way the camera on board OSIRIS-APEX worked didn't change in any noticeable ways.

CAMERA PERFORMANCE AND FUTURE CONCERNS

Another important discovery from this mission phase was that MapCam, another camera used to map rocks, was in better shape than before. It had 70% fewer hot pixels, which is a typical problem that happens when something is exposed to sunlight for a long time. This improvement came directly from the heat from the close meeting with the sun. As for the future, the spacecraft has done well so far, but it's not clear how the next perihelion passes will affect the instruments on OSIRIS-APEX. The next close approach to the sun is planned for September 1.

MORE ABOUT ASTEROID BENNU

Discovered in 1999, asteroid Bennu is a carbonaceous object that is about 500 meters across and is close to Earth. Following the path of an old Egyptian god connected to the Sun and creation, Bennu circles the Sun every 1.2 years and comes very close to Earth every 6 years. On its way to studying the early solar system, NASA's OSIRIS-REx mission, which took off in 2016, gathered samples from Bennu in 2020. The chances of Bennu hitting Earth in the late 22nd century are very high—about 1 in 2,700. Samples are hard to get because it spins quickly—every 4.3 hours—and has a surface covered in bubbles. According to some theories, Bennu's makeup could include organic molecules and water trapped in clay rocks. This could help us understand how life started on Earth.

EXPLORING
THE POTENTIAL OF PERSONALIZED
CANCER VACCINES

Cancer vaccines are a type of immunotherapy. Unlike vaccines that are meant to avoid cancer, these are used to treat cancer by helping the immune system find and kill cancer cells. Using technologies like DNA sequencing and artificial intelligence to make personalized vaccines has been a big focus of recent progress. Notably, ongoing trials, such as the first phase 2 study of an mRNA-based vaccine for melanoma, have shown promise in stopping cancer from coming back.

MANUFACTURING PROCESS

A tumor sample is surgically removed and then put through DNA analysis as the first step in making a cancer vaccine. In addition, artificial intelligence is used to find specific changes. The end result is a personalized vaccine that is meant to help the immune system find and fight cancer cells that are unique to each patient.

ACCESS TO CANCER VACCINES

Currently, most of these vaccines can only be gotten through clinical trials. For example, the Cancer Vaccine Launch Pad in England matches patients with vaccine studies that are a good fit for them. The goal of this groundbreaking effort is to get a lot more people to take part in vaccine trials.

PATIENT EXPERIENCE IN TRIALS

Genetically tailored vaccines are made from the cancer cells of patients like Elliot Pfebve, who joined a study after being diagnosed with colorectal cancer. Surgical procedures and treatment are used in the early stages, followed by vaccinations. Even though it's too early to say for sure that the vaccines have worked, the positive reactions so far show that they could become a regular component of cancer treatment in the future.

SIGNIFICANCE OF CANCER VACCINES

Cancer vaccines are a revolutionary new way to treat cancer, and they might work well with other treatments like surgery and chemotherapy. These vaccines are still being worked on, but they give people hope for a real, effective treatment choice that might become easier to get and more common over time. Cancer vaccines are a promising new development in oncological treatment. They aim to provide a targeted, personalized answer to managing cancer and preventing recurrence, showing how far medical science has come in its fight against cancer.

AGNIKUL COSMOS

LAUNCHES FIRST 3D PRINTED ROCKET ENGINE

A company called Agnikul Cosmos, which was started at IIT Madras, made history on May 30, 2024, by safely launching "Agnibaan – SOrTeD," the world's first rocket powered by a fully 3D-printed engine. This important event happened at Sriharikota from India's first privately built launchpad, called "Dhanush." The launch is not only a big step forward in technology, but it also makes India a leader in the aerospace industry when it comes to using new production methods like 3D printing.

TECHNOLOGICAL INNOVATION

Agnikul Cosmos' use of 3D printing technology to make rocket motors makes the manufacturing process a lot easier. Co-founder and CEO, says that the engine was made as a single piece, so there was no need for multiple parts and welds. This new idea cuts costs, shortens wait times, and makes the rocket more reliable and efficient. India has also developed and built a semi-cryogenic engine from scratch for the first time.

SIGNIFICANCE OF THE SUCCESS

'Agnibaan – SOrTeD's' successful operation shows that Agnikul Cosmos can not only handle complicated technologies but also make sure that customer payloads are transported safely. This makes partners and customers more confident in Agnikul Cosmos's ability to carry out the planned orbital flights. The launch also showed how well government organizations like IN-SPACe and the Indian Space Research Organization (ISRO) could work together and help each other.

OPERATIONAL CHALLENGES AND ACHIEVEMENTS

Developing "Agnibaan – SOrTeD" meant overcoming many difficulties linked to putting the launch vehicle together and making it work. Over 15 teams from the Satish Dhawan Space Centre SHAR (SDSC SHAR) worked together to make the launch process even better by practicing it over and over again. There were a lot of difficulties that had to be mastered along the way as the transition from manufacturing to seamless launch operations happened.

ABOUT AGNIKUL COSMOS

Agnikul Cosmos wants to make space access more open to everyone by using new technologies like 3D printing and making launch ships that can be used in a variety of ways. Their most important vehicle, called Agnibaan, can carry anywhere from 30 kg to 300 kg and has a launch capability that can be changed to meet the needs of each customer.

RELIANCE

TATA, SII IN TIME'S 100 MOST INFLUENTIAL COMPANIES 2024

The Tata Group, Adar Poonawalla's Serum Institute of India (SII), and Mukesh Ambani's Reliance Industries Limited (RIL) were named by TIME magazine as some of the most important companies in the world in 2024. This recognition shows how important these Indian companies are on a world scale and how innovative they are.

OVERVIEW OF INDIAN COMPANIES ON THE TIME 100 LIST

Reliance Industries, having entered TIME's prestigious list for the second time, was placed in the 'Titans' category along with the Tata Group. The Serum Institute of India was categorized under 'Pioneers'. These categorizations reflect each company's role and achievements within the world of business.

ABOUT RELIANCE INDUSTRIES

Reliance was started by Dhirubhai Ambani 58 years ago as a cloth and polyester company. It has grown into India's most valuable company, with a market value of more than $200 billion. TIME drew attention to Reliance's huge step forward in the digital and entertainment industries, especially the huge $8.5 billion deal between the company and Disney to improve its position in India's growing streaming and over-the-top (OTT) markets.

ABOUT SERUM INSTITUTE OF INDIA

The Serum Institute of India makes 3.5 billion doses of vaccine every year, making it the world's biggest vaccine manufacturer. The company saved millions of lives during the COVID-19 pandemic by making a lot of vaccines, which shows how important it is to world health.

ABOUT TATA GROUP

One of India's oldest companies, the Tata Group, was praised for its wide range of businesses and recent progress in the tech industry, which includes investments in AI and making semiconductors. Notably, the group began putting together iPhones in 2023, which was a big step forward in the production of tech products.

SIGNIFICANCE OF TIME'S 100 MOST INFLUENTIAL COMPANIES LIST

Each year since 2020, TIME has put out a list of the world's most influential, innovative, and leading companies in a variety of fields. Nominations are carefully considered by TIME's network of experts as well as outside experts. The result is a highly regarded yearly feature that highlights global business wins and discoveries. The complete list will be detailed in the June 10, 2024 of TIME magazine.

AI HELPS SEARCH

FOR ENDANGERED PLANT'S FEMALE PARTNER

Artificial intelligence (AI) is used to help researchers find a female partner for E. woodii, also known as the **"world's loneliest plant."** This project aims to naturally spread the species, which is now extinct in the wild and can only be found in botanical parks where it is grown.

BACKGROUND OF E. WOODII

The cycad E. woodii is one of the oldest seed-bearing plants on Earth, it lived before even the dinosaurs. The animal was last seen in the Ngoye Forest in South Africa. The fact that the only specimens we know of are males makes spontaneous reproduction very hard.

THE ROLE OF ARTIFICIAL INTELLIGENCE

AI is being used to look at thousands of pictures from a recent study of the Ngoye Forest by a group led by Dr. Laura Cinti. The AI uses advanced image recognition algorithms to help find similar plant species in a huge set of data that comes from high-quality multispectral camera video.

EXPLORING REPRODUCTIVE ALTERNATIVES

Researchers have thought about making a male plant change into a female since they haven't found any female plants yet. Extreme changes in the climate have caused sex shifts in other cycad species, which supports this idea.

CURRENT STATUS AND FUTURE PROSPECTS

Less than 2% of the Ngoye Forest has been studied so far, which means there is still a chance that a female E. woodii could be found. Dr. Cinti is still hopeful that he will be able to find a match, which could allow the species to reproduce normally and come back from the brink of extinction.

About E. woodii

The E. woodii, or Wood's cycad, is a rare type of cycad that has two sets of flowers. It is native to South Africa, especially the Ngoya Forest in KwaZulu-Natal. It was found in 1895 by John Medley Wood and is named for him. Surprisingly, only male plants have been found. Since no female plants have been found in the woods, natural reproduction is not possible. This species is no longer found in the wild, but it lives on in botanical parks around the world through cloning and spreading. The Wood's cycad can live for more than 1,000 years and does best in subtropical climes. To protect its genes, people are trying to hybridize E. woodii with species that are closely related to it. Even though many people have looked for her, no female has ever been found. This shows how hard it is to protect species where there are major gender differences.

UK COMMITTEE ADVISES KEEPING GRADUATE ROUTE VISA UNCHANGED

It was reviewed by the UK's Migration Advisory Committee (MAC) in May 2024, and they said that the Graduate Route Visa (GRV) should stay the same. This choice is in line with what stakeholders think because they value the GRV for making it easier to find work in the UK after graduation.

GRADUATE ROUTE VISA EXPLAINED

The GRV, which started in 2021, lets foreign students stay in the UK to look for work or gain experience for two years after finishing a bachelor's or master's degree, or for three years after finishing a doctoral degree. This visa cannot be extended, but it can be changed into a Skilled Worker visa.

MAC'S KEY RECOMMENDATIONS

The MAC said that the GRV should stay the same, pointing out that the plan was meeting government goals well. To protect the integrity of UK Higher Education, other suggestions included making rules tighter for universities and making it a requirement for them to report when agents are used.

