

THE DESERVING INDIA

# CURRENT AFFAIRS

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# Global India AI Summit 2024



## Why in news?

The Global India AI Summit 2024, organized by the **Ministry of Electronics and Information Technology**, will be held on July 3-4, 2024, in New Delhi. The summit underscores the Government of India's unwavering commitment to the responsible development, deployment, and adoption of artificial intelligence. The event aims to foster collaboration and knowledge exchange among global AI stakeholders, ensuring the ethical and inclusive growth of AI technologies in India.

## Key Objectives

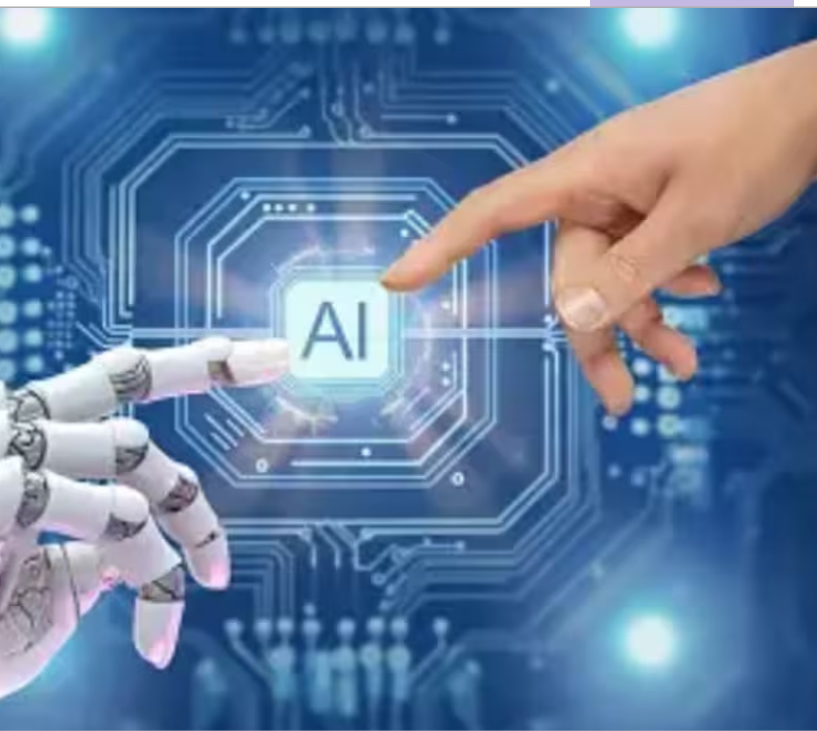
The summit is designed to bring together leading international AI experts from science, industry, civil society, governments, international organizations, and academia. The primary objectives are to foster collaboration, share insights on key AI issues and challenges, and ensure the ethical and inclusive development of AI technologies. Through this summit, India aims to establish itself as a global leader in AI innovation, ensuring that the benefits of AI contribute significantly to the nation's socio-economic development.

## India's Role

As the lead chair of the Global Partnership on Artificial Intelligence (GPAI), India will host member countries and experts to advance GPAI's commitment to safe, secure, and trustworthy AI. This leadership role emphasizes India's dedication to fostering global collaboration in AI and highlights its aspiration to be at the forefront of AI innovation on the world stage.

## Focus Areas

The summit will focus on several critical areas of AI development, including Compute Capacity, Foundational Models, Datasets, Application Development, Future Skills, Startup Financing, and Safe AI. Each of these areas is pivotal in building a robust AI ecosystem in India and ensuring the technology's benefits are widely accessible.



**IndiaAI Mission** The IndiaAI Mission aims to build a comprehensive ecosystem that fosters AI innovation. The mission's goals include democratizing computing access, enhancing data quality, developing indigenous AI capabilities, attracting top AI talent, enabling industry collaboration, providing startup risk capital, ensuring socially impactful AI projects, and promoting ethical AI. This mission drives responsible and inclusive growth of India's AI ecosystem through various strategic initiatives.

### Key Pillars

**IndiaAI Compute Capacity** The objective is to establish a scalable AI computing ecosystem with over 10,000 GPUs through public-private partnerships. An AI marketplace will be developed to provide AI as a service and pre-trained models, acting as a central hub for essential AI resources.

**IndiaAI Innovation Centre** This center focuses on developing and deploying indigenous large multimodal models (LMMs) and domain-specific foundational models. These models will cater to the unique needs of India's diverse industries and sectors, fostering innovation and addressing specific industry challenges.

**IndiaAI Datasets Platform** The platform aims to streamline access to high-quality non-personal datasets for AI innovation. A unified data platform will be provided, offering seamless access to Indian startups and researchers, aiding in the development of robust AI models.

**IndiaAI Application Development Initiative** This initiative promotes AI applications in critical sectors by addressing problem statements from Central Ministries, State Departments, and other institutions. The focus is on developing impactful AI solutions for large-scale socio-economic transformation.

**IndiaAI FutureSkills** The objective is to reduce barriers to AI education by increasing AI courses at various academic levels and establishing Data and AI Labs in Tier 2 and 3 cities. This ensures a steady pipeline of skilled AI professionals nationwide, supporting the growth of India's AI ecosystem.

**IndiaAI Startup Financing** This pillar supports deep-tech AI startups with streamlined access to funding. By providing risk capital and financial support, the mission aims to nurture a vibrant ecosystem of AI startups, driving technological advancements and economic growth.

**Safe & Trusted AI** Ensuring responsible AI development is a key objective, achieved through implementing Responsible AI projects, developing indigenous tools and frameworks, and establishing guidelines for ethical, transparent, and trustworthy AI technologies. This initiative ensures that AI technologies are developed and deployed in a manner that is safe and trustworthy.

# Special Campaign for Family Pensioners' Grievances

## Why in News?

The Ministry of Personnel, Public Grievances and Pensions, is launching a month-long special campaign for the effective redressal of family pensioners' grievances. This initiative will run from July 1-31, 2024, involving 46 Ministries/Departments with the aim of significantly reducing the pendency of such grievances.



# Sankhyiki Portal

## Why in News?

The Ministry of Statistics and Programme Implementation (MoSPI) has launched the eSankhyiki portal, aimed at enhancing user experience and ease of data access. This initiative aligns with the Ministry's commitment to the integrated development of the national statistical system in tune with global statistical practices and data dissemination standards.



## Objective

The primary objective of the eSankhyiki portal is to establish a comprehensive data management and sharing system that facilitates the ease of dissemination of official statistics in the country. The portal provides real-time inputs for planners, policymakers, researchers, and the public at large, supporting evidence-based decision-making processes.

**Safe & Trusted AI** Ensuring responsible AI development is a key objective, achieved through implementing Responsible AI projects, developing indigenous tools and frameworks, and establishing guidelines for ethical, transparent, and trustworthy AI technologies. This initiative ensures that AI technologies are developed and deployed in a manner that is safe and trustworthy.

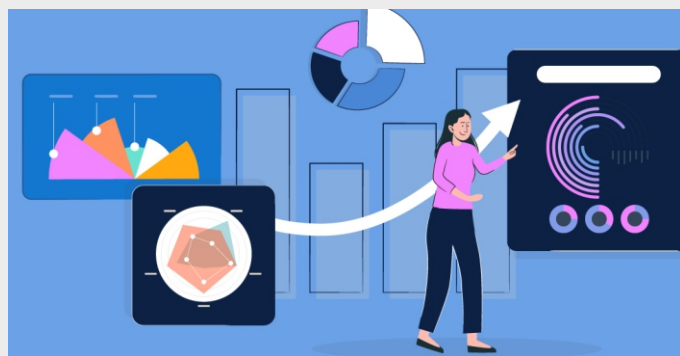
## Key Features

The eSankhyiki portal has been designed with user-centric features, incorporating cutting-edge technologies and global best practices to ensure enhanced accessibility and usability of statistical data. The portal offers two main modules:

# 1. Data Catalogue Module



**Function:** Catalogues the major data assets of the Ministry for ease of access.



**Features:** Allows users to search within datasets, including within tables, and download data of interest.



**Data Products:** Includes National Accounts Statistics, Consumer Price Index, Index of Industrial Production, Annual Survey of Industries, Periodic Labour Force Survey, Household Consumption Expenditure Survey, and Multiple Indicator Survey.



**Content:** Hosts over 2291 datasets along with specific metadata and visualizations for each dataset to enhance user convenience.

# 2. Macro Indicators Module

- **Function:** Offers time series data of key macro indicators with features for filtering and visualizing data.
- **Features:** Enables users to download custom datasets, visualizations, and share them through APIs.
- **Data Products:** Includes National Accounts Statistics, Consumer Price Index, Index of Industrial Production, and Annual Survey of Industries, covering data from the last ten years.
- **Content:** Hosts more than 1.7 million records, facilitating detailed analysis and data reusability.

# Perovskite Quantum Dots (PQDs)

## Why in News?

Scientists from the Centre for Nano and Soft Matter Sciences, Bengaluru, have developed an improved method for producing light-emitting diodes (LEDs) using perovskite quantum dots (PQDs). These advancements are set to enhance LED display technology.

## Perovskite Quantum Dots (PQDs)

Perovskite quantum dots (PQDs) are a new class of quantum dots based on perovskite materials. These materials share a crystal structure similar to the perovskite mineral, calcium titanium oxide ( $\text{CaTiO}_3$ ). Despite being relatively new, PQDs have demonstrated properties that match or even surpass those of metal chalcogenide quantum dots. PQDs are known for their defect tolerance, superior photoluminescence quantum yields, and high color purity, making them ideal for electronic and optoelectronic applications such as LED displays and quantum dot solar cells.

## Comparison of LEDs, Incandescent Light Bulbs, and Compact Fluorescents (CFLs)

Comparison of LEDs, Incandescent Light Bulbs, and Compact Fluorescents (CFLs)

Feature	LED Lamp	Compact Fluorescents (CFLs)	Incandescent Light Bulbs
Life Span (average)	50,000 hours (40X)	8,000 hours (7.5X)	1,200 hours (X)
Power Used	7 watts (X)	14 watts (2X)	60 watts (9X)
Brightness in Lumens	600	540	800
Annual Operating Cost	X	2X	10X
Contains Toxic Mercury	No	Yes	No
Carbon Dioxide Emissions	Lower (X)	2X	10X
Turns On Instantly	Yes	No – takes time to warm up	Yes
Heat Output	Low	Medium	High
Heat Sensitive	No	Yes	Yes
Moisture Sensitive	No	Yes	Yes
Durability	Very durable – can handle jarring and bumping	Not very durable – glass can break easily	Not very durable – glass or filament can break easily

# Agenda of the 16th Finance Commission

## Why in News?

The 16th Finance Commission (FC) has commenced its work under Article 280 of the Indian Constitution, primarily focusing on the devolution of the consolidated fund. Since the 73rd and 74th constitutional amendments, local bodies have gained significant recognition within the federal system. These amendments introduced sub-clauses 280 (3) (b) and (c), which mandate the FC to recommend measures to augment State consolidated funds for supporting panchayats and municipalities.

## Importance of Urban Areas

The National Commission on Urbanisation in the mid-80s described cities as “engines of growth.” Despite this, the current economic scale is insufficient to meet rising needs. Urban areas contribute about 66% of India's GDP and about 90% of total government revenue. However, financial devolution to cities remains inadequate. The World Bank estimates that \$840 billion is needed for basic urban infrastructure in the next decade. Intergovernmental transfers (IGTs) to Urban Local Bodies (ULBs) in India are about 0.5% of GDP, much lower than the 2-5% typical of other developing nations. The fiscal health of municipalities is poor, affecting both productivity and quality of life. Rapid urbanisation without appropriate fiscal action has adverse effects on development.

## Taxation System

The introduction of the Goods and Service Tax (GST) has reduced ULBs' tax revenue (excluding property tax) from about 23% in 2012-13 to around 9% in 2017-18. IGTs from States to ULBs are very low, with State Finance Commissions recommending only about 7% of States' own revenue in 2018-19. Increasing the quantum of IGTs as a percentage of GDP is necessary. Despite the 74th constitutional amendment's aim to financially strengthen ULBs, progress over three decades has fallen short. The 13th Finance Commission observed that “parallel agencies and bodies are emasculating local governments both financially and operationally.”

## Importance of the Census

In the absence of the 2021 Census, reliance on 2011 data is inadequate for evidence-based fiscal devolution. India has approximately 4,000 statutory towns and an equal number of Census towns, with an estimated 23,000 villages, all of which are effectively urban. These figures must be captured by the 16th FC, including the significant migration to Tier-2 and 3 cities. Thus, the 15th FC's nine guiding principles require a revisit, focusing on enhancing property tax collection, maintenance of accounts, resource allocation for mitigating pollution, primary healthcare, solid waste management, drinking water, and untreated sewage.

## Recommendations

The 16th FC must consider India's urbanisation dynamics and ensure IGTs to urban areas are at least doubled. A McKinsey Global Institute report warns that without increased investment in urban infrastructure, current rates will lead to severe water supply issues and untreated sewage. Therefore, it is crucial to prioritize urban development to ensure sustainable growth and improved living conditions in urban areas.

## Air India to Establish Flight Training School in Amravati

### Why in News?

Air India will set up a flying training school in Amravati, Maharashtra, with an investment of ₹200 crore. The school aims to graduate 180 pilots annually and will be operational by June 2025.

### Facilities and Operations

Located at Belora airport, the school will feature 31 single-engine Piper Archer and three twin-engine Diamond DA42 aircraft. It will span over 10 acres with digitally enabled classrooms, a digitized operations center, and a maintenance facility.

### Objectives and Impact

The initiative by the Maharashtra Airport Development Company Ltd. (MADCL) will create over 3,000 jobs in the aviation sector and allied fields, significantly contributing to the state's GDP. Air India aims to enhance its global standing by training pilots with world-class curricula.

### Strategic Importance

This facility will boost India's flying training infrastructure, reducing dependence on foreign training and improving domestic training standards.



03/07/24

## Understanding India's Emergency Provisions: Fifty Years Post-1975

### Why in News?

On June 25, India commemorated fifty years since the imposition of the Emergency, a significant period from 1975 to 1977 when civil liberties were curtailed, press freedom restricted, mass arrests conducted, elections cancelled, and governance was executed by decree.





## Emergency Definitions and Legal Framework

According to the Constitution of India, there are three types of emergencies:



- **National Emergency (Article 352):** Triggered by war, external aggression, or armed rebellion, allowing the President to declare a national emergency if he perceives a threat to the nation's security.
- **President's Rule or State Emergency (Article 356):** When governance in a state cannot be carried on in accordance with the Constitution.
- **Financial Emergency (Article 360):** If the financial stability or credit of India or any part thereof is threatened.

**Procedures and Duration** A national emergency, declared under Article 352, must be laid before both houses of Parliament and approved by a special majority within one month. If approved, it normally remains in effect for six months but can be extended indefinitely with parliamentary approval every six months. The process ensures both immediate responsiveness and legislative oversight.

## Impacts of a National Emergency

- **Executive Power:** Central government can direct any state government on how to use its executive powers.
- **Legislative Authority:** Parliament gains the power to legislate on matters in the State List, which are normally reserved for state legislatures.
- **Financial Control:** The President can alter the distribution of revenues between the Union and states.
- **Extension of Legislative Terms:** The life of Lok Sabha and state assemblies can be extended beyond their normal term up to a maximum of six months after the emergency ends.

## Rights and Liberties During Emergency

### Article 358:

Automatically suspends the six fundamental rights under Article 19 during emergencies due to war or external aggression.

**Article 359:** Allows the President to suspend the right to move any court for the enforcement of other fundamental rights, except for Articles 20 and 21 which guarantee protection in respect of conviction for offenses and protection of life and personal liberty.

**Revocation of Emergency** The President can revoke the emergency without the need for parliamentary approval, though any extension requires a special majority in Parliament.

## Historical Instances

- **1962 Indo-China War:** Marked the first national emergency in India.
- **1971 Bangladesh Liberation War:** This was the second instance when emergency provisions were invoked.
- **1975 Internal Emergency:** Distinctly noted for its basis on internal disturbances, this period is often criticized for its severe impact on democratic structures and civil liberties in India.

## Enhancing Rural Mobile Connectivity: The Role of IEEE 2061-2024 Standard

### Introduction to Rural Mobile Connectivity Issues:

Mobile devices are integral to daily life, offering connectivity for transactions, communication, and access to information. However, there is a significant disparity in mobile network deployment and usage between urban and rural areas. Urban areas enjoy a robust 127% teledensity compared to just 58% in rural regions, largely due to the economic constraints that make mobile services less affordable for rural populations.

### IEEE 2061-2024 Standard and Its Implementation:

The IEEE 2061-2024 standard introduces a wireless network architecture aimed at providing affordable broadband access in rural areas. Approved by the Institute of Electrical and Electronics Engineers (IEEE), this standard advocates for a multi-hop wireless connectivity network. It effectively bridges the gap where traditional networks fall short, especially in areas lacking optical fiber links.



### The Frugal 5G Network Concept:

Defined within the IEEE 2061 framework, the Frugal 5G network (also known as the middle-mile network) is designed to extend connectivity in economically challenging rural areas. This model utilizes a series of intermediate nodes that amplify the network's reach beyond the limitations of traditional single-hop systems. The middle-mile setup includes various transmission types, such as macro-BS and Wi-Fi, to deliver extended coverage.

### Operational Dynamics of the Frugal 5G Network:

The network operates by allowing seamless connectivity transitions between different network types—including 4G, 5G, and Wi-Fi—thus ensuring that even in the remotest areas, users can access consistent and reliable internet services. The technology employs direct connectivity from core networks through edge nodes, ensuring that even unconnected regions can link to the global internet backbone without direct fiber links.

### Impact and Benefit:

The IEEE 2061-2024 standard is poised to significantly alter the landscape of rural connectivity in India by offering a scalable solution that integrates various network types. This approach not only enhances connectivity but also offers a cost-effective solution tailored for the diverse geographical and economic landscapes of rural India.

# ICEA's Recommendation on Tariff Reduction for Electronic Inputs

## Why in News?

The Indian Cellular & Electronics Association (ICEA) has urged the government to consider reducing import duties on electronic manufacturing inputs. This recommendation was directed towards the Finance Ministry as a key demand in the upcoming Union budget. The ICEA, which represents domestic electronics manufacturers, highlights that this measure is crucial to enhance the competitiveness of Indian manufacturers against their counterparts in countries like China and Vietnam, where tariffs on electronic components are considerably lower.



## Rationale behind the Recommendation:

The call for lower tariffs comes at a time when India's electronic production sector is experiencing sustained growth, transitioning from being solely dependent on domestic demand to becoming a significant player in the global market. The ICEA President, Pankaj Mohindroo, pointed out that lowering duties would not only reduce the cost of raw materials but also allow Indian companies to leverage global market opportunities more effectively. He noted that the current tariff structure inadvertently places Indian manufacturers at a disadvantage by elevating the net prices of inputs, thus impacting their ability to compete on price in both domestic and international markets.

## Impact of Current Tariffs on Market Dynamics:

The association argues that the high input costs due to current tariff rates make it challenging for Indian electronic component manufacturers to price their products competitively. This is especially significant considering a large portion of fresh production in the sector is intended for export, implying that international competitiveness is essential for the growth of the industry.

# Herpes Simplex Virus (HSV) Infection

A study has found that high-income and upper-middle-income countries sustained the highest economic burden from herpes infections in 2016.



## About Herpes Simplex

Herpes simplex is a group of viral infections caused by herpes simplex viruses (HSV). The virus resides within nerve cells and alternates between inactive and active states.

## Transmission

Herpes is transmitted through direct contact with an infected person or by touching contaminated surfaces.

## Symptoms

Painful sores or blisters on lips, mouth, genitals, and anus.

## Types of HSV

- **Type 1 (HSV-1):**
  - Primarily spreads through oral contact.
  - Causes oral herpes (cold sores) and can also cause genital herpes.
  - Most adults are infected with HSV-1.
- **Type 2 (HSV-2):**
  - Spreads through sexual contact.
  - Causes genital herpes.
  - Symptoms range from none to mild, with possible recurring painful blisters or ulcers.

## Treatment

There is no permanent cure for herpes, but medications can suppress symptoms and reduce the spread of the infection to others.

### Prevention

#### HSV-2 (Genital Herpes)

Promotion of safe sexual practices can prevent transmission.

#### HSV-1 (Oral and Genital Herpes)

Education on the risks associated with oral-genital contact is essential.

### Prevalence Global:

In 2016, 67% of the global population under 50 had HSV-1 infection (oral or genital), usually acquired during childhood. HSV-2 affects an estimated 13% of people aged 15–49 years worldwide, infecting women almost twice as often as men due to more efficient sexual transmission from men to women.

### India:

The National AIDS Control Organization (NACO) reported a herpes prevalence of 3 to 10%, higher in states like Karnataka, Maharashtra, and Gujarat.

# Financial Devolution to Urban Local Bodies (ULBs)

## Why in News?

Despite efforts since the 11th Finance Commission, financial devolution to cities remains insufficient. Municipalities face poor fiscal health, and rapid urbanisation without adequate fiscal measures hampers development.

## Current State of Financial Devolution

- **Allocation to ULBs:** India allocates only 0.5% of its GDP to ULBs, whereas countries like South Africa, Mexico, the Philippines, and Brazil allocate between 1.6% to 5.1%.
- **Intergovernmental Transfers (IGTs):**
  - Account for about 40% of ULBs' revenue in India.
  - Characterized by unpredictability and lack of earmarking for vulnerable groups and horizontal equity.
- **Impact of GST:** The introduction of GST reduced the tax revenue (excluding property tax) of ULBs from 23% in 2012-13 to around 9% in 2017-18.
- **State Transfers to ULBs:** State Finance Commissions recommended only about 7% of States' own revenue for ULBs in 2018-19.
- **74th Constitutional Amendment:** Intended to financially strengthen ULBs, but progress has been inadequate over three decades.
- **Parallel Agencies:** The 13th Finance Commission noted that parallel agencies financially and operationally diminish local governments.

## Challenges Posed by Absence of 2021 Census Data

- **Accurate Population Figures:** Essential for determining fund distribution and ensuring equitable resource allocation based on demographic needs.
- **Financial Devolution Strategies:** Census insights inform strategies by highlighting urban growth trends and demographic shifts.
- **Migration Impact:** Accurate census data is crucial for capturing significant migration to tier 2 and tier 3 cities, impacting their service structure and needs.
- **Service Needs:** Lack of 2021 census data hampers understanding of demographic changes essential for evidence-based fiscal devolution.

## Measures to Strengthen ULBs

- **Support from Governments:** Local governments need funding, personnel, and technical assistance from Union and State governments.
- **Increase IGTs:** Enhancing the percentage of GDP allocated to ULBs is crucial for their financial stability.
- **Addressing Parallel Programs:** Programs like the MP and MLA Local Area Development Schemes should be addressed to prevent distortion of the federal structure by creating parallel agencies.

## 16th Finance Commission

- **Establishment:** The Government of India has established the 16th Finance Commission under Article 280(1) of the Constitution, with Dr. Arvind Panagariya appointed as Chairman.
- **Article 280:** Mandates the establishment of a Finance Commission every five years to recommend the distribution of tax revenues between the central and state governments.

## Terms of Reference for the 16th Finance Commission

- **Distribution of Taxes:** Recommending the distribution of taxes between the Union and States and allocating State shares.
- **Grants-in-Aid:** Principles governing grants-in-aid from the Consolidated Fund of India to States and grants under Article 275 for specific purposes.
- **Supporting Local Bodies:** Measures to boost State Consolidated Funds for supporting Panchayats and Municipalities based on State Finance Commission recommendations.
- **Disaster Management:** Reviewing current financing structures related to disaster management under the Disaster Management Act of 2005 and proposing improvements or changes.

### CONCLUSION

The financial health of Urban Local Bodies in India remains weak due to insufficient financial devolution and unpredictable intergovernmental transfers. The introduction of GST has further reduced their revenue base. Accurate census data is crucial for evidence-based fiscal devolution. Enhancing support from Union and State governments, increasing IGTs, and addressing parallel programs are essential steps to strengthen ULBs. The 16th Finance Commission's role will be pivotal in recommending measures to improve the financial stability of local governments.

# India to Host 46th UNESCO Heritage Panel Session

## Why in News?

- India will host the 46th session of the UNESCO World Heritage Committee from July 21-31.

## Where it is Hosted?

- The event will take place at the Bharat Mandapam in New Delhi.
- It is organized by the Archaeological Survey of India and is likely to be inaugurated by Prime Minister Narendra Modi.
- UNESCO has released a provisional agenda and timetable for the meeting.



## What is UNESCO and When was it Established?

- **UNESCO:** The United Nations Educational, Scientific and Cultural Organization.
- **Establishment:** Founded on November 16, 1945.
- **Purpose:** UNESCO aims to promote peace and security through international cooperation in education, science, and culture.
- **Functions:** The organization works to preserve cultural heritage, promote education for all, foster scientific progress, and protect freedom of expression.



# National Green Hydrogen Mission Scheme Guidelines



## Why in News?

The Government of India has issued new guidelines for funding testing facilities, infrastructure, and institutional support under the National Green Hydrogen Mission (NGHM), aimed at enhancing the quality and safety standards in the Green Hydrogen sector.

## Guidelines Overview:

- Issued by the Ministry of New & Renewable Energy (MNRE) on July 4, 2024.
- Focus on creating and upgrading testing facilities for components, technologies, and processes in the Green Hydrogen value chain.
- Scheme to be implemented with a budget of Rs. 200 Crores till FY 2025-26.
- National Institute of Solar Energy (NISE) will act as the Scheme Implementation Agency (SIA).

## Goals and Implementation:

- Identify gaps in existing testing facilities and support the creation of new ones.
- Ensure robust quality, sustainability, and safety in Green Hydrogen production and trade.
- Encourage participation from both private and government entities.
- Funding up to 100% for government entities and 70% for non-government entities for equipment and commissioning.
- Support the establishment of new testing infrastructure and the upgrade of existing facilities.





## Significance:

- The scheme aligns with the National Green Hydrogen Mission's broader goals to decarbonize the economy, reduce fossil fuel dependence, and establish India as a leader in Green Hydrogen technology.
- The initiative is part of India's efforts to become self-reliant in clean energy and contribute to the global clean energy transition.

## National Green Hydrogen Mission (NGHM)

The National Green Hydrogen Mission (NGHM) aims to promote the commercial production of green hydrogen and position India as a net exporter of this clean fuel. Launched to drive India's transition towards a sustainable and self-reliant energy future, the mission encompasses several key sub-schemes:

## Sub-schemes of NGHM:

1. **Strategic Interventions for Green Hydrogen Transition Programme (SIGHT):**
  - **Objective:** To fund the domestic manufacturing of electrolyzers and the production of green hydrogen.
  - **Focus:** Enhancing the capacity for local production and reducing dependence on imports.
2. **Green Hydrogen Hubs:**
  - **Objective:** To develop regions capable of supporting large-scale production or utilization of hydrogen.
  - **Focus:** Establishing specific areas as centers for green hydrogen production and consumption, leveraging local resources and infrastructure.
3. **Strategic Hydrogen Innovation Partnership (SHIP):**
  - **Objective:** To foster research and development through a public-private partnership (PPP) framework.
  - **Focus:** Encouraging innovation and technological advancements in the green hydrogen sector.

# Green Hydrogen Production

## Process:

- Green hydrogen is produced by splitting water into hydrogen and oxygen using an electrolysis process.
- **Electrolysis:** Involves passing an electric current through water to induce a chemical change, separating hydrogen and oxygen molecules.
- **Energy Source:** The electrolysis process is powered by renewable energy sources such as wind and solar, ensuring the sustainability of the hydrogen produced.



## NITI Aayog - Sampoornata Abhiyan

### Why in News?

NITI Aayog launched the 'Sampoornata Abhiyan' on July 4, 2024, aiming for 100% saturation of 12 key social sector indicators in 500 Aspirational Blocks and 112 Aspirational Districts over a three-month campaign.

### Campaign Launch and Participation:

- A nationwide initiative focusing on Health, Nutrition, Agriculture, Social Development, and Education.
- The campaign involves extensive participation from district and block-level officials, community leaders, local representatives, and citizens.
- Activities include health camps, awareness marches, cultural programs, and educational competitions.

### Key Performance Indicators (KPIs):

#### Aspirational Blocks:

1. Antenatal care registration in the first trimester.
2. Diabetes and hypertension screening.
3. Supplementary nutrition for pregnant women.
4. Soil Health Cards generation.
5. Revolving fund access for Self Help Groups (SHGs).

#### Aspirational Districts:

1. Antenatal care registration in the first trimester.
2. Supplementary nutrition for pregnant women.
3. Full immunization of children (9-11 months).
4. Soil Health Cards distribution.
5. Functional electricity in secondary schools.
6. Timely provision of textbooks in schools.



#### Implementation and Support:

NITI Aayog officials and Young Professionals are guiding and supporting local governance. Collaboration with Central Ministries, State, and Union Territory governments to achieve campaign objectives. Emphasis on competitive and cooperative federalism to enhance socio economic development.

## Anusandhan National Research Foundation (ANRF)

### Why in News?

The recently announced executive and governing boards of the Anusandhan National Research Foundation (ANRF) lack sufficient representation from Indian industry and state universities. Despite the ANRF Act, 2023 allowing for up to five members from business organisations or industries, the current 15-member Governing Board includes only one industrialist and two university representatives.

## Board Composition and Governance:

- **Current Board:** Primarily composed of government officials and department secretaries, with minimal representation from industry and state universities.
- **Allowed Composition:** The ANRF Act, 2023 permits appointing up to five members from business organisations or industries onto the governing board.
- **Replacement:** The ANRF replaces the Science and Engineering Research Board (SERB), which was established in 2008.

### SCOPE AND FUNDING:

- **Expanded Scope:** Unlike SERB, ANRF includes humanities and social sciences in its definition of research.
- **Funding Structure:** ANRF can fund and receive money from private and international sources, with a budget allocation of ₹2,000 crore for the 2024-2025 financial year.
- **Replacement:** The ANRF replaces the Science and Engineering Research Board (SERB), which was established in 2008.

### Research and Development Context:

- **Private Sector Involvement:** In 2019-20, only 36% of India's total research expenditure came from the private sector.
- **R&D Expenditure:** India's overall R&D expenditure remains low at 0.6% of GDP, compared to the global average of 1.8%.
- **Replacement:** The ANRF replaces the Science and Engineering Research Board (SERB), which was established in 2008.

## OBJECTIVES AND FUNCTIONS:

- **Central Hub:** ANRF will act as a central hub, promoting R&D activities across universities, colleges, research institutions, and R&D labs.
- **Alignment with NEP:** It aligns with the National Education Policy (NEP) recommendations, ensuring research efforts meet national educational objectives.
- **Collaboration:** Fosters collaboration between industry, academia, government departments, and research institutions, creating a platform for participation and contribution.



# MINISTRY OF JAL SHAKTI:

## Swachh Gaon, Shudh Jal - Behtar Kal' Campaign



### Context and Objective

The Ministry of Jal Shakti's Department of Drinking Water and Sanitation (DDWS) has launched the 'Swachh Gaon, Shudh Jal - Behtar Kal' campaign, running from 1st July 2024 to 31st August 2024. This two-month awareness campaign aims to promote the use of safe water and sanitation practices at the village and panchayat levels. The initiative is part of a broader collaboration with the National STOP Diarrhoea Campaign, launched on 24th June 2024 by Union Health Minister Shri J.P. Nadda. The campaign underscores the Indian government's commitment to public health, particularly in reducing childhood mortality due to diarrhoea and fostering a culture of health and hygiene across rural India.



### Campaign Focus Areas

The campaign focuses on several key areas:

- 1. Strengthening Health Infrastructure:** Ensuring the maintenance of health facilities and the availability of essential medical supplies like ORS and Zinc, especially in rural areas.
- 2. Improving Access to Clean Water and Sanitation:** Implementing quality control measures and sustainable practices for safe drinking water and sanitation.
- 3. Enhancing Nutritional Programs:** Tackling malnutrition to prevent diarrhoeal diseases.
- 4. Promoting Hygiene Education:** Providing necessary facilities in schools and educating children on hygiene practices.

## Goals

The primary goal of the campaign is to achieve zero child deaths from diarrhoea through a comprehensive, multi-sectoral approach. Additional objectives include achieving and sustaining the Open Defecation Free Plus Model status in all villages and improving overall public health in rural India, thereby contributing to a Sampoorna Swasth & Swachh Bharat (completely healthy and clean India).

## Annual Survey of Unincorporated Sector Enterprises (ASUSE) Results for 2021-22 and 2022-23

**Overview:** The Ministry of Statistics & Programme Implementation (MoSPI) released the results of the Annual Survey of Unincorporated Sector Enterprises (ASUSE) for 2021-22 and 2022-23 on 14th June 2024. The surveys covered the periods from April 2021 to March 2022 and October 2022 to September 2023, respectively. The survey aimed to assess the performance and growth of unincorporated non-agricultural establishments in India

### Key Results:

- **Growth in Establishments and Workers:**

- The number of establishments increased by 5.88% from 5.97 crore in 2021-22 to 6.50 crore in 2022-23.
- The number of workers increased by 7.84% from 9.8 crore in 2021-22 to 11 crore in 2022-23.
- Gross Value Added (GVA) saw a growth of 9.83% during the same period.