IMPACT ON INDIAN STUDENTS

Indian students, who make up the largest group of international students in the UK, will gain from keeping the GRV because it will provide stability. As the number of students in the UK is expected to rise to 170,000 by 2025, consistency in the GRV is very important for people who want to go to school there.

ECONOMIC CONSIDERATIONS OF STUDYING IN THE UK

It is still expensive to study in the UK. For undergraduates, tuition costs between £10,000.00 and £38,000.00 per year, and it's a little higher for postgraduate classes. Living costs add to the financial stress, but the chance to advance professionally and gain foreign work experience can more than makeup for these costs.

MORE ABOUT GRADUATE ROUTE VISA (GRV)

The Graduate Route Visa (GRV) lets foreign students in the UK stay and look for work for two years after they graduate. People with a PhD can stay for three years. It starts in July 2021 and doesn't need a backer or a job offer. People who want to apply must be in the UK and have a current student visa. There is no cap on how many GRV visas can be given out. Once applicants find work, they can change their visas to skilled work visas. It replaced the Post-Study Work visa and was made to keep talented people from around the world in the UK.

MORE ABOUT UK INTERNATIONAL STUDENT POLICIES

In 2021, the uk government brought back the two-year post-study work visa, which lets graduates stay in the uk for two years after getting their degree.

Students from outside the UK can work up to 20 hours a week during the school year and full-time during the breaks.

Students from outside the EU need to get a Tier 4 (General) student visa, which requires them to show they can speak and write English well and have enough money to cover their stay.

If you are already in the UK, you don't need to apply for a new visa for the Graduate method.

The Doctorate Extension Scheme lets Ph.D. graduates stay for one more year after they finish.

As part of the visa application process, the UKVI does credibility interviews with applicants to find out more about their situation and plans.

Students need to show proof that they have been accepted to study (CAS) from an approved sponsor

You have to pay health fees in order to use the National Health Service.

Because of Brexit, EU students had to pay more for their classes, the same as other foreign students.

There are scholarships just for foreign students, but they are very hard to get.

WHO NEARS DEAL

ON NEW PANDEMIC RESPONSE RULES

The 194 member states of the World Health Organization (WHO) are about to finish two years of talks in Geneva on new rules for how to respond to a pandemic. The main goal of these talks is to strengthen global defences against future pandemics. They are very important for updating current health protocols and making a new legally binding treaty. These talks were sparked by the effects of the COVID-19 pandemic, which killed millions of people around the world.

THE PANDEMIC TREATY

The suggested pandemic treaty aims to fix the problems with the current International Health Regulations (2005), which were thought to be not good enough during the COVID-19 pandemic. Even though these rules worked well for local health problems like the Ebola outbreak, they weren't enough to handle a global pandemic. The treaty aims to make sure that everyone has equal access to medical resources like vaccines by suggesting that the WHO set aside about 20% of these resources to give to poorer countries during health crises.

REVAMPING INTERNATIONAL HEALTH REGULATIONS (IHR)

A more complex alert system is being considered for the IHR. It will include a "early action alert" in addition to the present system that only recognizes a "public health emergency of international concern" (PHEIC). The goal of this change is to make it easier for the whole world to respond faster and in more ways to new health threats. More changes are being made to make states more responsible for reporting public health events. The present language of "may" is being changed to "should."

INTERNATIONAL DISAGREEMENTS AND NEGOTIATIONS

Developed and developing countries have had major differences during negotiations, especially about how to divide up medical resources and who is responsible for paying for them. These disagreements have slowed down the negotiations and forced last-minute talks to stay on track. Political pressures, especially from groups on the right that care about national security, have made the talks even more difficult.

MORE ABOUT INTERNATIONAL HEALTH REGULATIONS (2005)

OVERVIEW AND PURPOSE

- The International Health Regulations (IHR) (2005) are legally binding rules for 196 countries, effective from June 2007.
- These regulations aim to build capacity for and respond to public health risks while avoiding unnecessary interference with international traffic and trade.
- They were revised following the 2002-2003 SARS outbreak to better address global public health emergencies.

KEY PROVISIONS AND SCOPE:

- The IHR (2005) mandates countries to report events of international concern within 24 hours.
- Traditional focus on communicable diseases.
- Addressing chemical hazards that pose public health risks.
- Including radiological emergencies that could impact health.

PROPOSAL TO TREAT BREASTFEEDING AS CARBON OFFSET EMERGES

New studies and suggestions show that breastfeeding should be seen as an environmentally friendly practice that helps the economy grow and is good for long-term development. As worries about the health effects and damage to the environment from commercial milk formulas grow, researchers in global health are pushing for the value of women's nursing to be added to GDP and considered as possible "carbon offsets."

ENVIRONMENTAL AND HEALTH CONCERNS WITH COMMERCIAL MILK FORMULAS

Commercial milk formulas hurt the earth because they use a lot of water and release greenhouse gases. Studies show that manufacturing formulas need a lot of dairy farms, processing, transporting, and packaging, which has big environmental costs. When it comes to health, the broad advertising and availability of these formulas have made breastfeeding less common in many countries, which is bad for both the health of the mother and the child.

ECONOMIC AND ENVIRONMENTAL BENEFITS OF BREASTFEEDING

Breastfeeding is a natural, renewable resource that not only doesn't produce any trash and has a small impact on the environment, but it also has big economic benefits because it makes babies and moms healthier. It saves money on healthcare costs by making it easier to avoid getting sick. When compared to formula feeding, nursing produces a lot less greenhouse gas emissions.

GLOBAL RECOGNITION AND SUPPORT FOR BREASTFEEDING

Even though breastfeeding is good for you, it is still not given enough attention in national business plans and food production systems. Supporters say that including breastfeeding in national budgets and GDP calculations could change the focus of investments to focus on female equality and sustainable development. This includes things like paid maternity leave, companies that are friendly to breastfeeding, and public health campaigns that encourage people to breastfeed.

WHAT IS THE IMPACT OF RECOGNIZING BREASTFEEDING AS A CARBON OFFSET?

If breastfeeding was seen as a way to offset carbon emissions, money from the commercial milk formula business could be used to promote and help breastfeeding. Not only would this help the environment, but it would also improve the health of women and children around the world, making the switch to sustainable methods more fair for both men and women.

MORE ABOUT BREASTFEEDING AS A CARBON OFFSET

Waste Reduction and Resource Conservation: By reducing waste and protecting natural resources, breastfeeding makes a big difference in protecting the earth. Breastfeeding doesn't need to be packaged, shipped, or thrown away like formula does, which is better for the environment generally. This natural process gets rid of the need to make and throw away formula packages, which cuts down on waste.

IMPACT OF FORMULA USE: Formula use creates a lot of trash in the US alone, with about 86,000 tons of metal and 364,000 tons of paper being thrown away every year. This trash hurts the environment and adds to the carbon footprint of making, transporting, and packaging formula goods.

Potential Environmental Benefits: Over 900,000 tons of CO2 could be saved each year if 90% of U.S. families fed their babies only breast milk for six months. This drop in carbon emissions is the same as taking 200,000 cars off the road. It will help the world become healthier by largely cancelling out carbon footprints. Because of this, breastfeeding is not only good for babies and moms' health, it is also very important for protecting the earth.

COVID-19
ERASES DECADE OF LIFE EXPECTANCY GAINS

According to a study from the World Health Organization (WHO), the COVID-19 pandemic has caused a big drop in life expectancy around the world. The results show that the average life expectancy is now 71.4 years, which is much lower than in previous years and the lowest level since 2012. The pandemic undid almost a decade's worth of gains in making people live longer around the world.

REGIONAL IMPACT AND LIFE EXPECTANCY LOSS

The WHO's World Health Statistics report shows that life expectancy is falling very quickly, especially in the Americas and Southeast Asia, where it dropped by about three years. Between 2019 and 2021, life expectancy fell by 1.8 years around the world, to 71.4 years. During that time, healthy life expectancy fell by 1.5 years, to 61.9 years.

LEADING CAUSES OF DEATH AND HEALTH CHALLENGES

Noncommunicable diseases (NCDs) like heart disease, stroke, cancer, Alzheimer's, diabetes, and chronic lung problems were the main causes of death around the world before COVID-19. In 2019, they accounted for 74% of all deaths. These conditions were still common during the pandemic, but COVID-19 became the third most common cause of death in 2020 and the second most common cause of death in 2021. Almost 13 million people have died around the world since Covid-19 broke out.

BURDEN OF MALNUTRITION AND OBESITY

The ongoing health crisis has also made problems with obesity and poor diet worse. Over a billion people over the age of five were considered obese in 2022, while more than 500 million were considered underweight. Children under five years old were severely affected by poor diet, with millions of them being stunted, wasting away, or being overweight.

EFFORTS TOWARDS HEALTH GOALS AND THE NEED FOR ACCELERATED PROGRESS

Some progress has been made toward the WHO's Triple Billion goals and some Sustainable Development Goals that have to do with health, but the pace is still slow. Estimates show that by 2025, not enough progress will have been made to protect the targeted populations enough during health crises. WHO officials are worried that these health SDGs might not be able to be met by 2030 if we don't speed things up a lot. A new Pandemic Agreement is very important, according to the WHO. Its goals are to improve global health security, protect long-term investments in health, and make things more fair.

MORE ABOUT GLOBAL LIFE EXPECTANCY

CURRENT STATISTICS AND DISPARITIES:

- The average life expectancy around the world has gone up a lot, now standing at 72.6 years in 2019.
- Monaco and Japan have the longest average life spans, at over 84 years.
- In some African countries, like Lesotho and the Central African Republic, people can expect to live just over 50 years.
- Around the world, women usually live five years longer than men.

SPACEX MEGA-ROCKET

STARSHIP'S NEXT LAUNCH ON JUNE 5

SpaceX recently announced that the next test flight for Starship, the world's most powerful rocket, will take place on June 5, 2024. If the government gives the go-ahead, this event will start at 7:00 a.m. local time at the Starbase in Boca Chica, Texas. It is an important part of both NASA's plans for a journey to the moon and Elon Musk's plans for people to live on Mars.