- **Sectoral Insights:**

- The highest number of establishments were in the 'other services' sector (37.88%) followed by 'trade' (34.71%) and 'manufacturing' (27.41%).
- Uttar Pradesh reported the highest number of establishments, followed by West Bengal and Maharashtra.

- **Digital and Financial Inclusion:**

- Use of the internet for entrepreneurial purposes increased by 7.2%.
- Average fixed assets per establishment rose from Rs. 2,81,013 to Rs. 3,18,144.
- Outstanding loans per establishment increased from Rs. 37,408 to Rs. 50,138.

- **Women Entrepreneurship:**

- 54% of proprietary establishments in the manufacturing sector were run by women entrepreneurs.

## Survey Challenges and Methodology:

- The survey period of ASUSE 2021-22 was impacted by the COVID-19 pandemic, particularly during April to June 2021, affecting the annual aggregate estimates.
- The ASUSE surveys followed a multi-stage stratified sampling scheme, covering rural and urban areas across India, excluding inaccessible villages in Andaman and Nicobar Islands.
- Data collection was done through oral enquiry and recorded using Pen-and-Paper Personal Interviews (PAPI) for 2021-22 and Computer Assisted Personal Interviews (CAPI) for 2022-23.

**Significance:** The unincorporated non-agricultural sector is crucial for the Indian economy due to its role in absorbing a significant portion of the workforce and contributing to the GDP. The surveys highlight the sector's resilience, growth in digital adoption, and increased financial inclusivity, reflecting its evolving dynamics and importance.

## Key Facts

### 1. Entities Involved in Launching the Initiative

- **Women Entrepreneurship Platform (WEP):** Incubated in NITI Aayog in 2018, transitioned to a public-private partnership in 2022.
- **Partners:** TransUnion CIBIL (TU CIBIL), MicroSave Consulting (MSC), Small Industries Development Bank of India (SIDBI), various public and private sector partners.

### 1. Purpose of the Initiative

- To accelerate access to finance for women entrepreneurs.
- To strengthen the ecosystem for women-led development by fostering collaboration among stakeholders.



## Second Meeting of Financing Women Collaborative (FWC)





## 1. Key Facts and Initiatives

- **Event Details:** The second convening of FWC was held at the Taj Mahal Palace Hotel, Mumbai, on 5th July 2024.
- **Participants:** Senior officials from NITI Aayog, RBI, Ministry of Finance, Ministry of MSME, SIDBI, public and private sector banks, CSOs/NGOs, and women entrepreneurs.
- **Key Speakers:** Representatives from NITI Aayog, RBI, Ministry of Finance, MSME, SIDBI, SBI, Bank of India, Gates Foundation, MAVIM, TU CIBIL, and MSC.
- **Objectives:** Enhance credit readiness of women entrepreneurs, foster collaboration, amplify research and good practices.

## 2. Initiatives Launched:

- Partnership between MAVIM and MSC to improve access to finance through alternate credit rating mechanisms.
- MoU exchange between WEP and GroW Network (founded by AfD, SIDBI, and Shakti Sustainable Energy Foundation).
- Launch of the “Seher” program by TU CIBIL.
- Launch of the “Shine” program in partnership with CreditEnable to strengthen credit readiness of women-led enterprises.
- SEWA Bank's commitment to reach more women entrepreneurs as a member of FWC.

# Karnataka Bill for Gig Workers

## Why in News?

The Karnataka government has proposed a bill aimed at regulating the social security and welfare of platform-based gig workers. This initiative positions Karnataka as the second state in India to introduce such measures, following Rajasthan.

## Key Provisions of the Bill

**1**

### Definition of Gig Workers:

The bill defines a gig worker as an individual engaged in a work arrangement resulting in a fixed rate of payment. The work is delivered through a platform, under specified terms and conditions.

**2**

### Scope and Coverage:

The bill includes all forms of gig work, including piece-rate work and contract-based work. Estimates suggest India will have 23.5 million gig workers by 2029-30, with significant numbers in urban centers.

**3**

### Rights-Based Approach:

The bill introduces a rights-based framework to safeguard gig workers' rights. It imposes obligations on aggregators regarding social security, occupational hazards, and welfare of gig workers.

**4**

### Grievance Redressal Mechanisms:

The bill proposes safeguards against unfair dismissals and a two-level grievance redressal system. Aggregators are required to provide clear reasons for worker terminations and ensure transparency.

**4**

**Transparency and Accountability:** Contracts between aggregators and workers must be in a simple language, with any changes notified at least 14 days in advance. Aggregators must maintain a worker termination register, detailing valid reasons for terminations.



## Highlights of the Bill

**Workers' Rights:** Introduction of safeguards against unfair dismissals and reduced payments. Transparency in payments, including reasons for deductions.

### **Grievance Mechanisms:**

Two-level grievance redressal systems to handle worker complaints. Workers have the right to refuse a specific number of gigs without adverse consequences.

### **Contracts and Termination:**

Detailed conditions under which contracts can be terminated. Workers must be given reasons for any adverse actions and have a 14-day notice period for contract changes.



## Importance of the Bill

### **1. Arbitrary Terminations:**

The bill addresses the issue of arbitrary terminations and blacklisting without justification. It ensures that gig workers have protections similar to traditional employment.

### **Worker Welfare:**

Aims to protect gig workers from exploitative practices. Ensures fair wages, job security, and a structured grievance redressal process.



## Similar Initiatives in Other States

### **Rajasthan:**

Rajasthan introduced the Platform Based Gig Workers (Registration and Welfare) Bill last year. This bill has been a pioneer in providing social security and welfare measures for gig workers.

### **Haryana:**

Haryana is also considering similar legislation. This move underscores a growing recognition of the need to protect gig workers across India.

## CONCLUSION

“ The Karnataka Bill for gig workers marks a significant step towards formalizing the gig economy and ensuring social security for its workers. By incorporating comprehensive rights and protections, the bill aims to provide a balanced approach to the emerging challenges in the gig economy. It reflects an evolving understanding of labor rights and the necessity for regulatory frameworks that keep pace with changing work patterns. ”

# Managing Brain Eating Amoeba Cases

## Why in News?

Primary Amoebic Meningoencephalitis (PAM) is a rare but fatal disease caused by the amoeba *Naegleria fowleri*. This deadly infection has recently gained attention due to a series of cases in Kerala.

## Recent Cases and Fatalities

In the past two months, Kerala has reported four cases of PAM, resulting in three fatalities. The affected individuals include E.P. Mridul (12), V. Dakshina (13), and Fadva (5), who succumbed to the infection in different hospitals across the state. A 14-year-old boy from Thikkodi in Kozhikode is currently undergoing treatment, highlighting the urgency of addressing this health concern.

## Understanding PAM

PAM is caused by *Naegleria fowleri*, an amoeba that thrives in warm freshwater bodies such as lakes, ponds, and rivers. This organism can also survive in poorly maintained swimming pools. The infection occurs when the amoeba enters the body through the nose, eventually reaching the brain where it destroys brain tissues. Early symptoms include headache, fever, nausea, and vomiting, which can quickly progress to stiff neck, confusion, hallucinations, and loss of balance. The disease is highly fatal, with most patients dying within 1 to 18 days after the onset of symptoms.

## Diagnosis and Treatment

Diagnosing PAM involves PCR tests of cerebrospinal fluid, though detection is often challenging due to the rarity of the disease. There are no standard treatment protocols for PAM. However, the State Health Department has procured miltefosine, a broad-spectrum anti-microbial drug recommended by the CDC for such cases.

## Historical Occurrence in Kerala

Kerala has encountered previous instances of PAM, with the first detection in Alappuzha in 2016. Subsequent cases were reported in various districts, including Malappuram, Kozhikode, and Thrissur, over the years. In response to the recent cases, Health Minister Veena George convened meetings to develop special treatment guidelines, and Chief Minister Pinarayi Vijayan issued directives to maintain cleanliness in water resources to prevent further infections.

## Preventive Measures

To reduce the risk of PAM, individuals should avoid swimming in warm freshwater bodies, especially during the summer. Using nose clips or refraining from activities that force water into the nose, such as diving, can also help prevent infection. Public health measures include chlorinating swimming pools and water in amusement parks, as well as regularly cleaning and maintaining water bodies to ensure they are safe for use.

## Conclusion

“ Primary Amoebic Meningoencephalitis (PAM) is a severe and often fatal disease that necessitates immediate attention. The recent cases in Kerala underline the importance of stringent preventive measures and increased public awareness about the risks associated with *Naegleria fowleri*. Early diagnosis and prompt treatment are essential in managing this deadly infection and preventing further fatalities. ”

# Chimeroids: A Breakthrough in Brain Modeling

## Why in News?

Scientists have successfully developed 3D brain models, known as chimeroids, for the first time using cells from multiple individuals. This innovative approach aims to replicate human brain biology more accurately than traditional 2D cellular models or animal models such as lab mice.

## Advantages of Chimeroids

Brain organoids, typically derived from a single donor's cells, lack genetic diversity, which is crucial for accurate brain development and drug response studies. Chimeroids address this limitation by incorporating genetic material from multiple donors. When exposed to neurotoxic chemicals like ethanol and valproic acid, chimeroids demonstrated varied growth inhibition responses, reflecting the genetic diversity among the donors.

## Creation of Chimeroids

To create chimeroids, researchers collected stem cells from multiple individuals and developed brain organoids from each person's cells using growth-inducing chemicals. The cells were then disassembled and recombined to ensure each chimeroid contained an equal number of cells from each donor, thereby introducing genetic diversity.

## Uses of Chimeroids

Chimeroids hold significant potential for various applications, including disease modeling, drug testing, and neural development studies.

## Understanding Stem Cells

Stem cells are versatile cells capable of developing into many different cell types in the body, serving as a repair system. There are two main types of stem cells: embryonic stem cells and adult stem cells.



# THE JAGANNATH TEMPLE

## Why in News?

President of India Participates in Annual Rath Yatra Festival in Puri

## The Jagannath Temple

**Significance:** One of the Char Dham pilgrimage sites in India.

**Other Dham:** Badrinath, Dwarka, and Rameswaram.

**Deities:** Jagannath, Balabhadra, and Subhadra.

### Unique Aspect:

- The icon of Jagannath is made of wood and ceremoniously replaced every twelve or nineteen years by a replica.
- The process of replacing the idols, known as Nabakalebara (re-embodiment), involves an elaborate ceremony where the deities relinquish their old bodies and assume new ones.
- This is in contrast to the stone and metal symbols found in the majority of Hindu temples.

### Rath Yatra

- **Description:** The annual chariot festival, known as Rath Yatra, is a significant event in Puri.
- **Occurrence:** The festival takes place during the month of **Asadha** (June or July).

### Procession:

- The deities Jagannath, Balabhadra, and Subhadra are brought out from the sanctum of the temple.
- They travel approximately 3 km to the Shri Gundicha Temple in huge, ornately decorated chariots.

**Public Participation:** This procession allows the public to have a direct view of the deities.

## History of Jagannath Temple

- ➔ **Reconstruction:** The temple was rebuilt by the Ganga dynasty king Anantavarman Chodaganga in the 12th century CE, as indicated by the Kendupatna copper-plate inscription of his descendant Narasimhadeva II.
- ➔ **Further Development:**
  - The temple complex was further developed during the reigns of subsequent kings, including those of the Ganga dynasty and the Gajapati dynasty.

## Significant Events

1174 CE

King Anang Bhim Deo ascended the throne of Orissa and invested greatly in construction projects, including the ancillary shrines and the walls of Jagannath temple, which took fourteen years to complete in 1198 CE.

1575

The deities were restored by Ramachandra Deva I of the Kingdom of Khurda. As an expression of gratitude, devotees bestowed upon him the name 'Abhinav Indrayumna' (Indrayumna incarnate).

1692

Mughal Emperor Aurangzeb ordered the temple's closure. It was reopened only after Aurangzeb's death in 1707.

1809

The British East India Company officially returned the charge of the temple to the Rajas, who retained control until British power was uprooted from the Indian subcontinent.

1568

The temple was invaded and the deities were destroyed by General Kalapahad, who led the victorious army of the Nawab of Bengal, Sultan Suleiman Karani.

Within two decades, Ramachandra Deva I's authority over Puri and the temple was recognized by the Mughal Empire. Raja Mansingh bestowed upon him the title of 'Gajapati Ruler of Khurda and Superintendent of the Jagannath Temple'.

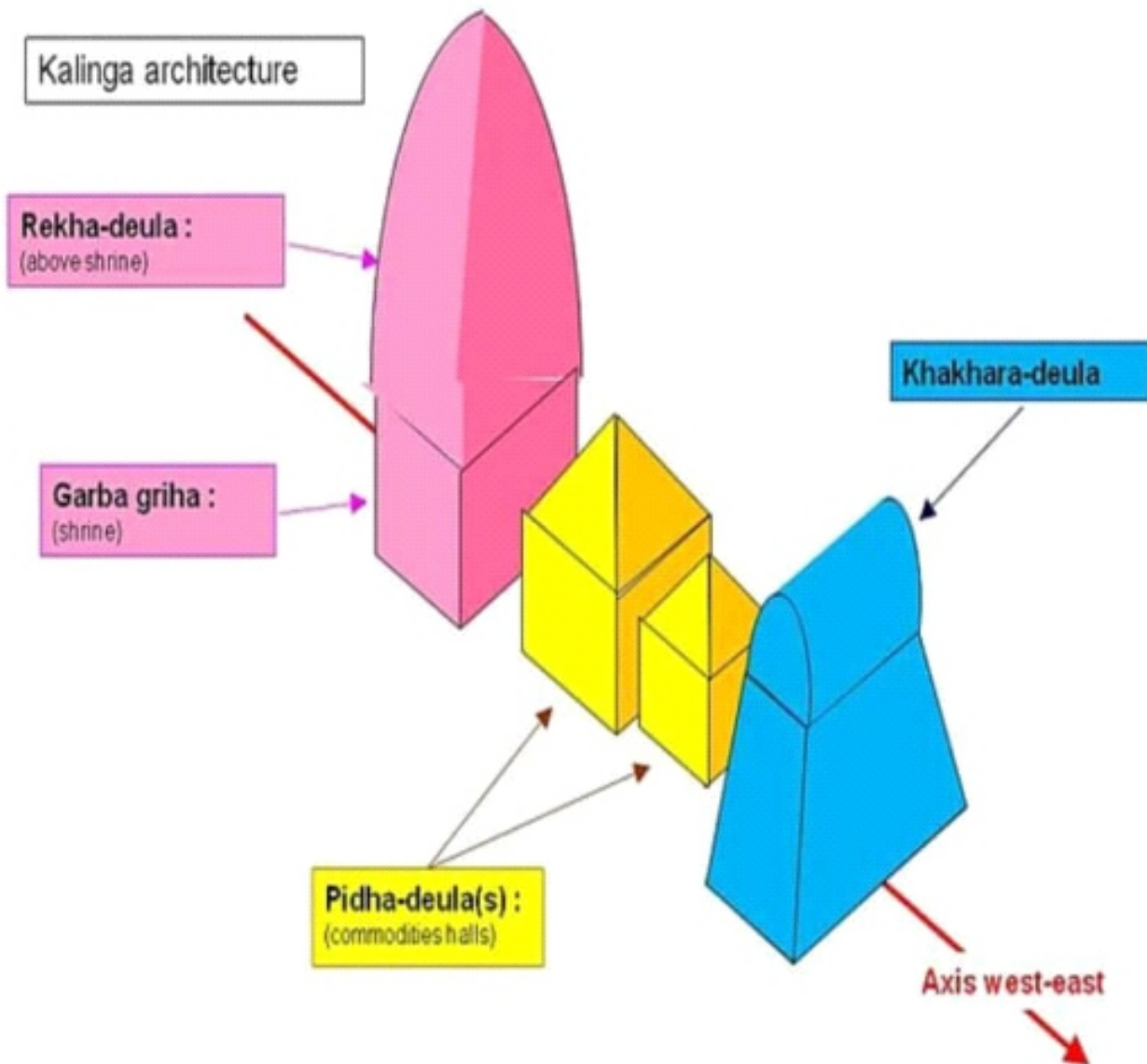
1751 & 1803

The Maratha and the British assumed control of the temple complex, respectively. However, locally, the Rajas of Khurda retained the trust of the devotees in managing the temple and its rituals.

1975

The Archaeological Survey of India undertook a project to remove the multiple layers of lime plaster to uncover the original designs beneath. The conservation project lasted for two decades.

### The architecture of the temple



- ➔ **Style:** The temple is a magnificent example of Kalinga-style architecture, known for its gorgeous sculptures and excellent carvings.
- ➔ **Height:** The temple stands at approximately 214 feet above ground level, making it one of the highest buildings in the Indian subcontinent.
- ➔ **Location:** It is perched atop a roughly ten-acre elevated stone platform in the center of Puri.

### Compound Walls

- The temple is surrounded by two compound walls:
  - **Meghanada Pracira:** The outer wall.
  - **Kurma Pracira:** The inner wall.

## Components:

- ➔ **Vimana or Deula (Garbagriha):** The main sanctuary built in the Nagara style, characterized by a curvilinear tower known as Shikhar.
- ➔ **Jagamohana:** The assembly hall, built in the Pidha deula style.
- ➔ **Natamandapa:** The audience hall.
- ➔ **Bhogamandapa:** The hall for residuary offerings.

## Architectural Elements:

- ➔ The Vimana is built on the Pancha Ratha ground plan, where its vertical shape is divided into five projected columns or pillar-like structures (Ratha) on each side.
- ➔ The Vimana and Jagamohana are divided into five principal parts along the vertical plane:
  - **Pishta or Pitha:** The base.
  - **Bada:** The vertical or perpendicular wall.
  - **Gandi:** The trunk of the body, represented by a curvilinear tower (Rekha deula) or a pyramidal roof (Pidha deula).
  - **Mastaka:** The crowning element, featuring the Neelachakra, an eight-spoked wheel made of Ashtadhatu, sacred to Lord Vishnu.
- ➔ The unique architectural quality of the Pancha Ratha Rekha deula of Shree Jagannatha lies in its intricate design and structural division.

## Significance and Cultural Importance

- **Char Dham Pilgrimage:** The Jagannath Temple is one of the four most sacred pilgrimage sites in Hinduism, collectively known as Char Dham.
- **Tourist Attraction:** The temple is a major draw for visitors to Puri, attracting millions of devotees and tourists each year.
- **Cultural Heritage:** The temple's rich history, architectural grandeur, and religious significance make it a vital part of India's cultural heritage.

## Additional Information

- **Archaeological Survey of India:** The temple is currently maintained by the Archaeological Survey of India, which oversees its conservation.
- **Public Access:** Only traditional Hindus are allowed inside the temple. Non-Hindus can view parts of the enclosure from the top of the Emar Matha building near the temple's east-facing gate.

## Trivia

The English word “juggernaut” originated from Jagannath, referring to a huge, unstoppable force or vehicle, inspired by the colossal chariots used during the Rath Yatra.

# PRIVATE PAPERS OF EMINENT PERSONALITIES

## Why in News?

The Prime Ministers' Museum & Library (PMML) has decided to impose limits on the declassification conditions for future donors of Private Papers of eminent personalities. This decision aims to balance access to historical documents with respect for privacy.

## Prime Ministers' Museum & Library (PMML)

**Original Name:**  
Nehru Memorial  
Museum &  
Library (NMML)

**Purpose:**  
Established in memory of  
India's first Prime Minister,  
Jawaharlal Nehru

**Ministry:**  
Operates under the  
Ministry of Culture

## Recent Decision

**Embargo on Papers:** New private papers will be subjected to a five-year embargo from the date of receipt, extendable up to ten years in rare cases.

**Access to Papers:** Several sets of private papers that have been in custody for decades will be made accessible, including those of:

- o G D Mavalankar (first Speaker of Lok Sabha)
- o Nayantara Sahgal (Nehru's niece)

## Collection of Private Papers

**First Private Papers:** The Jawaharlal Nehru Papers were the first to be obtained, facilitated by the Jawaharlal Nehru Memorial Fund (JNMF) on behalf of Indira Gandhi.

**Other Collections:** Papers of notable figures like Mahatma Gandhi, B R Ambedkar, Rajkumari Amrit Kaur, Maulana Abul Kalam Azad, Bhikaji Cama, Chaudhary Charan Singh, and more.

## Recent Acquisitions

Former Himachal Pradesh CM Shanta Kumar, which include letters on topics like One Nation, One Election, and the abrogation of Article 370.

Environmentalist Sundarlal Bahuguna, donated by his wife, Vimla Bahuguna.



## Recent Acquisitions

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- ➔ Environmentalist Sundarlal Bahuguna, donated by his wife, Vimla Bahuguna.

## PRIVATE PAPERS VS. PERSONAL PAPERS

**Private Papers:**  
Includes private correspondences with other personalities, different from personal papers.

**Personal Papers:**  
Correspondence and documents held in a personal capacity are excluded.

**Official Records:**  
Held by various government departments and ministries.

## NATIONAL ARCHIVES OF INDIA

- ➔ **Role:** Acquires papers that donors agree to declassify.
- ➔ **Collection:** Includes papers of Mahatma Gandhi, Dr. Rajendra Prasad, Dadabhai Naoroji, Purushottam Das Tandon, Maulana Azad, Minoo Masani, Sardar Patel, Keshav Dev Malviya, and others.

## DECLASSIFICATION

**Public Records Rules, 1997:** Covers the declassification of all kinds of records and correspondence in India.

**Responsibility:** Respective organizations are responsible for declassifying official records.

**Time Frame:** Records should ordinarily be declassified every 25 years.

**Definition of Public Records:** Includes records related to the central government and any ministry, department, or office, including the PMO and the President's Office.

**Private Papers:** The 1997 Rules do not grant sweeping powers for papers owned by private individuals and families; access to these is voluntary.

## Declassification in the US

- ➔ **Library of Congress Manuscript Division:** Holds Personal Papers and significant organizational records in American history.
- ➔ **National Archives and Records Administration (NARA):** Official depository for US government records, similar to the National Archives of India.

## Summary

The Prime Ministers' Museum & Library (PMML) has implemented a new policy limiting the declassification conditions for private papers to ensure a balance between historical access and privacy. This includes a five-year embargo on new papers and the release of long-held documents. The distinction between private and personal papers is clarified, with a focus on the accessibility and preservation of historical documents.

## Emergency in India

### Why in News?

On June 25, 2024, India commemorated fifty years since the National Emergency (1975-1977), a time marked by the suspension of civil liberties, press restrictions, mass arrests, and postponed elections.

### Aftermath of the National Emergency (1975)

#### POLITICAL CHANGES

##### 1977 Elections:

- Four major opposition parties united to form the Janata Party.
- This coalition led to the establishment of India's first non-Congress government.

### 44th Constitutional Amendment Act, 1978

#### Reversal of 42nd Amendment Act (1976)

- Limited the President's authority to declare a National Emergency under Article 352.
- Required written advice from the Cabinet and parliamentary approval within a month.
- Restricted the emergency period to six months unless renewed by a special majority in Parliament.
- Restored the ability of the judiciary to review emergency proclamations.
- Restricted the grounds for an emergency to armed rebellion, war, and external aggression.
- Limited the duration of President's Rule (Article 356) in states to one year, extendable by six months with parliamentary approval.



## The Shah Commission Report

- **Formation:** Created by the Janata government to investigate the imposition and effects of the emergency.
- **Findings:** The report was highly critical, stating that the decision was unilateral and led to a violation of civil liberties during the emergency period.

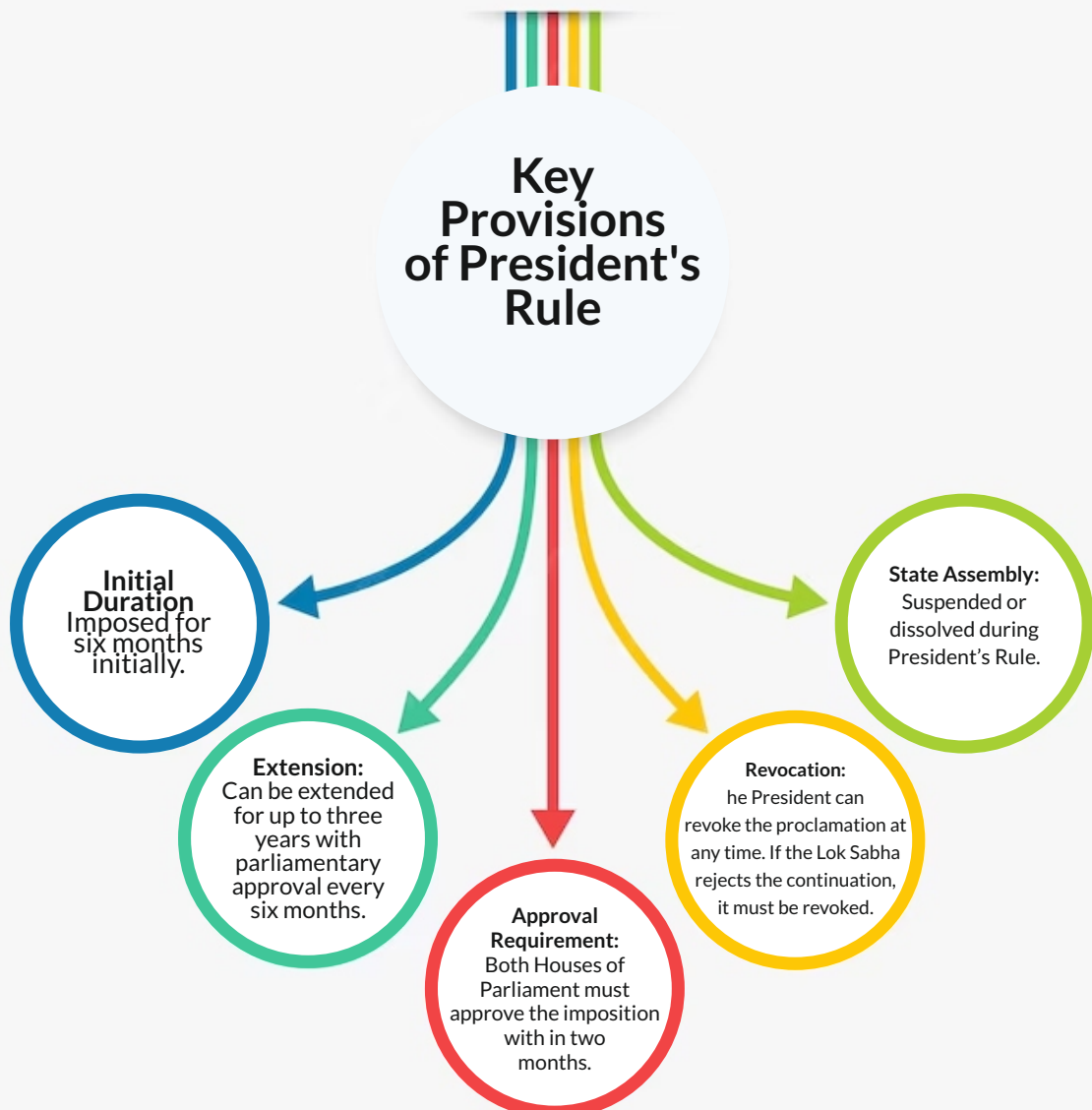
## During National Emergency

### Powers of Parliament

- **Extension of Lok Sabha's Term:** Parliament can extend the Lok Sabha's term by one year at a time.
- **Legislation on State Subjects:** The central government can legislate on state matters.
- **Financial Provisions:** The President can alter constitutional provisions on financial resource allocation between the center and states with parliamentary approval.

### President's Rule

- **Provision:** Article 356 allows the central government to take direct control of a state when it cannot function according to constitutional provisions.
- **Functions Assumed by President:** The President can take over all or some functions of the state government.





## BALANCE OF PAYMENTS

### Why in News?

India recorded a current account surplus in Q4 of the 2023-24 financial year, the first surplus in 11 quarters. Despite the Q4 surplus, the full-year data indicates a current account deficit, primarily due to capital goods imports aimed at boosting exports.

### BALANCE OF PAYMENTS (BOP)

- **Definition:** The BoP is a comprehensive ledger that records all financial transactions between a country and the rest of the world, indicating inflows and outflows of money.
- **Purpose:** It reflects the demand for the rupee compared to foreign currencies and helps determine the exchange rate of the rupee.
- **Management:** The Reserve Bank of India (RBI) manages the BoP by adjusting foreign exchange reserves to maintain the rupee's competitiveness.

## Components of the BoP

- **Trade Account:** Tracks the import and export of physical goods. A trade deficit occurs when imports exceed exports.
- **Services Account:** Tracks the trade in services such as banking, IT, and tourism, including remittances from Indians working abroad.
- **Transfers and Income:** Includes transactions such as gifts, pensions, and income from investments.

### Capital Account:

- **Investment Flows:** Records investments such as Foreign Direct Investment (FDI) and Foreign Institutional Investment (FII).

## Current Account Deficit (CAD)

- **Economic Indicator:** CAD is not always negative for a developing economy like India. It can indicate strong domestic demand and investment in capital goods.
- **Sustainable CAD:** A CAD of 1.5%-2% of GDP is consistent with India's target GDP growth rate of 7%-8%.

## Q4 (2023-24) Highlights

- **Trade Deficit:** India experienced a deficit in the trade of goods during Q4.
- **Surplus in Invisibles:** There was a surplus in invisible transactions such as services, transfers, and income.
- **Capital Account Surplus:** A net surplus of \$25 billion in Q4 due to inflows from foreign investments.

## Digital Bharat Nidhi

### Why in News?

The **Department of Telecommunications (DoT)** has released draft rules to operationalize the **Digital Bharat Nidhi (DBN)**, replacing the erstwhile **Universal Service Obligation Fund (USOF)**. Contributions from telecom companies towards DBN will first be credited to the **Consolidated Fund of India**, with periodic transfers to DBN.

## Operationalization of Digital Bharat Nidhi

The Centre will appoint an "administrator" to oversee the implementation of DBN, selecting "DBN implementers" through bidding or inviting applications from eligible persons. The administrator will determine funding modalities on a case-by-case basis, ensuring efficient and flexible allocation of funds.

## Utilization of DBN Funds

Funds collected under DBN will promote universal telecommunication services in underserved rural, remote, and urban areas. Additionally, funds will support research and development (R&D) of telecommunication services, technologies, and products, and provide consultancy assistance and advisory support to improve connectivity and introduce new telecommunication services and products.

### Project Qualification for DBN Funding

Projects must meet criteria such as provisioning telecommunication services in underserved rural areas, introducing next-generation technologies, promoting sustainable and green technologies, and fostering R&D towards Atmanirbhar Bharat. Networks established with DBN funding must be shared on a non-discriminatory basis to ensure broader access.

### Background of Universal Service Obligation Fund (USOF)

USOF was funded by a **5% Universal Service Levy** on telecom operators' **Adjusted Gross Revenue (AGR)**. The Telecommunications Bill, 2023, aims to regulate telecommunications activities, **replacing** older acts and amending the **Telecom Regulatory Authority of India (TRAI) Act, 1997**.

### Features of the Telecommunications Bill, 2023

The Bill grants the Government of India (GoI) exclusive powers to lay telecom infrastructure, operate networks, and provide services. Other stakeholders will need prior authorization from the GoI for providing telecommunication services, establishing, operating, maintaining, or expanding networks, and possessing radio equipment. The GoI can direct telecom services to transmit specific messages for public interest and take control of services in national security or war situations. The Bill also regulates the conditions under which press messages may be intercepted or prohibited.

### Spectrum Assignment and Telecommunication Services

**Spectrum** will be assigned primarily through **auctions**, with administrative allocations for specific uses such as national security, disaster management, and transport. The Bill includes provisions for administrative allocation of spectrum for satellite broadband services and allows telecom companies to reform spectrum use, harmonize spectrum across geographies, and share, trade, or lease spectrum. **Telecommunication services** defined under the Bill include **voice calling, SMS, internet and broadband services, data communication services, interpersonal communication services, and satellite communication services**.

### Powers of Interception and Search

The GoI may **intercept, monitor, or block messages** on grounds such as public safety, national security, friendly relations with other countries, prevention of offenses, and public order. Telecom services may be suspended on similar grounds. Authorized officers can search premises or vehicles for unauthorized telecom networks or equipment.



## Temporary Possession and Standards

The GoI may **temporarily** possess telecom infrastructure, networks, or services during public emergencies. It can prescribe standards for telecom equipment, infrastructure, networks, and services to ensure compliance and safety.

## Right of Way

Telecom infrastructure providers can seek the right of way over public or private property to establish infrastructure. Private entities can negotiate terms for laying infrastructure, ensuring minimal disruption and fair compensation.

## User Protection and Identification

The GoI may implement measures to protect users, including obtaining prior consent for advertising messages, creating Do Not Disturb registers, and providing mechanisms to report malware or unwanted messages. Telecom service providers must establish online grievance redressal mechanisms. Biometric authentication and identification of users are mandated to curb fraud, with penalties for furnishing false information or impersonation.

## Amendments to TRAI

The Bill specifies the professional experience required for appointments to TRAI, allowing individuals from the private sector to be eligible. It removes the requirement for GoI to seek TRAI recommendations for new service providers and licensing terms, streamlining the process.

## Offenses and Penalties

The Bill outlines various criminal and civil offenses related to unauthorized telecom services, network access, and equipment possession. A tiered adjudication process involving an adjudicating officer, appeals committee, and the **Telecom Disputes Settlement and Appellate Tribunal (TDSAT)** is established to resolve disputes.