PURPOSE AND DEVELOPMENT OF STARSHIP

Starship is meant to be a fully reusable spaceship. This could make space travel much cheaper and make it easier to go on big space adventures. Starship is 397 feet tall, which is taller than the Statue of Liberty. Its Super Heavy booster gives it a huge boost, about twice as much as NASA's Space Launch System, which is its main rival. Still, NASA's rocket has all of its certifications, while Starship is still just a test.

PREVIOUS TEST FLIGHTS

In the past, the first three test flights of Starship all ended with the destruction of the craft. SpaceX says that these results are part of its rapid development method, which tests things in the real world instead of simulations. So, the fourth test that is coming up is very important because it will show if the vehicle can go into orbit, safely come back, and be used again.

GOALS FOR THE UPCOMING TEST FLIGHT

The planned flight path for the June test is supposed to be the same as the third flight, which was notable for sending the rocket halfway around the world and back down over the Indian Ocean. This time, the major goals are for the upper stage to safely re-enter the atmosphere and for the booster to enter and splash down safely in the Gulf of Mexico. If these areas are improved, it will be a big step toward making the rocket more reliable and reusable.

FUTURE PROSPECTS AND IMPORTANCE TO NASA

Beyond the test flights, NASA's planned lunar operations depend on Starship's success. In 2026, astronauts will use a modified version of Starship to land on the moon. Also, the fact that SpaceX's Falcon 9 rockets, Dragon capsules, and Starlink constellation of satellites have been so successful shows how important the company will be in future and current space operations. Because of this, the upcoming tests are very important not only for SpaceX but also for the larger goals of sending people into space.

PHILIPPINES

ATTRACT MORE INDIAN MEDICAL STUDENTS

The Philippines recently made major changes to its laws that allow foreign medical students, including those from India, to work as doctors in the Philippines after they graduate with a Doctor of Medicine degree. Because of this change, there will be 25 to 30 percent more Indian students in the Philippines.

IMPACT OF THE LEGISLATIVE AMENDMENT

Not only do these changes help Indian students, but they also help medical students from other countries who are learning in the Philippines. This amendment gives graduates a "clear pathway" to practice medicine in the Philippines or anywhere else in the world. It also makes the Philippines a better place to get medical education in the Asia-Pacific region.

BENEFITS FOR RETURNING INDIAN GRADUATES

The changes are especially good for Indian students who want to become doctors and work in India after they graduate. The National Medical Council (NMC) says that students must have a valid license to take the Indian screening test, which is a condition for practicing medicine in India. Indian students can get this kind of license after finishing their studies and work in the Philippines thanks to changes to the country's laws. This is in line with what the NMC requires.

ELIGIBILITY CRITERIA UNDER NEW LEGISLATION

Indian medical students must meet the following requirements to work as doctors in the Philippines:

- Get your Doctor of Medicine from a Philippine College of Medicine that is approved by the Commission on Higher Education (CHED).
- Do a job in the Philippines for a year. After meeting these requirements, grads can register and work as doctor in the area.

GLOBAL CONTEXT AND IMPACT

More Indian students are learning medicine in the Philippines. This is part of a larger trend where about 20,000 Indian students study medicine abroad every year. Russia, Kyrgyzstan, Georgia, Kazakhstan, and, in the past, China and Ukraine were also popular choices, but health and political problems have made it harder for students to leave those two countries. The Philippines' new law not only makes the country more appealing as a place to study, but it also helps medical professionals move around the world and raises the standards of medical education around the world.

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MYANMAR JUNTA

REVIVES $3.6 BILLION CHINESE-BACKED DAM PROJECT

With help from China, Myanmar's junta is starting up again the $3.6 billion Myitsone dam project that was put on hold before. This move is a big change in policy from when it was first put on hold in 2011 because of strong public opposition. The project is on the Ayeyarwady river in northern Kachin state. It includes plans for a 6,000-megawatt dam that will provide about 90% of the power needed by China.

COMPOSITION AND ROLE OF THE NEW LEADING GROUP

The project has been given to a new "leading group" with 11 members, one of whom is the deputy minister for energy. Their duties include study, technical solutions, and public relations. They were announced on April 24 and made public later. The Yunnan International Power Investment Company of the Chinese State Power Investment Corporation (SPIC) works with this group.

ENVIRONMENTAL AND SOCIAL CONCERNS

The dam's construction has been criticized for potentially causing extensive environmental damage and providing minimal local benefits. A 2015 environmental study paid for by the Myanmar government said that the dam shouldn't be built because it could change the flow of the river in big ways. In 2018, the World Wide Fund for Nature (WWF) pointed out that about two-thirds of Myanmar's people live in the Ayeyarwady area, which shows how big the problem could be.

GEOPOLITICAL AND INTERNAL CONFLICT DIMENSIONS

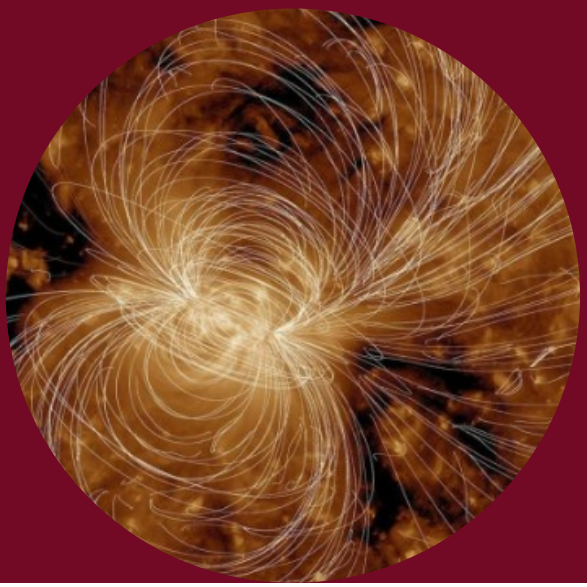
Tensions are still high between the Kachin Independence Army (KIA) and the Myanmar troops at the project site in Kachin state. The political arm of the KIA is going to talk about the junta's choice to bring the dam back to life. The project is also very important from a global point of view because China has a strategic interest in the area as part of its Belt and Road Initiative. But since the military coup in 2021, the region's security has been harmed, which slows down project progress.

CHINA'S ROLE AND THE PEACE PROCESS

China is still a very important player in the peace process in northern Myanmar. It has helped make past agreements possible and will continue to do so. China recently helped set up talks between Myanmar's military and ethnic armed groups, but there hasn't been much progress recorded. China has said again that it wants to see peace in the area and emphasized that it has both military and humanitarian interests in the area. The return of the Myitsone dam project is a complicated mix of local opposition, environmental concerns, and major geopolitical interests. It shows how hard it is to balance growth with sustainability and security in the area.

RESEARCH SHOWS

SUN'S MAGNETIC FIELD ORIGINATES CLOSER TO SURFACE



Recent studies and observations have shown that solar activity, especially solar storms, can have huge effects on Earth. Earth was hit by strong solar storms earlier this month, which included coronal mass ejections (CMEs) and strong solar flares. These storms caused beautiful auroras and problems with power and communication systems.

UNDERSTANDING THE SUN'S MAGNETIC FIELD

According to a new study from an international team, the sun's magnetic field is created much closer to the surface than was thought before. They say it's about 20,000 miles (32,000 kilometres) below, instead of the over 130,000 miles (209,000 kilometres) that was thought before. They were published in the magazine Nature, and the use of advanced computer models run on NASA supercomputers was a big part of how they were found.

WHAT IS THE SOLAR DYNAMO PROCESS?

The method by which the sun's magnetic field is made is called the solar dynamo. It is a complicated system where the sun's magnetic field and the moving of plasma work together. This plasma flow changes with location and changes about every 11 years during the solar cycle. New research has created better models that accurately describe these interactions, which show that the magnetic field is created closer to the surface than earlier models had suggested.

HISTORICAL CONTEXT AND ADVANCES IN SOLAR OBSERVATION

The history of studying the sun and how it affects Earth goes back a long way. In the early 1600s, Galileo was the first person to use a lens to look at sunspots. There are darker, cooler spots on the sun's surface called sunspots. They are closely connected to the sun's magnetic action, such as solar flares and CMEs. With the help of current technology and computer modelling, our knowledge of these kinds of solar events has grown a lot.

MORE ABOUT SOLAR DYNAMO

Mechanism and Cycle: The Sun's magnetic field is created by the solar dynamo, which is powered by the flow of plasma inside the sun. This process goes through an 11-year loop called the solar cycle, during which the magnetic field changes its direction. These three things—solar spin, convection, and helical turbulence—work together to make the solar dynamo work. They are called the "α-effect" and the "Ω-effect."

MANIFESTATIONS OF SOLAR MAGNETIC ACTIVITY

Dynamo theory helps explain several things that happen when the sun's magnetism is active. Strong magnetic action has made dark spots appear on the Sun's surface. On the Sun's surface, sudden bursts of energy. A lot of plasma and magnetic fields are being pushed out of the Sun's atmosphere.

ANASUYA SENGUPTA

Wins Best Actress at Cannes

The 77th Cannes Film Festival gave Best Actress to Anasuya Sengupta for her part in "The Shameless." She is a very good actress from Kolkata. This win is important because it shows that Indian filmmaking is present and growing in importance around the world. It also shows how strong Indian women are in film.

THE FILM: 'THE SHAMELESS'

"The Shameless," directed by the Bulgarian Konstantin Bojanov, was shown at the festival in the "Un Certain Regard" part. The movie is about a woman named Renuka who runs away from a dirty brothel in Delhi. Renuka's relationship with her love interest, played by Omara Shetty, gets more complicated during her trip. The story ends with themes of strength and survival.

Anasuya Sengupta's Performance and Dedication

Anasuya's performance was deep and empathetic, and that it showed how hard her character worked and how strong she was. When she won the award, she gave it to the LGBTQ community and other underrepresented groups, calling for a more diverse and female-centered future in film.