## Role of TDSAT

TDSAT is empowered to adjudicate disputes between licensors and licensees, service providers, and between service providers and consumer groups, ensuring a fair and structured resolution process

## Key Issues and Analysis

### Interception of Communication

The Bill may enable **mass surveillance, potentially violating the right to privacy**. It lacks procedural safeguards mandated by the Supreme Court (SC) in the case of interception of communication. Currently, these safeguards are provided through rules under the **Indian Telegraph Act of 1885**, which the Bill replaces. The Bill states that interception orders may remain in effect as long as a public emergency or threat to public safety exists. Orders can be issued by specially authorized officers from the central or state government, but the Bill does not provide an oversight mechanism for these orders.



## Supreme Court on Interception and Fundamental Rights

In *PUCL vs Union of India* (1996), the SC mandated a fair procedure to regulate interception powers, safeguarding citizens' rights under Articles 19(1)(a) and 21 of the Indian Constitution. The SC's safeguards include:

- **Establishing Necessity:** Orders should highlight the objective and necessity for interception.
- **Purpose Limitation:** Use of intercepted material should be minimal and necessary to meet the objective.
- **Time Limit:** Initial orders are valid for two months, with possible extensions up to six months.
- **Issuance of Orders:** High-ranked officials (e.g., Home Secretary) should issue orders, with mandatory review by a committee headed by the Cabinet Secretary.
- **Oversight Mechanism:** Oversight should be conducted by a committee of government officials exclusively.

In *KS Puttaswamy's* (2017) case, the SC recognized the right to privacy as a facet of the right to life under Article 21 of the Constitution. In *Anuradha Bhasin vs Union of India* (2020), the SC held that freedom of speech and expression, and freedom of trade and business over the Internet, are protected under Articles 19(1)(a) and 19(1)(g) of the Constitution.

## Other Issues

- The Bill's classification as a **money bill limits Rajya Sabha's scrutiny**. Ministries of Finance, Corporate Affairs, and Commerce and Industry argue that DoT cannot legislate on subjects outside its domain that have revenue implications for the Gol.
- The Bill gives Gol the power to issue licenses for telecom networks and services, raising questions about whether they should be regulated similarly. Excluding TRAI from licensing consultations weakens its role.
- The Bill does not protect employees from liability if they lack knowledge or have exercised due diligence in case of offenses by companies. Directors, managers, or officers are not held liable for connivance or neglect.
- The role of Rajya Sabha in passing a money bill is limited to providing recommendations; it cannot reject or amend the bill.
- Some definitions, such as wireless equipment, may need re-evaluation, as mobile phones could fall under this category, implying the need for prior authorization to possess a mobile phone.
- Experts argue that Gol cannot coerce states or municipal corporations to impose right-of-way rules, as land is a state subject. Biometric authentication for user identification raises privacy concerns. It is unclear how the provisions impact end-to-end encrypted calls over platforms like WhatsApp.
- The Bill may lead to dual regulation for online services like Google Pay and Paytm, which offer messaging as an ancillary service.



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### Significance of the Bill

The Bill enhances security measures by allowing government intervention in telecom services during emergencies, focusing on national security and public safety. It balances security with the need to safeguard press freedom, with specific rules for accredited correspondents.

By replacing outdated laws, the Bill aims to create a regulatory environment aligned with current technological advancements and societal needs. The Bill's provisions for spectrum assignment, both through auction and administrative allocation, reflect a modern approach to resource management, acknowledging the benefits of administrative assignment for specific uses.

### Project PARI

#### Why in News?

The **Ministry of Culture** has initiated Project PARI (Public Art of India), a significant endeavor to exhibit the **nation's rich artistic heritage**. The inaugural phase is being conducted in Delhi, in conjunction with the 46th session of the World Heritage Committee, with the aim of enhancing the city's aesthetic and cultural ambiance.

#### About Project PARI

Project PARI is designed to create **public art that merges traditional practices with modern themes and techniques**. The project will be implemented by the Lalit Kala Akademi and the National Gallery of Modern Art. The artworks take inspiration from diverse Indian art forms such as:

- **Phad Paintings (Rajasthan)**
- **Thangka Paintings (Sikkim/Ladakh)**
- **Gond Art (Madhya Pradesh)**

Additionally, some sculptures draw from World Heritage Sites like Bhimbetka, particularly highlighting India's seven natural World Heritage Sites. The sculptures for Project PARI celebrate nature, Indian concepts like Natyashastra, historical figures like Gandhi, and ancient knowledge systems.

A key feature of Project PARI is the **inclusion of women artists**, underscoring India's dedication to empowering its **NARI SHAKTI** (women's power). This project turns urban areas into open-air art galleries, making art accessible to everyone. It fosters dialogue, contemplation, and inspiration, thus enriching the cultural fabric of the nation.

#### Lalit Kala Akademi

The Lalit Kala Akademi is an **autonomous organization** registered under the **Societies Registration Act of 1860**. It serves as the **government's** premier cultural body in the field of visual arts in India, **fully funded** by the **Ministry of Culture**. The academy promotes Indian arts both domestically and internationally, and it organizes an international contemporary art exhibition in New Delhi every three years.

## Headquarters and Regional Centers:

- HQ: New Delhi
- Regional Centers: Bhubaneswar, Chennai, Kolkata, Lucknow, Shimla

## Publications:

- Lalit Kala Contemporary (English)
- Lalit Kala Ancient (English)
- Samkaleen Kala (Hindi)

The Sangeet Natak Akademi (SNA) was the first of the three academies to be established in 1953, followed by the Lalit Kala Akademi (LKA) and the Sahitya Akademi (SA).

10/07/24

# Uniform Charge Structure for Stock Market Institutions



## Why in News?

The Securities and Exchange Board of India (SEBI) has mandated that stock exchanges and other market institutions implement a uniform charge structure for all members, regardless of transaction volume.

Traditionally, stock exchanges have levied transaction fees on stockbrokers based on their trading volume, with brokers handling higher volumes paying lower fees per transaction.

### Need for SEBI's Intervention:

- The directive aims to establish a "level playing field" for all brokers by eliminating volume-based charge disparities.
- There was a mismatch between the daily charges collected by brokers and the monthly payments made to exchanges, leading to brokers collecting more than they paid.
- SEBI raised concerns about possible misleading disclosures to clients regarding exchange charges.
- The current charge structure could potentially impede equal and fair access for all market participants.

## Key Points on the Directive:

- SEBI has mandated that charges recovered from end clients must accurately reflect the charges imposed by exchanges.
- The regulator has suggested considering the current per-unit transaction charges to potentially reduce costs for end clients.

## Potential Impact on Stockbrokers:

- The discrepancy between what brokers collect from clients and pay to exchanges is a significant revenue source for some brokers. The impact of the directive will vary based on a broker's reliance on this income stream and the availability of alternative revenue sources.
- Discount brokers, who often benefit from volume-based discounts, are expected to be most affected.
  - For example, Zerodha earns approximately 10% of its revenue from the difference between charges paid and collected.
  - In FY24, this difference constituted a small percentage of Geojit Financial's total income and profit before tax.

## National Security Council

### Why in News?

The central government has appointed Rajinder Khanna, former RAW chief, as Additional National Security Adviser (ANSA), a newly created post.

### Key Changes in the Structure of NSCS:

- The Centre has restructured the reporting relationships within the National Security Council Secretariat (NSCS) and between the National Security Advisor (NSA) and the Union ministries.
- The NSA now presides over a larger organization, with an ANSA and three deputy NSAs. His role is now more advisory and less operational.
- The NSA will deal with advisory bodies such as the National Security Advisory Board and the Strategic Policy Group.
- The Chief of Defence Staff (CDS) and the three service chiefs, along with the Union defence, home, foreign, and other secretaries, are required to report to the NSA in addition to their daily reporting to a minister.
- The ANSA will act as the gatekeeper in the communication chain between six mid-level unit heads (three Dy NSAs and three service officers) and the NSA.

### National Security Advisor (NSA):

- The NSA is the senior member of the Indian National Security Council and the Prime Minister's principal advisor on foreign and national security policy.
- Receives all intelligence reports (R&AW and IB) and coordinates their presentation to the PM.
- Participates in high-level diplomatic conversations on security issues.
- Serves as the Secretary of the Prime Minister-led National Security Council.

### National Security Council Secretariat (NSCS):

- Overseen by the Prime Minister, with the NSA as its secretary. It serves as the apex body for all matters concerning internal and external security.
- It has four verticals: Strategic Planning, Internal Affairs, Intelligence and Technology, Military.

### National Security Council (NSC):

- A three-tiered organization overseeing political, economic, energy, and security issues of strategic concern.
- Established by the Vajpayee government in 1998 following the nuclear tests by India & Pakistan.
- Operates within the executive office of the Prime Minister of India, liaising between the government's executive branch and the intelligence services, advising leadership on intelligence and security issues.
- Members include the NSA, Deputy and Additional National Security Advisors, Ministers of Defence, External Affairs, Home, Finance, and the Vice Chairman of the NITI Aayog. The military has no representation in this tier.
- The NSC is headed by the Prime Minister. The NSA acts as the secretary of the NSC. (Brajesh Mishra was the first NSA).
- Headquarters: New Delhi.
- Primary objective: To provide authoritative and holistic assessments of India's security challenges across military, internal security, economic, technological, and external relations domains.

## Organizational Structure:

### Strategic Policy Group (SPG):

**1**

Principal mechanism for inter-ministerial coordination and integration of relevant inputs in formulating national security policies.

**3**

Main task: Make policy recommendations to the National Security Council.

**2**

Headed by the NSA. It includes the chiefs of the Armed Forces, the Intelligence Bureau, and Research and Analysis Wing.

**4**

The Cabinet Secretary coordinates the implementation of SPG decisions by the Union Ministries, departments, and State governments.

### National Security Advisory Board (NSAB):

- Advises the Council on issues relating to national security that the Council may refer to.
- Consists of a convenor and other eminent persons with expertise in foreign affairs, external security, defence and armed forces, strategic analysis, etc.
- Undertakes long-term analysis and provides perspectives on issues of national security.
- The first NSAB was set up in 1998 with K. Subrahmanyam as its convenor.

The restructuring aims to enhance the efficiency and effectiveness of the NSC in addressing India's complex security challenges, ensuring that all relevant inputs are considered in national security policy formulation and implementation.

## Geospatial Analysis of Maternal Healthcare for Tribal Populations in Gujarat

### Why in News?

A UN report in May 2023 highlighted that India accounted for 17% of global maternal deaths in 2020, holding the highest share among the 10 countries responsible for 60% of global maternal deaths, stillbirths, and newborn deaths. This underscores the need to focus on maternal healthcare to achieve the Sustainable Development Goals (SDGs) aimed at improving maternal and child health outcomes.

### Study Focus

The study examines maternal and pregnancy care in Gujarat's tribal population, which constitutes 14.8% of the state's total population. It emphasizes geographical and socio-economic factors affecting access to healthcare facilities. The study uses data from the National Family Health Survey and geographical information system (GIS) data to analyze healthcare accessibility across 46 districts with significant tribal populations.

## Findings

- **Healthcare Disparities:** The study reveals disparities in healthcare access between urban and rural areas, with rural areas facing more significant challenges.
- **ANC and PNC Coverage:** Coverage of antenatal care (ANC) and postnatal care (PNC) is lower in districts like Banaskantha, Mahisagar, Sabarkantha, Dahod, and Bharuch. In these areas, pregnancy care falls below WHO-prescribed thresholds.
- **Transportation Issues:** Distance and time to healthcare facilities significantly impact access, with many areas requiring extensive travel to reach hospitals.
- **Infrastructure and Affordability:** Affordability and infrastructure remain primary concerns, particularly in rural areas.



## Implications

The study highlights the need for targeted interventions to improve maternal and child healthcare in tribal areas. Implementing policies to enhance accessibility and infrastructure, particularly in underserved regions, is crucial. Ensuring affordable and equitable healthcare access for vulnerable populations will help address the maternal healthcare crisis.

# Steps Taken in India to Reduce Maternal Mortality Rates

## 1. National Health Mission (NHM)

The NHM, launched in 2013, includes the National Rural Health Mission (NRHM) and the National Urban Health Mission (NUHM). It aims to provide accessible, affordable, and quality healthcare to the rural and urban population, with a special focus on reducing maternal and child mortality.

## 2. Janani Suraksha Yojana (JSY)

JSY is a safe motherhood intervention under the NHM, launched in 2005, that promotes institutional deliveries by providing cash incentives to pregnant women, especially those from low-income and disadvantaged backgrounds.

## 3. Janani Shishu Suraksha Karyakram (JSSK)

Launched in 2011, JSSK aims to eliminate out-of-pocket expenses for pregnant women and sick infants by providing free drugs, diagnostics, diet, delivery, and transport services in public health institutions.

## 4. Pradhan Mantri Surakshit Matritva Abhiyan (PMSMA)

PMSMA, launched in 2016, provides assured, comprehensive, and quality antenatal care to all pregnant women on the 9th of every month. The initiative focuses on early detection and management of high-risk pregnancies.

## 5. LaQshya Program

LaQshya (Labour Room Quality Improvement Initiative) aims to improve the quality of care in labor rooms and maternity operation theatres in public health facilities. It focuses on ensuring respectful maternity care, enhancing labor room services, and reducing maternal and newborn mortality.

## 6. Midwifery Services

The government has introduced professional midwifery services to provide quality maternal and newborn care. The initiative aims to create a cadre of nurse practitioners in midwifery to offer specialized care during childbirth.

## 7. Mother and Child Tracking System (MCTS)

MCTS is an online system that tracks pregnant women and children to ensure timely and complete ANC, PNC, and immunization services. It helps in monitoring and ensuring the delivery of essential maternal and child health services.

## 8. Intensified Mission Indradhanush (IMI)

IMI aims to reach every child and pregnant woman who has been left out of routine immunization programs. It focuses on increasing full immunization coverage to reduce maternal and infant mortality rates.

## 9. Comprehensive Abortion Care (CAC) Services

To provide safe and legal abortion services, the government has expanded access to Comprehensive Abortion Care (CAC) services, ensuring the availability of trained providers and equipment in public health facilities.

## 10. Nutrition Programs

Programs like the Integrated Child Development Services (ICDS) and Pradhan Mantri Matru Vandana Yojana (PMMVY) aim to improve the nutritional status of pregnant women, lactating mothers, and children to prevent malnutrition-related complications during pregnancy and childbirth.

## Summary

India has implemented several programs and initiatives, including NHM, JSY, JSSK, PMSMA, LaQshya, professional midwifery services, MCTS, IMI, CAC services, and nutrition programs, to reduce maternal mortality rates. These efforts focus on providing comprehensive antenatal and postnatal care, promoting institutional deliveries, enhancing healthcare quality, and ensuring nutritional support for pregnant women and infants.

11/07/24

### The Supreme Court upholds Muslim women's maintenance rights after divorce under secular law

The secular provisions of Section 125 of the Code of Criminal Procedure (CrPC) grant maintenance to divorced Muslim women, according to a ruling by the Supreme Court of India. This ruling emphasizes that the Muslim Women (Protection of Rights on Divorce) Act, 1986, does not supersede the remedy granted by Section 125 CrPC.

#### Key Judgment Highlights

The ruling of the court is consistent with the views put up by senior counsel Gaurav Agrawal, the amicus curiae, who highlighted that divorced Muslim women are subject to the secular statutory provisions of Section 125 CrPC. With this verdict, Muslim women who have divorced would have the same access to maintenance rights as other Indian women.

A Muslim man appealed a Telangana High Court ruling, and Justices B.V. Nagarathna and Augustine George Masih handled the matter in a concurring opinion. Despite the man's argument that his wife should only have access to the 1986 Act, the High Court maintained a Family Court's judgment providing her interim maintenance under Section 125 CrPC.

#### Arguments and Counterarguments:

The appellant, Mohd. Abdul Samad, contended that Section 125 CrPC ought to yield to the 1986 Act, which is a unique legislation. He argued that a divorced Muslim woman is only entitled to maintenance during the iddat period, after which the obligation ends, in accordance with the 1986 Act. On the other hand, regardless of the wife's religious beliefs, Section 125 CrPC requires monthly maintenance if she hasn't remarried and her ex-husband has enough money but hasn't supported her.



## Children's Maintenance

The 1986 Act restricts a Muslim man's duty to support his children to two years from the date of birth, whereas Section 125 CrPC mandates maintenance until the children attain the age of majority. This is only one of the significant differences between the two statutes that the court emphasized.

## Constitutional Commitment and Harmonious Interpretation:

Judge Masih pointed out that the fundamental guarantee of a life of dignity for women, irrespective of their faith, is reflected in Section 125 CrPC. He made it clear that a divorced Muslim woman's ability to request support under Section 125 CrPC is unaffected by the 1986 Act. The woman is still free to choose whether to seek for maintenance under any clause depending on her financial situation. Courts are urged to use a meaningful and harmonious interpretation of both statutes.