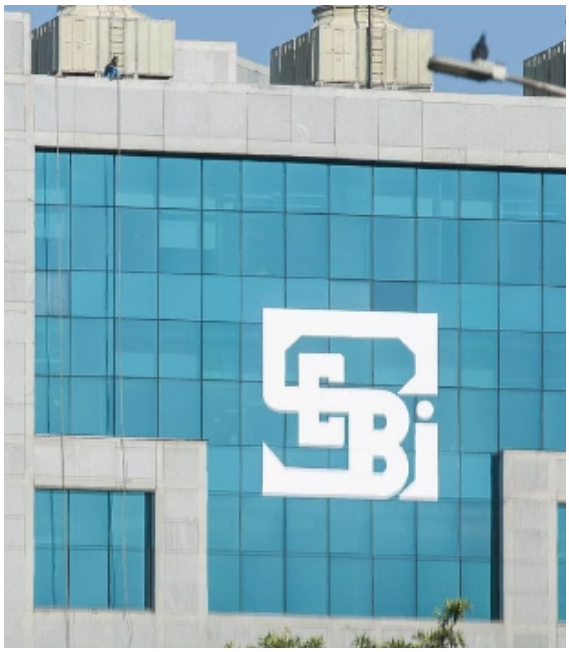
MORE ABOUT CANNES FILM FESTIVAL

The idea for the Cannes Film Festival to compete with the Venice Film Festival came up in 1939, but the festival didn't start until 1946, after the end of WWII. Before 1955, the Palme d'Or was called the Grand Prix. The festival only lets people who are invited see pictures that are artistically good. In 1968, Cannes didn't give out any awards because the event was stopped by protests by workers and students. In 1989, Steven Soderbergh won the Palme d'Or for "Sex, Lies, and Videotape." He was the youngest winner, at age 26. People are not allowed to take selfies on the red carpet at Cannes. In contrast to its early years, the festival does not accept films that are also available on streaming services to compete in its main competition.

SEBI CRACKS

DOWN ON GAMING APPS INVOLVED IN VIRTUAL TRADING

The Securities and Exchange Board of India (Sebi) is keeping a closer eye on fantasy games and virtual trading platforms that use real share prices to mimic stock trading. This action comes after a lot of like-minded apps became famous because more and more regular people are interested in trading stocks.



REGULATORY CRACKDOWN

Sebi has told stock exchanges and depositories to stop giving third-party apps that help with virtual trading access to real-time price data. The goal of this directive is to stop people from using data for financial gain on sites that aren't regulated. Sebi says that it is okay to use this data for educational and fun purposes, but it is illegal to link cash rewards to the outcomes of virtual portfolios, which is similar to "dabba trading."

LEGAL AND FINANCIAL IMPLICATIONS

The exchanges make money by processing trades and selling data feeds. Stock traders get these feeds for free so they can help their clients trade. Sebi's rules now say that sharing market data for things like schooling has to be put off for at least one day to stop it from being misused. Stock exchanges have also been told to change their legal deals to stop anyone from using live data feeds without permission.

FACTS ABOUT THE SECURITIES AND EXCHANGE BOARD OF INDIA (SEBI)

- The Securities and Exchange Board of India (SEBI) was established on April 12, 1988, and gained statutory powers on January 30, 1992, through the SEBI Act of 1992.
- SEBI is headquartered in Mumbai and is responsible for regulating the securities market in India.
- It responds to the needs of three primary groups: issuers of securities, investors, and market intermediaries.

INNOVATIONS AND MARKET IMPROVEMENTS

- In 2000, SEBI made Internet dealing possible, which made the securities market easier to get to and more efficient.
- Paper shares were thrown out when demat (dematerialized) trading started. This cut down on fraud by a large amount and made dealing easier.
- SEBI set up the National Institute of Securities Markets (NISM) in Mumbai so that people who work in the market could get training and licensing.

INVESTOR PROTECTION AND ENFORCEMENT

- SEBI improved safety for investors by creating the SCORES platform, which lets investors file complaints and keep track of them online.
- The group has the power to do raids and investigations to make sure people follow the rules and protect the purity of the market.
- These steps help make the stock market safer and more open, which boosts investor trust.

PAKISTAN REPORTS

THIRD POLIO CASE AMID TRANSMISSION CONCERNS

Pakistan has confirmed the third case of polio this year, showing that getting rid of the poliovirus is still hard. The most recent person to get sick is a 12-year-old girl from the Kili Malak Haqdad area of Balochistan's Killa Abdullah district. She has fever, body pain, puking, and is then paralyzed. Genetic analysis has shown that the virus is in the area that is sick. This new information shows that the transfer is still going on in important places like Karachi, Quetta, and Peshawar-Khyber. Even though there have been strong attempts to vaccinate people, these areas have become virus reservoirs.

HEALTH AUTHORITIES' RESPONSE

As a result of finding new cases and polio-positive samples in the environment, health officials are stepping up their vaccination efforts. The goal is to make kids' immune systems stronger, especially in places where viruses are always spreading.

CHALLENGES IN POLIO ERADICATION

After three years, polio has come back in Balochistan. This is a big defeat. The Technical Advisory Group in charge of polio eradication plans has a lot of work to do because there is a high risk of widespread transmission. This risk will only get worse in the summer when polio cases usually rise.

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FACTS ABOUT POLIOVIRUS

CHARACTERISTICS AND TRANSMISSION

- Poliovirus only infects humans and kids are most likely to get poliomyelitis from it.
- The virus can enter the nervous system through the mouth and feces path. It can also live in the gut and grow there.
- PV1, PV2, and PV3 are the three serotypes. PV1 is the most common and most dangerous.

CLINICAL MANIFESTATIONS AND VACCINATION

- 72% of people who get poliovirus don't have any symptoms, but serious cases can make people paralyzed.
- The number of cases of polio around the world dropped dramatically after the Salk (inactivated) and Sabin (oral live attenuated) vaccines were made available.
- These vaccines have been very important in stopping the disease and lowering the number of people who get polio around the world.

ERADICATION EFFORTS AND CURRENT STATUS

- Since it began in 1988, the Global Polio Eradication Initiative has cut the number of cases of polio by more than 99%.
- Even with all of these attempts, the virus can still live on in wild or "vaccine-derived" forms linked to immunodeficiency.
- Polio is still common in only two countries: Afghanistan and Pakistan.

CENTRE SANCTIONS

RS 21,253 CRORE TO TACKLE KERALA'S CRISIS

The Indian Central Government gave the state of Kerala a lot of money at the end of May 2024 to help it deal with its economic problems. The Minister of State for Electronics and Information Technology told everyone about this change in a public post on platform X. Up until December 2024, the Centre has let Kerala borrow up to Rs 21,253 crores.

DETAILS OF THE ECONOMIC CRISIS IN KERALA

Kerala has been having a lot of problems with its economy, like not paying its workers on time and stopping progress on many state projects. Employees of the Kerala State Road Transport Corporation (KSRTC) were hit hard by the economic downturn, which messed up their pay streams.

OBJECTIVES OF THE FINANCIAL ASSISTANCE

The approved borrowings are meant to boost Kerala's economy by making sure that salaries and pensions are paid on time, that important infrastructure projects like the Coastal Protection and the Mini Harbour Project are completed, and that marine activities are supported. Also, the process of hiring Coastal Police Officers (CPO) will be sped up, which will make the coast safer.

EXPECTED IMPACTS AND GOVERNMENT ACCOUNTABILITY

The money that was sent and the permission to borrow more is supposed to help Kerala's economy get better. People are hopeful that Kerala's economic stability and growth will get a lot better in the future now that the state government is focusing on dealing with these important problems and getting help from the national government.

MORE ABOUT ECONOMIC CRISIS IN KERALA

Kerala had problems with its economy, especially from 2017 to 2018, when the state's GDP growth was only 7.18 percent. Because about 36.3% of the state's income comes from remittances, it is vulnerable to changes in the world economy. More than $4.4 billion was lost in damage from the 2018 floods, which mostly affected crops and tourism. Even though Kerala had a lot of good social measures, its unemployment rate of 9.4% in 2017-18 was much higher than the national average. It hit 31.4% of GSDP in 2020, which shows that the state's finances are still under a lot of stress due to high welfare spending and slow industrial growth.

GOVERNMENT EXTENDS
ARMY CHIEF GEN MANOJ PANDE'S TENURE

The Appointments Committee of the Cabinet has decided that Army Chief Gen. Manoj Pande will stay in his job until June 30. The news came out on May 26, just one day before Gen. Pande was set to retire on May 31. This move is significant because it is the first time that a term has been extended in this way since Indira Gandhi, who was Prime Minister at the time, did it for Gen. G. G. Bewoor in the early 1970s.

HISTORICAL PRECEDENT

The increase in Gen. Pande's term follows a pattern set almost fifty years ago. During the Indira Gandhi government in the early 1970s, Gen. G. G. Bewoor's term was extended. Because of this earlier stretch, Lt Gen Prem Bhagat had to retire without ever being Army Chief, even though he was very well thought of.

WHAT ARE THE POLICIES AND RULES INVOLVED?

Rules 16A(4) of the Army Rules, 1954, say that the increase is okay. Following this rule lets an Army Chief stay on the job past the regular retirement age in certain situations, as decided by the Appointments Committee of the Cabinet.

GEN MANOJ PANDE'S BACKGROUND

The 29th Chief of the Army Staff, Gen. Manong Pande, took over on April 30, 2022, after Gen. MM Naravane retired. To his credit, he was the first general from the Corps of Engineers to lead the force. Gen. Pande was Vice Chief of the Army and in charge of the key Andaman and Nicobar Command before he became Chief of the Army. He went to the National Defence Academy and joined the Corps of Engineers, also known as "The Bombay Sappers," in December 1982.

DOT, TELCOS
DEVELOP MECHANISM TO BLOCK SPOOF OVERSEAS CALLS

Together with mobile operators, the Department of Telecommunications (DoT) has set up a new method to spot and block fake international calls that show Indian phone numbers. This step was taken because many people have complained about getting scam calls from people saying they were police officers, FedEx workers, or even officials from the Department of Telecom (DoT) and the Telecom Regulatory Authority of India (Trai).

WHAT IS SPOOF CALLS?