*With this historic decision, the Supreme Court has once again demonstrated its commitment to preserving Muslim women's rights to maintenance, dignity, and welfare under secular law.*

## Budget overview

On Wednesday, Rajasthan Deputy Chief Minister Diya Kumari presented the state budget for 2024 - 25, which emphasizes new policies in finance, agriculture, urban development, tourism, transport and a tech-driven economy. The ₹4.95 lakh crore budget aims to fulfill key promises of the ruling BJP.

## Key allocations

₹27,000 crore for the health sector and ₹15,000 crore to provide tap water connections to 25 lakh rural households are among the key disbursements. The budget also proposes to create 4 lakh jobs in 5 years through reforms and export promotion.

## Development initiatives

Ms Kumari highlighted plans for green infrastructure, financial stewardship and express highway construction to boost growth and public welfare.

The green budget, along with provisions for new tourism, sports and data center policies, aims to attract investments and create opportunities.

## OPPOSITION REACTIONS

The budget faced disruptions from Congress legislators over the issue of the old pension scheme. While the BJP praised the budget as a 'welfare document', the opposition termed it 'disappointing' and inadequate to meet public expectations.



# India and Russia agree to pursue trade in national currency

## Historic agreement

India and Russia have agreed to establish a national currency settlement system, Russian Embassy Charge d'Affaires Roman Babushkin announced after Prime Minister Narendra Modi's recent visit to Russia.

Babushkin described the visit as "historic and game-changing" and criticized Western support for Ukraine.

## Strengthening economic ties

During Modi's July 8-9 visit, he held talks with President Vladimir Putin focusing on economic cooperation. Trade between India and Russia has increased since the imposition of Western sanctions on Russia in 2022, especially in the energy sector. Babushkin highlighted the importance of a currency settlement system in his discussions.

## Addressing military recruitment

The leaders also discussed Indian citizens being fraudulently recruited into the Russian army. Babushkin has assured that these individuals will be returned soon and stressed that Russia never had the intention to recruit Indians into its army.

## Global impact and Ukraine crisis

Babushkin underlined the global importance of the Modi – Putin meeting and also advocated Ukraine's neutrality and non-alignment. He criticized Western countries for supporting Ukraine and mentioned the emergence of new independent power centers like India and Russia in the global arena.



# San Fernando becomes

first ship to arrive at Kerala's Vizhinjam Port with 1,930 containers

## Historic arrival at Vizhinjam Port

In a historic milestone, Vizhinjam International Port, India's first deep-water container transshipment port, welcomed its first mothership on Thursday morning.

The Marshall Island-flagged container ship 'San Fernando' arrived from Xiamen Port, China, marking a new chapter in India's maritime history.

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## Ship details and operations

Owned by SFL Corporation Limited, chartered by Maersk (AP Moller Group) and managed by Bernhard Schulte Ship Management, Singapore, San Fernando carried 1,930 containers.

Adani Port pilots boarded the ship at 7:45 am and guided it through the port's buoy channel to the berth, assisted by 4 tugs.



## Ceremonial welcome

The ship was accorded a water salute on its arrival. The unloading of cargo from the ship began at 2 pm, with the ship scheduled to leave for Colombo on Friday after an official welcome by Chief Minister Pinarayi Vijayan and Union Shipping Minister Sarbananda Sonowal.

## Background of the port project

The Rs 7,700 crore Vizhinjam port project in partnership between the Kerala government and the Adani Group began in December 2015. Despite the delay, the trial run of the port will officially begin on July 12, ahead of its revised commissioning in December 2024.

## India hosts BIMSTEC foreign ministers amid Myanmar crisis

### Call for internal solution

During the first BIMSTEC foreign ministers' meeting on Thursday, External Affairs Minister S. Jaishankar stressed the need for the Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) to address regional challenges internally.

They have highlighted the urgent need for capacity building and economic cooperation within the grouping, which includes Nepal, Bhutan, India, Bangladesh, Myanmar and Thailand.

### Myanmar instability concerns

The meeting is taking place against the backdrop of instability in Myanmar, where the military junta is facing significant resistance from ethnic armed organizations (EAOs). This instability poses challenges to development and connectivity projects in the region.

### Focus on connectivity and stability

After meeting Myanmar Deputy Prime Minister U Than Swe, Jaishankar discussed important connectivity projects and border stability. While India's humanitarian assistance to Myanmar is limited to displaced populations and military personnel taking refuge in Mizoram.

The country continues to cooperate with Myanmar and Thailand to combat transnational crimes such as cyber, narcotics and illegal arms trafficking.

## Indian ship crew wins 'Exceptional Bravery' award for rescue operations in Red Sea

### IMO Award for Exceptional Bravery

Captain 'Avilash Rawat' and his crew on board the oil tanker Marlin Luanda have been declared winners of the International Maritime Organisation (IMO) 2024 Award for Exceptional Bravery at Sea.

They have been awarded for their 'exceptional courage' during the Red Sea rescue operation.

### Valiant response to missile attack

On January 26, 2024, Marlin Luanda, carrying 84,147 tonnes of naphtha, was hit by an anti-ship missile fired by Iran-backed Houthi rebels while en route from Suez to Incheon.

The explosion ignited a cargo tank, posing a major fire risk. 'Captain Rawat' had swiftly organized firefighting efforts, while ensuring the safety of the crew and maintaining the ship's navigability.

### Assistance from INS Visakhapatnam

Captain Brijesh Nambiar and the crew of Indian Naval Ship INS Visakhapatnam received a letter of commendation for their cooperation during the incident. Despite extreme danger and threat of further attacks, the Marlin Luanda crew doused the fire using seawater after their foam supplies were exhausted.



## BOOST FINANCING FOR GREEN PROJECTS

### Why in the news ?

The Finance Minister has placed a greater emphasis on green growth in his budget speeches, in line with PM Modi's declaration at COP26 that India will reach 500GW of fossil fuel-free capacity by 2030 and net zero by 2070.

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The Finance Minister has placed a greater emphasis on green growth in his budget speeches, in line with PM Modi's declaration at COP26 that India will reach 500GW of fossil fuel-free capacity by 2030 and net zero by 2070.

It is imperative that these promises be reaffirmed in the Budget speech. The usage of fossil fuels must peak, plateau, and then decline as quickly as feasible if India is to achieve net zero. In order to achieve net zero, this would reduce the expenses for businesses and the economy.

To prevent making large, unfavorable capital investments in an economy dependent on fossil fuels, investors should take this viewpoint into account before making important investment decisions.

In a cutthroat market, private investment is developing renewable energy (RE) capacities at a falling cost. Renewable energy is currently less expensive than new thermal power when paired with storage for continuous supply. It will take far greater RE capacities to reach 500GW of fossil fuel-free capacity by 2030, which means that additional RE bids will need to be invited.

This goal ought to be made public. Large-scale storage is necessary to fulfill changing demand because renewable energy (RE) output is sporadic and rigid. A strong strategy to create storage through an invitation to bid should be included in the budget speech. This would motivate prospective investors to get ready for the rapidly expanding demand for massive storage.

Hydro pump storage in rivers and off-rivers are both feasible choices, while concentrated solar thermal energy stored in molten salt for use in conventional thermal turbines is a well-developed and reasonably priced technology. These storage initiatives feature large upfront expenditures, lengthy payback periods, and low ongoing expenses.

## Centre amends rules to broaden the administrative role of J&K L-G

### Why in the news?

The modifications increase the Lieutenant Governor's (L-G) jurisdiction over matters pertaining to public order and law enforcement in Jammu & Kashmir. By changing the Transaction of Business Rules, the Union Ministry of Home Affairs (MHA) increased the L-G's administrative authority. With the approval of the Finance Department beforehand, these revisions provide greater authority on the L-G with regard to matters pertaining to law enforcement, public order, All India Services (AIS), and their postings and transfers. The L-G must be consulted first on recommendations for the nomination of the Advocate-General, Law Officers, and judgments about criminal sanctions or appeals.

J&K's unique status under Article 370 of the Constitution was removed on August 5, 2019, resulting in the division of the former state into two Union Territories: J&K and Ladakh, the latter of which lacks an assembly. Since June 2018, J&K has been governed by the Central government, which has pledged to reinstate statehood following Assembly elections. Elections for the J&K Assembly must be held by the Election Commission by September 30, 2024, as directed by the Supreme Court. New provisions outlining the L-G's responsibilities were added to the modified Rules under Section 55 of the Jammu and Kashmir Reorganisation Act, 2019, which were issued by the MHA.



According to the notification, the Chief Secretary must provide any plan to the L-G regarding "Police," "Public Order," "All India Service," and "Anti Corruption Bureau" that needs the Finance Department's approval in advance. Furthermore, through the Chief Secretary and the Chief Minister, suggestions for the appointment of the Advocate-General and other Law Officers to support legal procedures must be made to the L-G for approval.

Appeals and recommendations for prosecution sanctions must also be sent to the L-G by the Department of Law, Justice, and Parliamentary Affairs through the Chief Secretary. The L-G should also be consulted on issues pertaining to the Forensic Science Laboratory, the Directorate of Prosecution, and prisons.





# FOOD INFLATION ACCELERATES TO

## 9.4%, highest in 6 months

### Why in the news?

Costlier fruits, vegetables, and cereals increased food prices by 9.4% in June, a six-month high. The retail inflation rate increased from 4.8% in May to a four-month high of 5.08% as a result of this jump.

Inflation for rural consumers grew to 5.66% from 5.3% in May, while prices for urban consumers jumped by 4.4% from 4.2%. The rate of food inflation in cities was 9.55%, while it was 9.2% in rural areas.

Retail inflation is above the central bank's 4% objective even though it hasn't exceeded 6% since September 2023. Given that the Reserve Bank of India is waiting for inflation to return to its target rate, the Consumer Price Index (CPI) data from June lessens the chance of an interest rate drop this year. Retail inflation was 4.87% in June 2023, with a 4.55% increase in the food price index.

Vegetable prices increased by 29.3% in June, up from 27.3% in May, due to the warmth and delayed monsoon start in some areas of the nation. This is the ninth consecutive month of double-digit price rises.

Fruit prices grew by 7.15%, but pulse prices increased by 16.1%, marking the twelfth straight month of 10% inflation.

### "Significant Concern"

Dharmakirti Joshi, the chief economist of Crisil, acknowledged that food inflation in vegetables and grains was a significant worry, but he also voiced optimism that the monsoon's advancement would help contain it in the upcoming months.

He issued a warning that growing international freight costs, rising crude prices, and telecom rate hikes could cause non-food inflation, which dropped for the seventeenth consecutive month to a record low of 2.3% in June, to rebound.

Because manufacturers are raising their costs, personal care items continue to see significant inflation of 8.2%, according to Madan Sabnavis, chief economist at Bank of Baroda.



## APCNF Program in Andhra Pradesh Wins Gulbenkian

# Prize for Humanity in 2024

The Government of Andhra Pradesh's Andhra Pradesh Community Managed Natural Farming (APCNF) initiative has won the esteemed Gulbenkian Prize for Humanity 2024. This acknowledgment highlights the program's critical function in promoting sustainable agriculture and building global resilience to climate change.

### Acknowledgment on an International Level

The announcement was made on July 11 at a ceremony in Lisbon, Portugal, when the jury's head and former German federal chancellor, Dr. Angela Merkel, announced the winners. International specialists were present at the occasion, along with dignitaries such as the Portuguese president and other government representatives. Dr. Rattan Lal, a renowned soil scientist from the United States, and SEKEM, an Egyptian organization that promotes biodynamic farming, split the EUR 1 million prize with the APCNF program. The Calouste Gulbenkian Foundation gave the prize to recognize their joint efforts in developing sustainable farming practices through research and useful applications.

### Overall Advantages

In addition to improving soil health, the APCNF program lowers carbon emissions, conserves biodiversity, and lessens deterioration of the land and water. Participating farmers gain instant access to lower expenses, more consistent harvests, higher revenues, and better health outcomes; this supports smallholders' economic sustainability and, in particular, the empowerment of women farmers.

### The Effects of APCNF

A state-wide program called Andhra Pradesh Community Managed Natural Farming (APCNF) was introduced in 2016 to help smallholder farmers in the region switch from conventional, chemical-intensive farming to natural farming methods. Techniques like using organic residues, minimizing tillage, reintroducing native seeds, and diversifying crops to incorporate trees are all part of this shift. The program, which is run by the Farmers Empowerment Corporation, or Rythu Sadhikara Samstha (RySS), has registered over a million farmers on 500,000 hectares in Andhra Pradesh, making it the largest agroecology program in the world in terms of participation.

# Food Security Across the Globe and Climate Resilience

Initiatives like APCNF show a scalable strategy for sustainable agriculture in the face of growing climate problems endangering global food security and ecosystem stability. The program, which emphasizes ecosystem protection and climate resilience, is a ray of hope, demonstrating how small actions may have a worldwide impact on interconnected environmental concerns.

## Conclusion:

The Gulbenkian Prize for Humanity 2024 emphasizes how important cooperative, cutting-edge farming methods are to ensuring a sustainable future. The honoring of APCNF and the other distinguished recipients highlights the significance of fusing traditional knowledge with cutting-edge agricultural research to produce significant global solutions. As APCNF's influence and reach grow, it creates a model for sustainable development initiatives around the world, encouraging other areas to embrace comparable all-encompassing strategies for environmental stewardship and agriculture.

## NITI Aayog Releases SDG India Index 2023-24

Significant progress has been made by India in achieving the Sustainable Development Goals (SDGs) at both the national and subnational levels, as evidenced by the recently released SDG India Index 2023–24. India's aggregate score increased to 71 from earlier evaluations. The study highlights noteworthy accomplishments in important areas like economic growth, biodiversity conservation, poverty reduction, and climate action.

### Advancement Throughout States:

Based on their SDG ratings, the report divides states and Union Territories into Front Runner and New Entrant categories:

**Leading States:** 32 states and the District of Columbia had ratings between 65 and 99, indicating impressive advancements. There were noticeable advances in states like West Bengal, Uttar Pradesh, and Jammu & Kashmir.

**New Entrants:** States with significant score improvements, showing accelerated efforts towards achieving SDGs, such as Arunachal Pradesh, Assam, Chhattisgarh, and others, moved into the Front Runner group.





## Results by Objectives

- The SDG India Index 2023–24 identifies particular objective accomplishments:
- A higher score of 67 for Goal 13 (Climate Action) indicates a greater adoption of renewable energy sources and improved preparedness for disasters.
- Goal 1 (No Poverty): Increased from 60 to 72 due to the successful execution of social welfare programs like Ayushman Bharat and PMAY (Pradhan Mantri Awas Yojana).

## Important Interventions

India has advanced significantly as a result of several marquee initiatives, including:

The housing, sanitation, and clean energy targets have benefited greatly from the implementation of the PM Awas and Ujjwala Yojanas.

The well-being of society and economic prosperity have been supported by increased financial inclusion and the creation of digital infrastructure.

Institutional Framework NITI Aayog has helped promote competitive federalism and localize SDGs through its proactive involvement. This strategy creates an environment that is favorable for accomplishing the SDGs by incorporating sustainable development into national and subnational policy.

## Observing Up Front

To assess progress and direct policy decisions toward fulfilling the 2030 Agenda, the SDG India Index is an essential instrument. The emphasis is still on environmental sustainability and inclusive growth, making sure that the benefits of development are fair and long-lasting for all societal groups.

Collaboration between governmental bodies, corporations, civic society, and the general public is essential as India moves forward to achieve the SDGs. The SDG framework offers a solid foundation for worldwide.

## **Jharkhand intends to build the first physically challenged university in eastern India in Ranchi.**

The Jharkhand government is aggressively pursuing the founding of eastern India's first university specifically for physically challenged students in Ranchi, which would be a huge step towards inclusive education. This large-scale project is to provide specialized academic programs and the required assistance to specifically address the educational needs of students with impairments.



## The University's Vision

Jharkhand's Minister for Higher and Technical Education, Champai Soren, revealed the plan for this innovative university. Soren, a former state chief minister, underlined the significance of establishing an inclusive and open learning environment.

He gave the go-ahead for authorities to begin working on a thorough proposal that would define the structure and procedures of the university.

## Personalized Instruction and Assistance

Minister Soren emphasized the necessity of adapted curricula and educational facilities created to satisfy the particular needs of students with disabilities during a recent meeting with government authorities. He outlined the university's objectives to supply resources and equipment for adaptive learning that meet the wide range of needs of its student body.

## The Navothan Scholarship Program

The 'Navothan Scholarship Scheme' was also suggested by the Department of Higher and Technical Education in addition to the university initiative. The government plans to fully repay Jharkhand's highly brilliant orphaned and physically challenged kids' course fees under this scheme, up to a maximum of Rs 10 lakh annually. A stipend of Rs 48,000 will also be given to these students each year to help with living and food costs.

## Plans for Growth

The expansion of Jharkhand's educational infrastructure was another topic of discussion during the summit. In-depth discussions were held regarding plans to build new universities in Giridih, Sahebganj, Deoghar, Khunti, Gumla, and Jamshedpur. These proposals demonstrate the government's dedication to expanding access to higher education across the state.

## Dedication to Inclusive Growth



The plan to construct the first physically challenged students' university in eastern India in Ranchi highlights Jharkhand's dedication to inclusive development and fair educational opportunities. The administration of Chief Minister Hemant Soren is still giving top priority to programs that advance access to high-quality education for all members of society. Jharkhand reiterates its commitment to creating a welcoming and inclusive atmosphere where all students, regardless of physical ability, can succeed academically and make a significant contribution to society as it gets ready to launch this ground-breaking educational initiative.

The founding of this specialized institution not only represents a turning point in the accessibility of education but also establishes a standard for other areas to prioritize inclusive education in their development plans. Jharkhand hopes to establish a model institution that would inspire future generations to value equality, diversity, and educational empowerment with the help of community members and stakeholders.

# RED ALERT IN THREE DISTRICTS OF KERALA TODAY

## Monsoon forecast

Strong westerly winds and an offshore trough along the west coast of India may bring heavy rains to Kerala in the coming days. The southwest monsoon, which is 26% below normal over Kerala as of July 14, is likely to increase in activity.

## Monsoon low pressure area

According to the India Meteorological Department (IMD), the monsoon low pressure area is currently located south of its normal location and is expected to remain there for the next four to five days.

## IMD alert

In response to the expected weather conditions, the IMD has issued a red alert for Kannur, Kasaragod and Malappuram districts. An orange alert has been issued for Ernakulam, Thrissur, Palakkad, Kozhikode and Wayanad, while a yellow alert has been issued for Idukki, Kottayam, Alappuzha and Pathanamthitta.

## Favorable atmospheric conditions

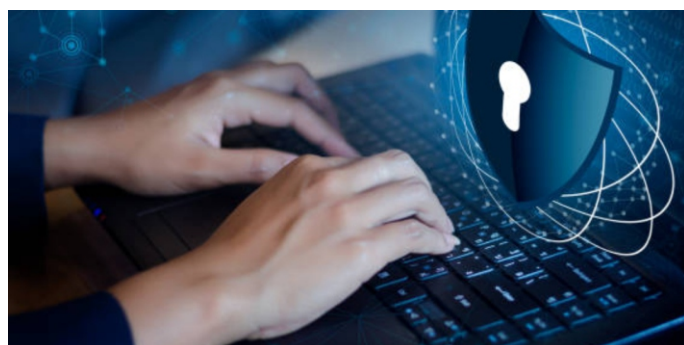
Atmospheric conditions along the west coast are becoming favorable for heavy rainfall. An offshore trough extending from south Gujarat to north Kerala is expected to cause heavy rainfall over Kerala.

## Centre warns - Beware of fake e-notices from government offices

### Steps suggested for verification

The Cyber Crime Unit of the Union Home Ministry has advised people to verify the authenticity of suspicious e-notices from government offices received through email.

They advise to check the internet for the name of the official mentioned in the notice and contact the concerned department to confirm its legitimacy.



## Previous advisory

Earlier this month, the Union Finance Ministry had warned about fraudulent emails using the name, signature, seal and logo of Delhi Police Cyber Crime and Economic Offences, Central Economic Intelligence Bureau (CEIB), Intelligence Bureau and Delhi Cyber Cell.

## Reporting cyber frauds

The Home Ministry and I4C stressed on reporting suspicious emails and other cyber frauds immediately on [www.cybercrime.gov.in](http://www.cybercrime.gov.in) or by calling the cyber crime helpline 1930.

## Myanmar coalition agrees four-day ceasefire with junta

### Temporary ceasefire in northern Shan state

On Sunday, Myanmar's coalition of ethnic minority armed groups announced a four-day ceasefire with the junta in northern Shan state. This comes after clashes in which the coalition captured territory from the military along a strategic highway to China.

### Renewed offensive against junta

Fierce fighting has been going on in the region since late last month, when the Three Brotherhood Alliance resumed an offensive against junta troops along a road to China's Yunnan province.

The offensive has disrupted a previous ceasefire brokered by Beijing in January that temporarily halted the coalition's advances.

The coalition comprises the Arakan Army (AA), the Myanmar National Democratic Alliance Army (MNDAA) and the Ta'ang National Liberation Army (TNLA).

### Ceasefire agreement and borders

TNLA Major General Tar Bhon Kyaw has confirmed that a ceasefire scheduled for July 14-18 was agreed upon as a sign of cooperation with China.

However, the ceasefire does not cover the neighboring Mandalay region, where fighting continues between the coalition, other military opponents and junta troops.



# India and Russia double rupee-ruble payments in 2024

## Increase in payments and deposits

According to Sberbank, Russia's largest bank, India and Russia have doubled their payments in national currencies (rupee-ruble) last year despite US and EU sanctions. Indian corporate rupee deposits have increased sixfold in 2024.

## Increase in transaction volume

From January to June 2024, the volume of payments has doubled compared to the same period in 2023 and transactions grew by 80%. Sberbank continues to facilitate these payments despite sanctions imposed by Russia after its invasion of Ukraine in 2022.

## Impact of Modi's visit

Prime Minister Narendra Modi's recent visit to Moscow is expected to further boost economic cooperation. Economists suggest that Chinese businesses without the rupee and the yuan take advantage of the void left by Western companies.

## Business opportunities

Experts advise Indian businesses to tap into sectors such as auto components, chemicals and electronics. Indian businessmen in Russia urge quick action to compete with China in \$240 billion bilateral trade.

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## Warning on fake emails

The Indian Cyber Crime Coordination Centre (I4C) has issued a public advertisement warning about 'fake emails' appearing as government e-notices.

They have advised to check whether the email has come from a legitimate government website ending in 'gov.in', verify the officials named in the email through internet search and contact the mentioned department to verify the email.

### Reporting cyber frauds

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## Haryana hikes OBC creamy layer limit, implements new quota

### New income limit and reservation implemented

Ahead of the Haryana assembly elections, the state government has raised the income limit for the creamy layer of Other Backward Classes (OBCs) from ₹6 lakh to ₹8 lakh.

Additionally, 5% reservation has been implemented for the OBC-B category in panchayati raj institutions and municipalities. Union Home Minister Amit Shah announced these changes at the Pichhda Varg Samman Sammelan programme in Mahendragarh.

### Political strategy and leadership change

OBCs constitute about 40% of Haryana's population and the BJP has taken strategic steps to secure its votes. In March, the party replaced Manohar Lal with OBC leader Nayab Saini as the chief minister.

Amit Shah urged the OBC community to support the BJP for a full majority government in the upcoming elections.



## Criticism of Congress

Shah has criticized the Congress, saying that it is 'anti-OBC' and opposes the Mandal Commission. He also reacted to the Haryana Congress' 'Haryana Maange Hisaab' campaign and demanded accountability from the Congress for its 10 years of rule.

## Karnataka Bill provides for 50% quota for local residents in management positions

### New appointment quota approved

The Karnataka Cabinet has approved the Karnataka State Employment Bill, 2024 for local candidates in industries, factories and other establishments, under which industries, factories and other establishments will have to appoint local candidates in 50% of management positions and 75% of non-management positions.

The Bill was approved during a cabinet meeting chaired by Chief Minister Siddaramaiah on July 15 and is expected to be introduced in the ongoing legislature session.

## Definition and requirements of a local candidate

A local candidate should have the following qualifications

- Born in Karnataka.
- Residing in the state for 15 years.
- Proficient in Kannada language and must have passed the required test conducted by the nodal agency.
- Candidates must have a secondary school certificate with Kannada or pass the Kannada proficiency test.

## Training and exemption provisions

If qualified local candidates are not available, establishments must collaborate with the government to train local candidates within three years.

Establishments can apply for exemption but the local recruitment quota cannot be less than 25% for management and 50% for non-management positions. Penalties for non-compliance range from ₹10,000 to ₹25,000

## Defence equipment worth Rs 1,048 crore to be procured from Indian entities

### New indigenisation list announced

The Defence Ministry on Tuesday notified the fifth positive indigenisation list, comprising 346 items for defence public sector undertakings (DPSUs).

The list includes major line replacement units, systems, sub-systems, assemblies, sub-assemblies, spares, components and raw materials, aimed at substituting imports worth Rs 1,048 crore.

These items will be procured exclusively from Indian industries following specified indigenisation timelines.

## Massive indigenisation effort

This list adds to the indigenisation lists of 509 items already notified by the Department of Military Affairs. As of June, DPSUs and Service Headquarters (SHQs) have offered over 36,000 defense items for indigenisation.

Over 12,300 items have been indigenised in the last three years, securing orders worth a total of ₹7,572 crore for the domestic vendor.

# Centre eases rules for procurement

of scientific research items ahead of Budget



## Increased flexibility for scientific ministries

Ahead of the Union Budget presentation, the Finance Ministry announced changes to the General Financial Rules (GFRs) that will give scientific ministries more flexibility to import and buy research equipment.

The changes respond to long-standing demands of scientists who argued that restrictive procurement rules have slowed down research productivity.

## Key changes in procurement rules

- The revised GFRs, which outline the terms of public procurement and are updated from time to time, now particularly benefit scientific ministries such as science and technology, biotechnology and defence research.
- A key change has raised the threshold value for items that can be procured without tender from ₹25,000 to ₹1 lakh.
- Additionally, the limit for goods requiring a market survey approved by a committee for price and quality has been raised from ₹1 lakh to ₹10 lakh.

## Concerns on Government e-Marketplace (GeM)

Despite these exemptions, scientists worry that these will only apply if the required goods are not available on the Government e-Marketplace (GeM). Scientists argue that GeM often lacks specialized equipment needed for research, which often has to be imported.

## China plans technology-led growth to revive economy

### High-level meetings for economic reform

Amid a globally crucial election year, China's ruling Communist Party is holding closed-door top-level meetings in Beijing to chalk out a strategy to revive its slowing economy.

The meetings, which will end on Thursday, are aimed at supporting "deepening reforms on all fronts" similar to the transformative reforms of the late 1970s.



### **Focus on technology and national security**

The party is pushing President Xi Jinping's technology and national security-centred growth blueprint. Economists are not convinced the approach will solve persistent issues such as a weak job market, huge local government debt and a long-running property market slowdown.

### **Global influence and consumer confidence**

China's economic health affects global trade, financial markets and job opportunities. Recent reports show the economy grew at a 4.7% annual rate in the last quarter, down from 5.3% previously.

Consumer spending remains subdued due to job insecurity and high education costs. Xi's policies, including the 'Made in China 2025' initiative, aim to transform China into a hub of high-tech production, although significant challenges remain.

## **117 athletes to carry India's hopes at Olympics**

### **Contingent composition**

India will send 117 athletes across 16 sports to the Paris Olympics, accompanied by 140 support staff. This number of 257 is lower than the 228-member contingent for the Tokyo Games, which included 127 athletes.

### **Shot putter Abha Khatua not included in the list**

Despite qualifying through the world rankings, shot putter Abha Khatua has not been included in the list. The reason for her exclusion is still not clear.

### **Increase in support staff**

The number of support staff has increased due to the inclusion of sports science personnel. Indian Olympic Association (IOA) president P.T. Usha has highlighted the improvement in the athlete-to-support staff ratio, which is now slightly better than 1:1.

### **Better support and visa assurances**

For the first time, a 13-member sports science team led by Chief Medical Officer Dr Dinshaw Pardiwala will be in Paris, along with a recovery center at the Athletes Village.

Usha also addressed the issue of wrestler Anantim Panghal's coach and physiotherapist being left out of the official list, and assured timely visas for non-accredited support staff of athletes.



# 2 NEW SUPREME COURT JUDGES TAKE OATH OF OFFICE

## Restoring full strength

Chief Justice of India D.Y. Chandrachud administered the oath of office to Justices N. Kotiswar Singh and R. Mahadevan as Supreme Court judges, taking the sanctioned strength of judges in the court to 34. This comes after the retirement of Justice Aniruddha Bose on April 1 and Justice A.S. Bopanna in May.

## Historic appointment

Justice N. Kotiswar Singh, who was earlier the Chief Justice of the High Court of Jammu & Kashmir and Ladakh, has become the first Supreme Court judge from Manipur. His appointment marks increased representation for the Northeast.

## Community representation

Justice R. Mahadevan, who was ranked third among the sitting judges of the Madras High Court, was preferred by the Collegium to increase representation for the backward community.

## Future recommendations

The Collegium recommended the appointment of Justice K.R. Sriram' as the Chief Justice of Madras High Court.

## GRSE gets Rs 840 crore deal to build marine research ship

### Overview of the deal

Garden Reach Shipbuilders and Engineers (GRSE) Ltd has signed a contract with the National Centre for Polar and Ocean Research (NCPOR) under the Ministry of Earth Sciences for the construction and delivery of an Ocean Research Vessel (ORV). The deal, finalized on July 16, is worth ₹840 crore.

### Project timeline and significance

The project is expected to be completed within 42 months and is the third order received by GRSE in the last month. It reflects the company's growing portfolio and its importance in marine research and development.

### Capabilities of the vessel

According to the official statement of GRSE, the ORV will be equipped to conduct underwater swath multibeam and geophysical seismic surveys in both coastal seas and deep waters.

Additionally, the ship will provide training and education opportunities for scientists and technicians, thereby enhancing research capabilities in oceanographic studies.

# Knesset votes to reject Palestinian statehood

## Knesset vote

The Israeli Knesset on Wednesday voted by 68 to nine to oppose the establishment of a Palestinian state, calling it an "existential threat" to Israel. The decision comes days ahead of Prime Minister Benjamin Netanyahu's scheduled visit to Washington.

## Significance of the resolution

Although the resolution is symbolic, it emphasizes that a Palestinian state on land occupied by Israel would perpetuate the Israeli-Palestinian conflict and destabilize the region.

The timing of the vote is significant as it precedes the International Court of Justice's (ICJ) opinion on the legitimacy of Israel's occupation of the West Bank.

## Rationale and criticism

The resolution claims that advocating for a Palestinian state would 'encourage terrorism and encourage Hamas and its supporters.'

Referring to the October 7 attacks, which resulted in 1,200 deaths, most of them civilians. The vote has attracted widespread Palestinian and international criticism.



# Development Vision

Andhra Pradesh Chief Minister N. Chandrababu Naidu on Friday outlined his vision for the state's development under the theme 'Developed Andhra Pradesh - 2047' during a meeting with NITI Aayog CEO B.V.R. Subrahmanyam at the Secretariat.

## Economic Goal

Mr. Naidu aims to achieve a growth rate of 15% and double the per capita income. He plans to contribute to India's emergence as a global power by implementing reforms and drawing lessons from his previous tenure in the unified state.

## Technological Advancement

With an emphasis on adopting advanced technologies, Mr. Naidu plans to transform Andhra Pradesh into a progressive state. He proposed to develop Amaravati and Visakhapatnam as AI hubs and unveiled plans to set up an AI University.

## Focus on agriculture

The Chief Minister highlighted the government's priority on reviving the agriculture sector and promoting natural farming. He described the Rayalaseema region as a region with significant potential for food processing industries.

## Implementation and governance

The mechanism will be implemented in accordance with the domestic laws of both countries. A joint committee will develop rules and guidelines for the JCM, including project cycle processes, methodology, monitoring and designation of third-party entities.

Decisions taken by the committee will require prior confirmation of both governments, ensuring mutual recognition of credits for each country's NDCs while avoiding double counting.

## Technology transfer and capacity building

Japan will facilitate technology transfer, finance and capacity building for the JCM. The draft MoC highlights Japan's role in supporting new technologies for the joint credit mechanism.

## India and Japan to collaborate on carbon trading mechanism

India is set to collaborate with Japan on carbon trading and carbon credit adjustment mechanisms.

The two countries are planning to sign a Memorandum of Cooperation (MoC) to set up a Joint Crediting Mechanism (JCM), as detailed in a Cabinet note prepared in July.

## Joint Crediting Mechanism (JCM)

Under the JCM, carbon credits will be distributed through a structured process, with a registry to track these credits. Projects will be agreed upon by a joint committee and the two governments will notify credits based on reports submitted.

These credits will be distributed to the respective registries of India and Japan and used for Nationally Determined Contributions (NDCs) of both countries.

## Economic and environmental impact

The initiative aims to attract investments in low carbon and clean technologies, thereby boosting job creation. The draft Cabinet note authorizes the Ministry of Environment, Forest and Climate Change (MoEFCC) to sign the MoC with Japan.

The JCM, set up under Article 6.2 of the Paris Agreement, will help in diffusing decarbonising technologies and implementing mitigation actions.