Spoof foreign calls are made from outside of India, but the caller's number is changed to look like it is from India. Criminals online have often used this trick to commit different crimes, like financial theft and pretending to be someone in charge.

WHAT ARE THE STEPS TAKEN BY THE DOT?

In order to fix this problem, the DoT has told telecom providers that they need to block these fake calls. Indian users can't get these fake calls with changed caller line identities (CLIs) because systems have been made to stop them. This system used to only block foreign calls that used fake Indian landline numbers, but it has now been expanded to include calls from mobile phones as well.

FURTHER SAFETY MEASURES AND USER PROTECTION

Along with blocking spoof calls, the DoT supports other safety-focused projects for telecom users as part of the larger Digital India goal. This includes places like the Sanchar Saathi site and the Chakshu facility where people can report messages they think are fake. Additionally, artificial intelligence is a very important part of these efforts because it helps to better identify and stop scams.

MORE ABOUT ARTIFICIAL INTELLIGENCE (AI) IN TELECOMMUNICATIONS

- AI can spot fraud in real-time by looking for trends that don't make sense.
- It automatically optimizes the network by changing settings to provide better service.
- AI makes predictive maintenance possible by predicting when technology will break down, which cuts down on downtimes.
- AI improves customer service by making virtual helpers and chatbots that are available 24 hours a day, seven days a week.
- Machine learning systems suggest personalized services to users, which makes them more interested.
- AI quickly translates and transcribes communications in multiple languages, which makes doing business around the world easier.
- It keeps an eye on the network equipment to stop data breaches.
- Robotic process automation powered by AI makes the bills and compliance processes more efficient.
- It makes better use of resources by figuring out how data traffic will move.
- AI improves route planning in network traffic to cut down on delays and traffic jams.
- These cutting-edge AI apps are changing the telecoms industry by making it more efficient, safer, and more customer-friendly.

ENVIRONMENTAL ACTIVISTS SUE NORWAY OVER ITS DEEP-SEA MINING PLANS

Norway recently agreed to a controversial plan to look for minerals on the ocean floor over an area bigger than Britain. This choice was made by Norway's parliament in January after a study paid for by the government found that such research would have little effect on the environment. Environmentalists have taken this to court, saying that the effect assessments were not thorough enough. They have taken their complaints to court in Oslo, saying that the project could have bad effects on the environment.

WHAT IS DEEP-SEA MINING?

Deep-sea mining is the process of getting minerals from the bottom of the ocean. There are three main types of mining: getting polymetallic nodules out of the ground, mining huge sulphide reserves on the seafloor, and taking cobalt crusts off of rocks deep underground. These minerals are very important for making many tech parts that are used in everyday things like cellphones and batteries for green energy sources. Deep-sea mining is good for the economy, but it causes big problems for the environment. The noise, vibrations, light pollution, and sediment plumes that come from it could mess up marine environments and hurt or bother marine life like corals and sponges.

THE RISE OF CLIMATE LITIGATION

Litigation over climate change has become an important way to hold governments and businesses responsible for what they do or don't do to stop climate change. The idea includes using the law to make people follow environmental rules and promises they make, like those in the Paris Agreement and other international agreements. From 884 cases in 2017 to over 2,180 by the end of 2022, the number of climate-related cases has gone up greatly around the world. Children, women, local communities, and Indigenous Peoples are just a few of the groups that are often involved in these cases.

NOTABLE CASES AND OUTCOMES

One important example of a winning climate lawsuit is the April decision by Europe's top human rights court, which sided with a group of elderly Swiss women who were suing their government for not doing enough to stop climate change. A judge in Montana, USA, said in August 2023 that the state government's approval of fossil fuel projects without thinking about how they would affect climate change violated the constitutional right to a healthy environment. This was another important case. Even though not all cases end the way people want them to, like when a young girl from Uttarakhand, India, had her claim thrown out in 2017, the trend of climate litigation shows that people around the world are putting more and more faith in legal solutions to deal with climate change problems.

VIRUPAKSHA TEMPLE COLLAPSE: KEY UPDATES

Rainfall caused the saalu mantap (pavilion) at the Virupaksha Temple in Karnataka's Hampi to collapse on May 21. Despite saying that repair work was already underway, the Archaeological Survey of India (ASI) said that this event made people worry about their efforts to protect the site.

HISTORICAL BACKGROUND

Although the Virupaksha Temple in the ruins of Hampi goes back to the 7th century, it became very famous during the Vijayanagara Empire in the 14th century. During the Sangama dynasty, the temple grew a lot and became a focal point for religious and cultural events. Massive gopurams, intricate carvings, and the centre sanctum with a Shiva lingam make it a great example of Dravidian architecture.

SIGNIFICANCE OF THE TEMPLE

It was an important part of South India's last great Hindu kingdom. The Virupaksha Temple is both a spiritual centre and a UNESCO-designated historical site as part of the Group of Monuments at Hampi. It is a landmark of the Vijayanagara Empire's artistic and cultural achievements.

CAUSE OF THE PAVILION COLLAPSE

Over time, the pavilion's stone pillars and base became weaker from being exposed to the elements, especially rain. The recent heavy rains showed that the structure would not last for years as expected, so it needs to be fixed right away.

CHALLENGES IN PRESERVATION

The repair process faces big problems with money, getting supplies, and finding skilled workers. The latest gift of Rs 8 crore from the Central government shows how expensive it can be to carry out such large-scale conservation projects. Keeping the temple complex's heritage and current needs in balance is also hard because people are still worshipping there and people are moving into the area. ASI is still committed to restoring and protecting the Virupaksha Temple, and they plan to do so in a methodical way. Their goal is to fix any recent damage and protect the temple's cultural history for future generations.

FACTS ABOUT VIRUPAKSHA TEMPLE

Historical Significance and Architecture

- The Virupaksha Temple in Hampi, Karnataka, is one of the oldest temples still in use in India. It was built around the year 700 AD and is dedicated to Lord Shiva.
- The Vijayanagara masters in the 14th century made big changes to it and made it bigger.
- The temple is famous for its tall gopura and elaborate carvings that show stories from Hindu mythology.

UNIQUE FEATURES AND ENGINEERING

- The dark room of the temple has a pinhole camera effect that projects an upside-down picture of the main gopura.
- The temple is a UNESCO World Heritage site and has architecture that has survived earthquakes. This shows how well the builders of Vijayanagara architecture understood locus and joints.
- These technical marvels show how advanced the building methods were in the past.

CULTURAL AND RELIGIOUS IMPORTANCE

- Traditional events, like weddings and the yearly chariot fair, are still celebrated at the Virupaksha Temple, which draws thousands of pilgrims and tourists.
- These celebrations keep the temple's religious and cultural importance alive.
- Traditions that still happen at the temple show how important it is to the community.

INDIA'S 'ALL WE IMAGINE AS LIGHT' WINS CANNES GRAND PRIX

In May 2023, the Cannes Film Festival showed some of the best movies from around the world. Indian producers got a lot of attention. Notably, All We Imagine As Light, director Payal Kapadia's first full-length movie, won the Grand Prix. This shows that India is becoming a bigger force in foreign film. As usual, the event was also a place where people, especially Bollywood stars dressed in stunning clothes, could show off their amazing fashion sense.

ACTIVITIES AT CANNES

People who go to the festival can look forward to many film openings and screenings, most of which happen at the Palais des Festivals et des Congrès. Many famous people and movie stars from around the world attend the famous red carpet events, but most people and the press are not allowed to. The following exchanges with the media and the many side events that happen around it make it even more exclusive and high-class.

MORE ABOUT CANNES FILM FESTIVAL HISTORY

The first Cannes Film Festival took place in 1946 in Cannes, France. It was supposed to happen in 1939 but had to be pushed back because of World War II. Jean Zay pushed for it to be made so that it could compete with the Venice Film Festival. In 1955, the Palme d'Or took the place of the Grand Prix. In 1968, the festival was cut short in the middle because of the political unrest caused by the French New Wave directors. The board of the festival is mostly French, which is unusual for an international event. After the war, the event only didn't happen in 2020 because of the COVID-19 pandemic. Even though the competition is seen all over the world, the main jury was all men until 2014. By 2022, only two female directors had won the Palme d'Or.

ZIG- ZIMBABWE

ROLLS OUT WORLD NEWEST AND GOLD-BACKED CURRENCY

Zimbabwe recently tried to get their economy back on track, which is why they made a new currency in April called the Zimbabwe Gold (ZiG). As a result of major economic problems and the failure of earlier currencies, this is the sixth attempt in 15 years to create a national currency.

BACKGROUND AND DEPLOYMENT

When the Zimbabwe dollar fell apart in 2009, during a time of hyperinflation that was believed to be 5 billion percent, a 100-trillion Zimbabwe dollar bill was printed. Extreme steps like these showed how bad Zimbabwe's economy was, which led to a system of multiple currencies with the U.S. dollar as the main currency. The government tried to fix these problems and make the local currency more stable by introducing the gold-backed ZiG. They hoped it would boost trust more than the ones that came before it.

PUBLIC PROMOTION AND RESPONSE

When it came out, the ZiG was promoted in a number of ways, such as through music and direct talks with government leaders and the party in power, ZANU-PF. Even with all of this advertising, the new currency had a hard time getting accepted, just like other currencies before it. People were still skeptical because of ongoing economic problems and a desire for the more stable U.S. dollar, which is still used across the country for big purchases like rent and school fees.

MEASURES TO ENFORCE USAGE

In a controversial move, the government has made people use ZiG by making it harder to trade currencies on the black market. Currency dealers who were dealing at rates higher than the official exchange were arrested by the authorities. This caused a lot of trouble and criticism from the economic community about how harsh these measures were. Even though people who trade in illegal currencies are jailed or fined a lot, most economists agree that these actions alone are not enough to restore trust in the new currency.

CONTINUING CHALLENGES

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SCIENTISTS DEVELOP

CHEAPER, SAFER LITHIUM-ION BATTERIES USING IRON

A new type of iron-based cathode material has been made thanks to recent study led by Oregon State University. This discovery could lead to the creation of batteries that are safer, cheaper, and last longer, especially for electric cars (Evs).

ADDRESSING MATERIAL COST AND SCARCITY

Traditional lithium-ion batteries depend a lot on cobalt and nickel, which are both expensive and hard to find. Because batteries need expensive and hard-to-find metals, the cost of making them is very high. In fact, this is responsible for up to half of the costs of making lithium-ion cells. Too much use of these resources makes people worry about a future lack, which could make it hard to make batteries that need these metals.

IRON-BASED CATHODE MATERIAL

A group of researchers at Oregon State University, have made a cathode material out of iron, which is easy to find and cheap (less than a dollar per kilogram). Researchers made iron salts that can store and release energy by mixing certain chemicals with iron powder, lithium fluoride, and lithium phosphate. This change makes iron more reactive, which makes the cathode's energy density higher than that of the most advanced materials used in EVs right now.

COST-EFFECTIVENESS AND SUSTAINABILITY

It's possible that this new iron-based cathode material is not as cost-effective as cathodes made of nickel and cobalt. The fact that iron is easy to get means that it can be used in a more environmentally friendly way, since it doesn't run out as quickly as cobalt and nickel do. It's also not necessary to change other parts of batteries, like anodes or production technology, in order to add this new material to current battery systems.

IMPLICATIONS FOR ELECTRIC VEHICLE MANUFACTURING

With the launch of this iron-based cathode material, it might become a lot cheaper to make electric cars. This new development could speed up the use of electric cars, which would help cut down on carbon emissions and encourage the use of renewable energy sources. Using this kind of technology is a big step forward in the search for new battery ideas that balance cost, performance, and effect on the environment.

NASA LAUNCHES

SATELLITE PREFIRE TO MONITOR AND MITIGATE CLIMATE CHANGE

The urgent global problem of climate change continues to call for new scientific discoveries and technological advances. NASA's PREFIRE (Polar Radiant Energy in the Far Infrared Experiment) mission began on May 25. This was a big step toward better climate prediction and knowledge.

LAUNCH DETAILS AND MISSION OBJECTIVES

Launch Complex 1 in Māhia, New Zealand, was used to send two small CubeSats into space on Rocket Lab's Electron rocket. The job of these satellites is to measure how much heat the Earth's polar parts give off. The North and South Poles are important parts of the world climate system but aren't seen as much because they are so cold. The infrared technology on the PREFIRE satellites will directly measure how much heat is leaking into space from above the Arctic and Antarctic. The present climate models are based mostly on theoretical predictions rather than direct observations, so this data is very important.

IMPLICATIONS OF PREFIRE FINDINGS

The information gathered by the PREFIRE mission should help improve models already in use to better understand how polar ice melts, sea ice loss, and the Earth's general energy balance. We need this kind of information to figure out how the poles affect weather trends around the world and to predict how the sea level will rise. Many areas, like farmland, fisheries, and coastal management, will benefit from this better modeling ability, which will help them react to changing environmental conditions.

MORE ABOUT NASA PREFIRE MISSION

MISSION OVERVIEW

- The NASA PREFIRE (Polar Radiant Energy in the Far Infrared Experiment) mission is scheduled for launch in 2023.
- PREFIRE will deploy two CubeSats into orbit to study Earth's energy budget in the far-infrared spectrum.
- This mission aims to measure polar far-infrared radiation, crucial for understanding climate processes.

SCIENTIFIC OBJECTIVES

- PREFIRE targets the largely unexplored wavelengths between 15 and 100 microns.
- These wavelengths are significant for their role in polar regions' cloud and surface energy processes.
- The mission's data will provide insights into polar far-infrared radiation, which has been under-studied until now.

NATO BORDER

NATIONS PLAN 'DRONE WALL' AGAINST RUSSIA

Six NATO countries—Finland, Norway, Poland, Estonia, Latvia, and Lithuania—are planning to build a coordinated drone defence system because of increased security worries and tensions along their borders with Russia. The goal of this project, which is often called the "drone wall," is to make the border safer from possible threats like military provocations and drug trafficking.

CONTEXT AND BACKGROUND

The idea for the drone wall came about during ongoing wars, like the one in Ukraine, and claims that Russia was using "hybrid warfare" tactics. Hybrid warfare uses both traditional military force and non-military tactics, like cyberattacks and spreading false information. This makes it hard to directly blame a state for the actions. The need for this kind of defence has been made clear by repeated cases of GPS jamming, sabotage, and other unfriendly actions that NATO believes are Russian attempts to make neighbouring countries less stable.

IMPLEMENTATION OF THE DRONE WALL

All NATO countries that border Russia will be covered by the planned drone wall system, which will go from Norway to Poland. After talking with her peers from the other countries involved, Lithuanian Interior Minister Agne Bilotaite brought up the plan. It is planned that security drones and technologies that stop drones will work together in the system to keep the borders safe. People think these steps will allow for real-time tracking and a quick response to any threats.

TECHNOLOGICAL AND STRATEGIC SIGNIFICANCE

Strategic use of drones and counter-drone systems is seen as important for staying ahead of possible attackers in terms of technology. Estonia's Interior Minister Lauri Laanemets talked about how drone technology is changing the way wars are fought, which was especially clear in the conflict in Ukraine. Drone technologies are meant to improve defences as well as protect against non-traditional forms of fighting and protect sovereignty.

BROADER NATO SUPPORT AND INITIATIVES

This regional project fits in with NATO's larger strategy goal of making member countries' air and missile defences stronger. Recently, Poland joined the European Sky Shield Initiative. The goal is to build an integrated air defence system like Israel's Iron Dome. This shows that the Union is serious about protecting its territories from drones and missiles.

MORE ABOUT NATO-RUSSIA BORDER DEFENSE

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MILITARY INVESTMENTS AND ENHANCEMENTS: Several NATO member states have spent a lot of money on their militaries to make their border defences stronger against Russia. Since Russia took over Crimea in 2014, Poland has significantly raised the amount it spends on defence. In 2004, Estonia, Latvia, and Lithuania joined NATO, making the eastern border of the alliance stronger.

ADANI PORTS

BECOMES FIRST ADANI GROUP COMPANY TO JOIN SENSEX

The Adani Group's Adani Ports and Special Economic Zone Ltd (APSEZ) will be added to the Sensex on the Bombay Stock Exchange (BSE) on June 24. With this important step forward, APSEZ is the first company under the Adani Group's control to join the Sensex, replacing the technology firm Wipro. This happened after APSEZ and another Adani company, Adani Enterprises, were added to the National Stock Exchange's (NSE) Nifty index. Adani prices went up after a rough time when they dropped a lot because of claims by Hindenburg Research that there were financial problems, which Adani has denied.

CRITERIA FOR SENSEX INCLUSION

There are strict rules about which companies can be in the Sensex. This is done to make sure that only financially stable and easily sold companies are in the index. Some of the things that are looked at are having been listed on the BSE for at least six months, trading regularly, and having a swap contract. A company must also be in the top 75 in terms of market capitalization and have a free-float market capitalization of at least 0.50%. Companies are looked at every six months, in June and December, to see if they meet the qualifying requirements for reconstitution.

ABOUT ADANI ENTERPRISES

Gautam Adani started Adani Enterprises in 1988 as a business that traded goods. It paved the way for the Adani Group to grow into the energy, logistics, and agribusiness industries. The company launched India's first private rail and first supercritical power plant. Building the Carmichael Coal Mine in Australia and the Mundra Port in India are two important projects. It is working on a lot of important infrastructure projects of 2023, like building the Navi Mumbai International Airport. Notably, in 2022, Forbes ranked Gautam Adani as the third richest person in the world.

FOUR EUROPEAN UNION

BANKS SEEK RBI NOD FOR CLEARING MODEL

Four big European banks—Credit Agricole, Societe Generale, Deutsche Bank, and BNP Paribas—are asking the Reserve Bank of India (RBI) to let them use a third-party clearing model to keep buying and selling Indian government bonds and derivatives. As a result of problems with audit and inspection rights, the European Securities and Markets Authority (ESMA) took away the Clearing Corporation of India's (CCIL) recognition.

IMPASSE OVER AUDIT OVERSIGHT RIGHTS

The conflict started when the RBI wouldn't let the ESMA audit and check the CCIL, which is a key part of India's financial system for government bonds and derivatives. Because of this refusal, the ESMA stopped recognizing the CCIL in October 2022. After October 2024, European banks will not be able to do business with it.

THE PROPOSED THIRD-PARTY TRANSACTION MODEL

To get around the impasse, the European banks involved suggested a third-party plan in which transactions could be settled through Indian banks such as the State Bank of India and ICICI Bank. This agreement would help keep foreign capital coming in and make sure that European rules are followed.

CHALLENGES AND CLIENT CONFIDENTIALITY CONCERNS

One of the biggest problems with using the third-party approach is keeping client information personal. Safekeeping private data and securities for clients is what European banks do. Transferring clearing to a third-party bank could mean sharing client information, which raises worries about privacy and data security.

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FACTS ABOUT THE EUROPEAN SECURITIES AND MARKETS AUTHORITY (ESMA)

A. ESMA plays a crucial role in the

B. architecture of financial regulation within the EU, working alongside other European Supervisory Authorities (ESAs) like the European Banking Authority (EBA) and the European Insurance and Occupational Pensions Authority (EIOPA), as well as the European Systemic Risk Board (ESRB).

C. Its main goals are to safeguard the stability of the European Union's financial system, ensure the integrity, transparency, efficiency, and orderly functioning of securities markets, and improve investor protection.

D. ESMA develops a single rulebook for EU financial markets, ensuring consistent regulation and supervision.

D. It monitors and assesses risks to investors, markets, and financial stability.

D. It contributes to the development of common market standards and practices, enhancing cross-border cooperation and coordination.

FIDE UNVEILS BECKNGPT

AN AI AGENT COMBINING CHATGPT AND BECKN PROTOCOL

An important part of e-commerce innovation is the Foundation for Interoperability in the Digital Economy (FIDE). They just released a new AI agent called Beckn Generative Pre-trained Transformer (BecknGPT). This AI agent is made to handle business deals on its own, using Open AI's ChatGPT model to work within the Open Network for Digital Commerce (ONDC) framework.

UNDERSTANDING BECKNGPT AND ITS CAPABILITIES

BecknGPT's technology is based on the Beckn protocol, which is a set standard that makes transfers between networks easy. You can use this protocol to do deals with BecknGPT both within the same network and different networks. In this case, it can easily handle transactions from a retail network to an open electricity network. This interoperability is a big step toward a digital commerce world that works better and is more integrated.

BROADER IMPACT ON E-COMMERCE

The development of BecknGPT opens up many ways to get rid of the problems that have usually come with digital transactions. BecknGPT wants to make ecommerce more accessible to everyone by lowering the hurdles to digital access and getting rid of language barriers. Many people, from individuals to small businesses, will likely gain from this change. It will make services easier to get to and more efficient in many areas, such as healthcare, retail, and education.

WHAT IS BECKN PROTOCOL?

The Beckn Protocol is an open, decentralized standard that lets digital sites and apps talk to each other. It's made to work regardless of the technology, industry, or location, so it can facilitate free and open trade. Beckn was mainly made in India to make internet commerce more accessible to everyone. It works with a lot of different apps, from movement to healthcare. The system uses open APIs that don't make any rules, so it encourages a collaborative model instead of a competitive one. Key features protect user privacy by encrypting data from end to end and keeping users anonymous. The Beckn Foundation also oversees the company's growth and makes sure it stays true to its core values.

INDIAN ARMY PARTNERS

WITH IOCL FOR GREEN AND SUSTAINABLE TRANSPORT SOLUTIONS

In recent months, the Indian Army has taken big steps toward using environmentally friendly and sustainable transportation in its activities. A relationship with the Indian Oil Corporation Limited (IOCL), which was made official by signing a Memorandum of Understanding (MoU), is a big part of this project.

DETAILS OF THE MOU AND PARTNERSHIP

Both the Army Chief, General Manoj Pande, and the Chairman of IOCL, Shrikant Madhav Vaidya, were there when the deal was finally signed. The main goal of this MoU is to encourage new ideas and use clean transportation methods. A real result of this relationship was that the Army got a hydrogen fuel cell bus at a special event. People are calling this partnership a big deal because it's the start of a "mutually beneficial partnership."

PREVIOUS STEPS TOWARDS GREEN ENERGY

This green transportation project is not the first time the Indian Army has tried to be more environmentally friendly. The Indian Army set a standard when it signed another MoU with the National Thermal Power Corporation Renewable Energy Ltd. on March 21, the previous year. According to the first deal, green hydrogen-based microgrid power plants will be put up along India's northern borders. A 200-kilometer green hydrogen microgrid is being built as part of a pilot project at Chushul. This will provide clean energy 24 hours a day to troops stationed in difficult terrain and harsh weather.

FACTS ABOUT INDIAN OIL CORPORATION LIMITED (IOCL):

- Indian Oil Corporation Limited (IOCL) was founded in 1959 and is India's largest commercial oil company.
- IOCL ranks 151st on the Fortune Global 500 list as of 2020.
- The company operates 11 out of India's 23 refineries.
- IOCL has an extensive network of over 47,800 customer touchpoints.
- In 2020, IOCL launched India's first hydrogen-spiked compressed natural gas (HCNG) plant.
- IOCL is targeting the integration of 260 MW of renewable energy by 2024.
- IOCL introduced India's first electric vehicle charging station in Nagpur in 2017.
- The company sponsors many sports, including cricket, hockey, and adventure sports.
- IOCL actively supports the Indian Olympic Association.

INDIA'S $48 BILLION

INPUT SUBSIDY FOR POWER AND AGRICULTURE RAISES CONCERNS

At a meeting of the World Trade Organization (WTO) in 2022–2023, the US, EU, UK, Australia, Canada, Brazil, New Zealand, and Japan all voiced worries about India's subsidies for farmer inputs. Approximately $48 billion in handouts were given to India to help pay for things like power, irrigation, and fertilizer.

BACKGROUND OF THE DISPUTE

The US drew attention to how big these handouts were by saying they were more than twice as much as all the trade-distorting aid India had reported in the previous fiscal year. The 2015-16 Agriculture Census found that 99.43% of farm holdings in India were owned by people with low incomes or few resources. These benefits are important because they help these farmers in important ways.

WTO RULES AND FLEXIBILITIES FOR DEVELOPING COUNTRIES

Under Article 6.2 of the WTO's Agreement on Agriculture, emerging countries like India are given more freedom to help their own people by giving subsidies for things like fertilizers, irrigation, and power. There are limits on other types of farm support, like price and income support, which is part of the Aggregate Measurement of Support (AMS). But these benefits don't have those limits. For developed countries, the AMS limits are set at 5% of all agricultural products, and for developing countries, they are 10%.

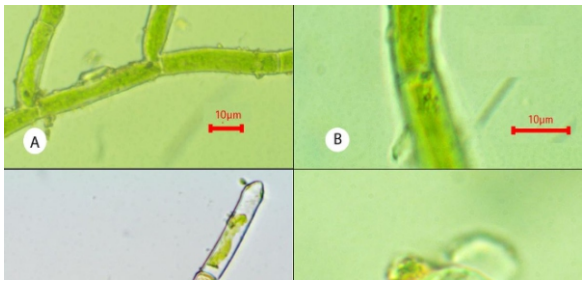
INDIA'S JUSTIFICATIONS AND INTERNATIONAL REQUEST FOR TRANSPARENCY

India said that inflation and growing fertilizer costs were the main reasons for its higher subsidy spending. India also claimed that it had given the WTO all the information it needed about subsidies, in response to calls for more openness from other countries.

WHAT IS AGGREGATE MEASUREMENT OF SUPPORT (AMS)?

The Aggregate Measurement of Support (AMS) is a key part of the World Trade Organization's (WTO) Agreement on Agriculture and is used in international trade in agriculture. AMS figures out how much help a country gives its agricultural goods, including subsidies. Its goal is to limit the amounts of home support that hurt trade by making countries gradually lower their AMS. Some countries, like emerging ones, are exempt and can have higher AMS limits. When the AMS does its estimates, it leaves out supports that don't change trade or only slightly change it, like money for research or environmental projects. Instead, it focuses on measures that change market prices or quantities.

NEW ALGAL SPECIES DISCOVERED IN KERALA'S WESTERN GHATS GHATS BY PHYCOLOGISTS



BACKGROUND OF THE DISCOVERY

The researchers Merin Grace Jiji, Binoy T. Thomas, and Thomas V.P. found this new species of algae in the forests of the Kumbhavurutty region in the Kollam district. They have called it Oedocladium sahyadricum. The Western Ghats have unique weather and soil conditions that make it possible for a wide range of land microalgae to grow.

CHARACTERISTICS OF OEDOCLADIUM SAHYADRICUM

Several things make oedocladium sahyadricum unique. The algae were first recognized because they are dioecious and live on land. They have an advanced operculum and oval oogonium and oospore for reproduction. It grows in wet soil as a soft green mat, and as it gets older, its colour changes to a yellowish-green and predominantly flourishes during the rainy season.

ABOUT THE WESTERN GHATS GHATS

- The Western Ghats Ghats stretch approximately 1,600 km along India's west coast.
- They are older than the Himalayas.
- Recognized as one of the world's eight 'hottest hotspots' of biological diversity.
- They harbor approximately 7,402 species of flowering plants, 139 mammal species, 508 bird species, and 179 amphibian species.
- Many species found in the Western Ghats are unique to the region.
- The Ghats significantly influence India's monsoon weather patterns by intercepting the rain-laden monsoon winds.
- The highest point is Anamudi Peak in Kerala, at 2,695 meters.
- The 'Valley of Flowers' in the Western Ghats is famed for its seasonal blooms of endemic alpine flowers.
- UNESCO declared the Western Ghats Ghats a World Heritage site in 2012 due to its exceptional biodiversity and endemic species.

CET AND IIT MADRAS

SECURE PATENT FOR NOVEL VOLTAGE DEVICE

THE INDIAN INSTITUTE OF TECHNOLOGY MADRAS (IIT MADRAS) AND THE COLLEGE OF ENGINEERING Thiruvananthapuram (CET) have made big steps forward in electrical measurement technology by getting a patent for a new device that measures voltage without touching it. This new invention is a major step forward in the field of electrical engineering.

OVERVIEW OF THE PATENT

The Indian Patent Office awarded the patent to a project labeled "An instrumentation system with a fully non-intrusive probe for AC voltage measurement."Boby George, who is Head of the Department of Medical Sciences and Technology at IIT Madras, and P.S. Shenil, who is an Associate Professor in the Department of Electrical and Electronics Engineering at Government Engineering College, Barton Hill, worked together on this project. It's important to note that Dr. Shenil has worked with CET before.

TECHNICAL DETAILS OF THE DEVICE

The patented device accurately measures AC voltage without having to remove the insulation from live wires, which is different from other methods that need to be in direct touch with the electrical system. A sensor tool, a measurement unit, a processor, and a display unit make up the main parts of this system. The probe is very creative; it has a cylinder-shaped electrode that is split into two hinged half-circle rings. This lets it be opened up and clamped around a wire like a current transformer.

APPLICATIONS AND IMPLICATIONS

This technology creates a better, non-intrusive way to measure voltage, which lowers the risk that comes with using older methods. It can do more than just measures. It can also connect to Internet of Things (IoT) devices, smart energy meters, and smart home systems. It can also be used to maintain electrical tools and industrial machinery, which could lead to higher safety standards and better efficiency in many areas.

WHAT IS A CONTACTLESS VOLTAGE MEASUREMENT DEVICE?

Contactless voltage measurement devices, also known as non-contact voltage testers (NCVTs), detect electrical voltage without direct contact with conductors. By using capacitive coupling from the target wire to the sensor, they keep people safe by using lights or sounds to show when voltage is present. Most NCVTs are pen-shaped, which makes them easier to carry and use in small places. They can tell the difference between AC and DC power and work by sensing changes in electromagnetic fields. New features in NCVTs let you change the level of sensitivity so they can precisely find other electronic devices.

INDIAN AIR FORCE

TESTS BHISHM PORTABLE HOSPITAL IN AGRA

On May 14, 2024, the Indian Air Force conducted field tests of the Arogya Maitri Cube- BHISHM portable hospital by performing an airdrop in Agra, Uttar Pradesh. This test marked the first occasion that the Indian Air Force deployed this innovative medical solution, aimed at enhancing rapid medical response capabilities during emergencies.

PROJECT BHISHM

BHISHM portable cubes are integral to the "Project BHISHM" or Bharat Health Initiative for Sahyog, Hita, and Maitri. This project is designed to manage up to 200 casualties simultaneously, highlighting its focus on swift, expansive medical care in disaster scenarios.

Capabilities of BHISHM Aid Cube

The Aid Cube is equipped with cutting-edge tools such as Artificial Intelligence (AI) and data analytics which assist in effective coordination and real-time monitoring, thereby optimizing the management of field medical services. Comprising 72 easily transportable components, these cubes can be moved by hand, cycle, or potentially by drones, offering exceptional versatility.

DEPLOYMENT AND APPLICATION

In addition to being air-droppable, the BHISHM cubes are robust, waterproof, and lightweight, enabling quick deployment that can be completed within 12 minutes. This rapid deployment capability ensures that the cubes can be efficiently used in a variety of emergency situations, including mass casualty incidents (MCIs).

PREVIOUS DEPLOYMENT AND FUTURE POTENTIAL

Earlier in the year, during the Pran Pratishtha ceremony on January 22 in Ayodhya, two Arogya Maitri Disaster Management Cube-BHISHM units were deployed. This prior deployment underlined the unit's practical application and readiness to bolster medical preparedness and response efforts during significant public events. The successful testing and potential future implementations of the BHISHM cubes signify a significant step forward in India's disaster response and health care management strategies, ensuring rapid medical aid is available anywhere when needed.

TCS LAUNCHES
AI CENTER OF EXCELLENCE IN PARIS

PREVIOUS DEPLOYMENT AND FUTURE POTENTIAL

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OBJECTIVE OF THE AI COE

The new AI Centre in Paris aims to explore how AI can enhance business efficiencies and tackle societal issues. TCS stated that the Centre will concentrate on three main areas:

- Brain-computer interface technology.
- Infusing empathy into machine interactions.
- Expanding the use of AI in the fields of arts and culture.

STRATEGIC LOCATION IN FRANCE

The AI CoE will be located in La Defense, Paris, known for its vibrant economic and cultural activities. This location choice leverages France's renowned expertise in design and engineering, benefiting from its rich culture reflected in various sectors including fashion and luxury. The Paris Centre will become one of the seven 'TCS PacePorts' globally, which serve as hubs for innovation.

PARTNERSHIPS AND TALENT DEVELOPMENT

As per TCS, this Centre will not only focus on technology but also on nurturing talent. The approach includes deepening partnerships with local universities, startups, and research centres. Moreover, TCS is planning to hire new talent and offer internships and collaborative projects with educational institutions to support this initiative.

MORE ABOUT BRAIN-COMPUTER INTERFACE

Brain-computer interfaces (BCIs) enable direct communication between the brain and external devices, often used for assisting the disabled. Recent developments allow control of devices through neural implants interpreting brain signals. Innovations like the Stentrode, implantable without open-brain surgery, are pioneering less invasive methods.

BCIs extend to neurogaming, where players control games via cerebral activity. Research also explores using BCIs for rehabilitation post-stroke, enhancing synaptic plasticity. Ethical debates arise around privacy and mental integrity, accentuating the necessity for robust security measures to protect brain data from unauthorized access.

MORE ABOUT HUMAN-CENTRIC AI

Human-centric AI prioritizes ethical standards and user welfare, focusing on fairness, transparency, and accountability. This approach ensures AI systems enhance human capabilities without replacing them, maintaining human oversight. Ethical guidelines vary globally; however, initiatives like the EU's AI Act exemplify regulation attempts.

THREE INDIAN LITERARY WORKS ADDED TO UNESCO'S MEMORY OF THE WORLD REGISTER

UNESCO's Memory of the World (MOW) program has recently added three Indian literary works – Ramcharitmanas, Panchatantra, and Sah dayaloka-Locana, to its Asia-Pacific Regional Register. This took place during the tenth meeting of the Memory of the World Committee for Asia and the Pacific (MOWCAP), held in Ulaanbaatar, Mongolia.

THIS MARKS THE FIRST SUCCESSFUL NOMINATION BY INDIA SINCE THE INCEPTION OF MOWCAP IN 2004.

ABOUT THE INCLUDED TEXTS

Ramcharitmanas, written by Goswami Tulsidas, is a revered epic read extensively across Southeast Asia. Its narratives resonate well beyond the Indian borders, reaching audiences in Cambodia, Thailand, Sri Lanka, and Indonesia.

Panchatantra's fables impart universal moral lessons, while Sah dayaloka-Locana, rooted in 15th-century Kashmir scholarly work, is celebrated for its aesthetic contributions.

MEMORY OF THE WORLD PROGRAMME

Launched by UNESCO in 1992, the Memory of the World programme aims to safeguard the documentary heritage of humanity against collective amnesia. It promotes the preservation, protection, and dissemination of valuable archival holdings and library collections worldwide.

The programme helps in recognizing and maintaining records of heritage of significant importance at international, regional, and national levels, facilitating research, education, and preservation.

Global and Regional Registrations

As of May 2023, there are 494 inscriptions globally on the International Memory of the World Register. The MOWCAP specifically focuses on documents that highlight achievements in literature, genealogy, and science in the Asia-Pacific region. In its 2024 cycle, MOWCAP recognized contributions from various Asian countries, highlighting key regional literary traditions and scientific discoveries.

INDIA PROPOSES
DIGITAL COMPETITION BILL, 2024 AGAINST TECH GIANTS

The government has proposed the Digital Competition Bill, 2024 taking a clue from European regulatory frameworks This draft law aims to regulate the operations of major technology firms such as Google, Facebook, and Amazon, ensuring they do not misuse their dominant positions.
Akin to the European Union's Digital Markets Act (DMA), this proposal seeks to prevent these corporations from favouring their services over competitors' and misusing data to benefit their various business segments.

KEY PROPOSALS OF THE DIGITAL COMPETITION BILL

The key proposals of the bill are as follows:

Predictive Regulation: *The Bill introduces a proactive regulatory approach (ex-ante), which anticipates and prevents anti-competitive practices before they occur, unlike the reactive (ex post) framework under the current Competition Act, 2002*

Significant Entities: *The Bill proposes identifying Systematically Significant Digital Enterprises (SSDEs) based on criteria like turnover, user base, and market influence. These SSDEs will be restricted from certain practices such as self-preferencing and anti-steering.*

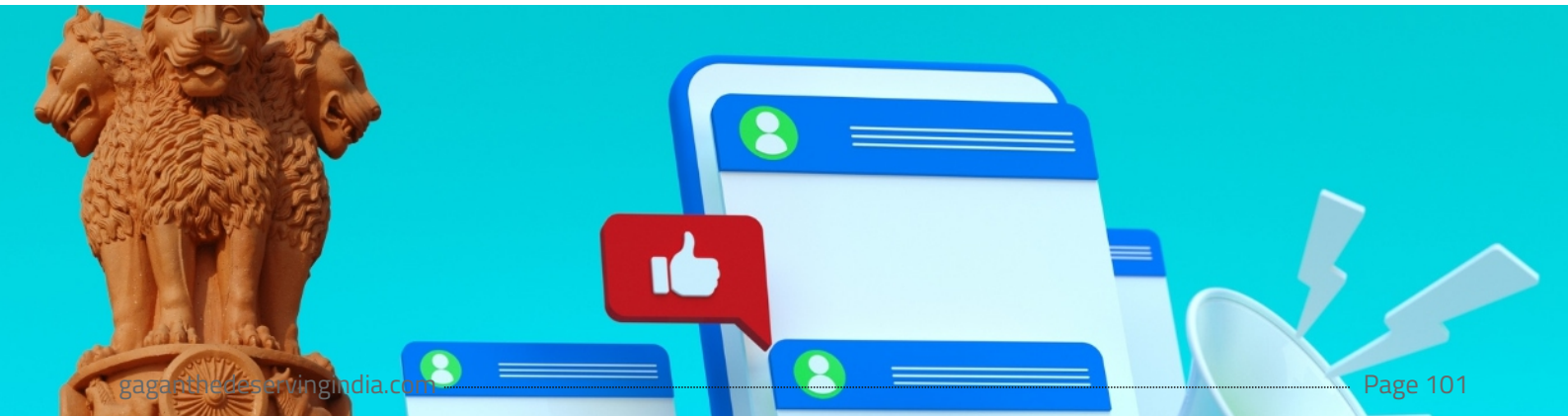
Associate Digital Enterprises (ADEs): *The legislation also plans to regulate ADEs which benefit from data shared within their group companies, ensuring that their operations do not undermine competitive practices.*

CRITICISM AND INDUSTRY CONCERNS

The proposed Bill has faced criticism primarily from large tech corporations, arguing that the stringent rules could impose heavy compliance burdens and stifle innovation. Concerns about arbitrary decision-making by the Competition Commission of India (CCI) and potential impacts on platform-based small businesses have also been highlighted.

FOSTERING DIGITAL COMPETITION

Government officials advocate for the Bill by pointing to a history of anti-competitive behaviour by big tech firms and the need for a framework that can more effectively manage the digital market's dynamics.

MORE ABOUT DIGITAL MARKETS ACT (DMA)

The Digital Markets Act (DMA) is a significant legislative framework adopted by the European Union designed to promote competition in the digital market. Established in 2022, it specifically targets large online platforms, termed as "gatekeepers," which include companies like Google, Apple, and Facebook.
The DMA restricts self-preferencing practices and mandates interoperability of messaging services. It also enforces data portability, making it easier for users to take their data to other services. Critically, the DMA imposes fines up to 10% of global turnover for non-compliance, displaying its stringent regulatory approach. This Act aims to enhance consumer choices and foster a fair, transparent digital economy.