# Bangladesh Imposes

## Curfew and Deploys Military Amid Violent Unrest

In response to escalating violence, Bangladesh announced on Friday the imposition of a curfew and the deployment of military forces after police efforts failed to quell days of deadly unrest spreading throughout the country.

The unrest, sparked by student protests against quotas for government jobs, has resulted in at least 105 deaths this week. Dhaka Medical College Hospital reported that at least 52 people were killed in the capital city on Friday. Additionally, television news channels were taken off the air, and telecommunications were widely disrupted.

In the central district of Narsingdi, protesters stormed a jail, freed inmates, and set the facility on fire as police struggled to control the chaos. Massive rallies continued in Dhaka despite a ban on public gatherings.

“Our protest will continue,” stated Sarwar Tushar, a participant in a capital march who sustained minor injuries. “We want the immediate resignation of [Prime Minister] Sheikh Hasina. The government is responsible for the killings.”



### 'Destructive Activities'

Dhaka's police force reported that on Thursday, protesters had torched, vandalized, and carried out “destructive activities” on numerous police and government offices. This included the Dhaka headquarters of state broadcaster Bangladesh Television, which remained offline after hundreds of students set a building on fire.

“About 100 policemen were injured in the clashes yesterday. Among those arrested was Ruhul Kabir Rizvi Ahmed, the joint secretary of the main opposition party, Bangladesh Nationalist Party.

The near-daily marches this month have been driven by demands to end a quota system that reserves more than half of civil service posts for specific groups.



# China Unveils

the First High-Speed Carbon Fiber Train in the World

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A cutting-edge carbon fiber-only passenger train has been unveiled in China. It represents a significant advancement in high-speed rail technology. This advancement has made China a global leader in this area.

## Crucial Elements of the Carbon Fiber Railway

Smog levels will significantly decrease due to the new train's weight reduction over the older steel trains. The primary objective is moving as light a vehicle as possible without compromising performance. The carbon fiber train is expected to consume 7% less energy than conventional steel trains while reaching top speeds of 87 mph. This innovative concept is critical to a healthy, low-carbon transportation future.

## The Environmentally Friendly Image of High-Speed Rail

High-speed trains are already the most environmentally benign means of long-distance transportation. Compared to vehicles and trains, it produces less noise, occupies less space, and pollutes the air relative to its passenger count. China boasts a 28,000-mile network of high-speed trains that reach top speeds of 125 mph. This enables quick and affordable travel. Operations and maintenance management have recently benefited from the addition of AI, which has increased efficiency and dependability.

## Concerning high-speed rail technology

Over 250 km/h (155 mph), high-speed rail (HSR) operates. The Shinkansen, Japan's first high-speed rail route, debuted in 1964. The TGV from France holds the global record, having reached a speed of 357 mph (574 km/h) in 2007. Compared to cars, HSR systems consume less energy per person, making them more environmentally friendly. Many of them operate on dedicated lines, reducing wait times. China has the largest network of HSR rails in the world, spanning over 22,000 miles (35,000 km). Travel times can be greatly reduced by HSR, which can boost the local economy and connections.

## NASA has confirmed six additional exoplanets

NASA has confirmed six additional exoplanets, increasing the total to 5,502, marking significant progress in its investigation of exoplanets. This is a critical step in our understanding of the cosmos and the potential for extraterrestrial life. The journey began in 1992 with the discovery of Poltergeist and Phobos, the first exoplanets discovered circling the pulsar PSR B1257+12. The rate at which the field was developing was demonstrated by the fact that by March 2022, there had been over 5,000 findings.

### *New Exoplanets Overview*

A super Jupiter orbiting an enormous M giant star, much larger than our Sun, is HD 36384 b.

**TOI-198b:** It is located on the edge of its star's habitable zone and may be rocky.

**Hot super-Earths** TOI-2095b and c orbit the same M dwarf star.

**The "hot Jupiter"** TOI-4860b has a brief orbital period of 1.52 days.

Large protoplanet MWC 758c has a protoplanetary ring encircling it and is circling a young star. It displays the formation of planets.

### Methods of Detection

**Exoplanets can be located in several ways:**

**Radial Velocity:** Examines how the planets around stars cause them to tremble.

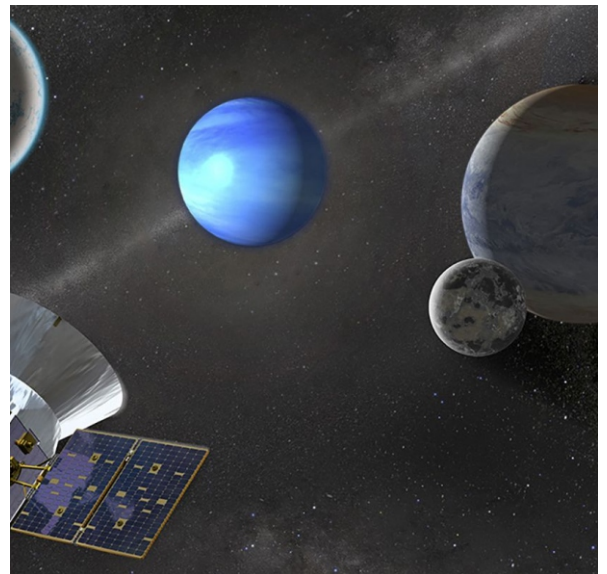
**Transit Method:** It calculates the amount that sunlight decreases as planets pass in front of their stars. The MWC 758c has been identified using direct imaging.

### TESS and Other Telescopes' Role

NASA's Transiting Exoplanet Survey Satellite (TESS) has been instrumental in locating several potential exoplanets since its launch in 2018. The James Webb Space Telescope, Spitzer, Hubble, and other telescopes have all made significant advances in the study of exoplanets. The Nancy Grace Roman Space Telescope is scheduled for launch by NASA in May 2027. For direct imaging, this telescope will be equipped with a coronagraph apparatus. Initiatives like the Habitable Worlds Observatory, which would search for evidence of extraterrestrial life, might be made feasible by this technology.

### Expand on exoplanets

The number of confirmed exoplanets—worlds outside of our solar system—is over 5,000. 51 Pegasi B, discovered in 1995, the first exoplanet was confirmed. Most extrasolar planets can be located using the transit method, which involves seeing a star's light fading when a planet passes across it. Huge numbers of potential planets were discovered by the Kepler Space Telescope. The exoplanets known as circumbinary planets orbit two stars. Gas giants near their stars called hot Jupiters are used to test theories regarding planet formation. Two techniques applied in the investigation are gravitational microlensing and radial velocity. Seven planets roughly the size of Earth are found in TRAPPIST-1. Philosophers who lived in antiquity contemplated worlds other than our own.



## Two Flower Fly Species Reported from Kerala for the First Time

The Old World genus *Mesembrius* Rondani, 1857 includes roughly 58 species found in the Mediterranean Basin of the Palaearctic Region as well as the Oriental, Australasian, and Afrotropical regions. Within the tribe Eristalini, they are members of the subfamily Eristalinae.

### Research on Flower Flies at Shadpada Entomology Research Lab

Researchers from Christ College at Irinjalakuda's Shadpada Entomology Research Lab (SERL) recently discovered an intriguing finding. The Kole wetlands and Vilagan Kunnu hillocks in the Thrissur district are home to two species of flower flies, *Mesembrius bengalensis* and *M. quadrivittatus*. The team, led by research researcher Athul Sankar C., also included assistant professor Dr. Bijoy C. and associate professor Dr. Shaji E.M. These species have never before been documented in Kerala.

### Flower Flies' Significance to the Environment

Flower flies are members of the Syrphidae family and are important to the environment. These flies' ability to imitate wasps and bees has allowed them to survive by scaring away potential predators. Beyond just being a means of survival, flower flies play a crucial role in pollination, and their larvae recycle nutrients and act as biological controllers. This ecological function emphasizes how crucial it is to record and comprehend their behavior and distribution.

### Support for Entomological Studies

This team's findings have been published in the reputable entomology journal ENTOMON. The study broadens our knowledge of Kerala's biology while also adding new species to the list of wildlife there. The team's review of the literature revealed that there were 59 different species of flower flies in Kerala before this discovery.





# Recognizing the Summer Monsoon of 2024 and Its Consequences



The summer monsoon, often known as the "southwest monsoon," is defined by winds that come from the southwest and pass the Western Ghats to enter mainland India from the Arabian Sea. The overall climatic patterns, water resources, and agriculture of India are all greatly impacted by this meteorological event. The 2024 monsoon season began on May 30 and as we progress through it, we see a complicated and a little surprising pattern of rainfall distribution. The actual rainfall has been highly irregular, contrary to the India Meteorological Department's (IMD) original estimates of normal to above-average rainfall due to an anticipated La Niña. The northward movement of the monsoon trough appeared swift at first, but it halted, resulting in a drier-than-expected June across much of the country, including the Western Ghats.

## Recognizing the Summer Monsoon of 2024 and Its Consequences

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### The Monsoon's Wider Circulation

The influence of the monsoon season is not limited to India. The African highlands are grazed by winds from the southwest, which might be drawn towards India by the Bay of Bengal's activity. The heat over West Asia and the dust from its deserts also add to the variability of the monsoon and its alterations as a result of global warming. The eastern Bay of Bengal and areas like Pakistan, Nepal, Bhutan, and Myanmar are important in controlling the monsoon and bringing heat to the Indian subcontinent.

## Limitations on Data and Forecasting

The IMD is constantly working to improve monsoon forecasting, but its efforts are frequently hampered by a dearth of thorough rainfall and meteorological data from locations outside of India. Although some data is provided by satellites, it is still not enough to provide reliable projections in real time. Forecasts are aided by global models that use information from the planetary atmosphere and oceans, but the volume of data is frequently insufficient.

## Increasing Monitoring Across the Subcontinent

With improvements in forecasting infrastructure, India's long-standing rainfall monitoring network, which dates back to the 19th century, is already producing notable benefits. India needs to do more to increase prediction accuracy and maintain economic growth, especially with regard to food, water, and energy security. Furthermore, national security, which significantly depends on precise weather and climate forecasts, stands to benefit.

Increasing safety and lowering vulnerability can be achieved by building a comprehensive network to monitor weather and climate throughout the subcontinent and expanding the approach to share forecasts with adjacent countries. Opportunities for improved resource management, health, and general well-being for the entire region would be enhanced by this collaboration.

## Student protests in Bangladesh

The 2018 minor anti-quota movement planted the seeds for the current quota reform push. The Bangladesh High Court denied a plea on March 8, 2018, contesting the validity of the nation's quota system, which has been in place since the early 1970s. Amidst this context, Ms. Hasina said that she would uphold the quota for the offspring of the liberation war veterans.

Ms. Hasina and the Awami League have long dominated Bangladesh's political system. Opposition parties and opponents have increasingly expressed the opinion that the freedom fighter quota was simply an attempt to cultivate a cadre of close Awami League sympathizers inside the civil service or bureaucracy who would uphold the Awami League's control.

Ms. Hasina referred to the demonstrators who opposed the quota for the families of the freedom fighters as "razakars," or traitors who helped the Pakistani military commit massive crimes against both men and women in 1971.






## **China, Philippines reach deal in effort to stop clashes at shoal**

The Philippine administration said on Sunday that China and the Philippines have achieved an agreement they believe will put an end to conflicts at the most hotly contested shoal in the South China Sea.

Second Thomas Shoal is disputed by China and the Philippines, and growing hostilities at sea have raised concerns about further confrontations in which the US may become involved.

Following several discussions between Chinese and Philippine diplomats in Manila and the exchange of diplomatic notes intended to create a mutually agreeable arrangement at the shoal without compromising either side's territorial claims, the important agreement was finally struck on Sunday.

"Both sides agree that communication and consultation are the best ways to resolve disagreements and defuse the current South China Sea situation.



# Low recovery of fees led to Kerala airport fare hike

## Tariff hike details

Tariffs for passengers and airlines were raised at Thiruvananthapuram airport on July 1 due to low recovery of fees during the Covid-19 pandemic and delay in revision of charges after privatization.

The June 21 order of the Airports Economic Regulatory Authority (AERA) has increased the user development fee (UDF) for domestic passengers by 50% from ₹506 to ₹770 for a year.

A new user fee has been introduced for international passengers and the landing fee for aircraft has been increased threefold from ₹309 to ₹890 per metric tonne.

## Reasons for hike

Minister of State for Civil Aviation Murlidhar Mohol said the pandemic led to a sharp drop in traffic, leading to under-recovery of ₹789.29 crore for the second control period.

After the airport was handed over to Adani Enterprises Ltd in October 2021, the fixation of new tariffs has been delayed as the concessionaire was barred from seeking tariff hikes for 365 days from the date of takeover.

## 3 new MLAs took oath in Himachal Pradesh

### New MLAs took oath

On Monday, Himachal Pradesh Assembly Speaker 'Kuldeep Singh Pathania' administered oath to 3 newly elected MLAs including Chief Minister 'Sukhwinder Singh' Sukhu's wife 'Kamlesh Thakur'. The Chief Minister, Leader of Opposition 'Jai Ram Thakur', Cabinet Ministers and other members were present at the ceremony.

### New Assembly Structure

The MLAs who took oath include Congress MLA 'Kamlesh Thakur' from Dehra assembly seat, 'Hardeep Singh Bawa' from Nalagarh seat and BJP MLA 'Ashish Sharma' from Hamirpur seat.

After the joining of these MLAs, the Congress party now has 40 seats in the Assembly, while the BJP has 28 seats.



### **For the first time in history**

For the first time in the history of Himachal Pradesh, there is no independent MLA in the Assembly. Apart from this, this is the first time that Mr Sukhu and his wife are working together in the same House.

### **Spotless swine: A new dimension in human organ production**

#### **Groundbreaking transplant**

The first gene - edited pig organs transplanted into humans came from a research farm in the Blue Ridge Mountains, where strict biosafety measures are enforced. This includes vehicle washing, changing clothes and boot disinfection.

#### **Precious animals**

'These are precious animals,' according to David Ayres of Revivicor Inc., who has devoted decades to perfecting the cloning of genetically modified pigs.

A new herd of pigs is being raised under even stricter biosecurity for future animal - to - human transplant studies in Christiansburg, Virginia.

### **Controlled environment**

This state - of - the - art facility resembles a pharmaceutical plant rather than a farm, with a highly controlled environment to prevent infection. The pigs breathe filtered air, drink purified water and eat disinfected feed.

### **Possible solution to organ shortage**

With thousands of people dying each year waiting for transplants, animal organs offer a promising solution. Four 'compassionate use' transplants using pig organs have already provided valuable lessons.

### **Next Steps**

The FDA is evaluating promising results from human body and baboon studies to determine next steps. Revivicor scientists continue to refine genetic modifications, with the goal of making xenotransplantation a viable alternative to organ donation.

# In Beijing, Hamas and Fatah Sign

## Historic Proclamation to Heal Prolonged Rivalry

In a major move toward reconciliation, the opposing groups Hamas and Fatah signed a proclamation in Beijing intended to put an end to their protracted disagreement. The goal of the Beijing Declaration, which was unveiled on Tuesday, is to bridge a significant rift that has remained for years in spite of multiple attempts at reconciliation.



### Dedication to Cohesion and Administration

As part of the deal, the two main Palestinian political parties promised to establish a unity administration for the Palestinian territories. According to the Chinese state media CCTV, the declaration's main objectives include "ending division and strengthening Palestinian unity." This action is being taken in the midst of a ten-month-old conflict in Gaza. A proposal for a cease-fire with international support is being worked on in an effort to put an end to the conflict and secure the release of the many Israeli captives that Hamas is holding.

### Israel's Denial of the Accord

Israel Katz, the foreign minister of Israel, promptly disapproved of the deal, declaring that Hamas and Fatah will not share a government in Gaza. Katz stated unequivocally that Hamas's rule would be "crushed" and that Hamas would have no part in running Gaza after the battle. Additionally, Israel rejects US proposals for the Palestinian Authority, which is dominated by Fatah, to rule Gaza following the conflict.

### The diplomatic role of China

The accord underscores China's growing sway in West Asian diplomacy, subsequent to its accomplishment in negotiating the mending of ties between Saudi Arabia and Iran. Following the conclusion of the Sunday-starting discussions in Beijing, Chinese Foreign Minister Wang Yi

### Route to the State of Palestine

The groups reaffirmed their intention to establish a state for the Palestinian people on territory that Israel had captured from its Arab neighbors in the 1967 war. The pact expands upon earlier attempts at reconciliation from 2022 and 2011. A representative for Fatah, Jamal Nazzal, emphasized that the agreement made in China includes Hamas and other groups joining the Palestine Liberation Organization (PLO).

## Obstacles to Come

The Beijing Declaration is a big step toward Palestinian unity, but there are still many obstacles along the way. It is anticipated that the agreement would mostly be implemented following a possible cease-fire in Gaza. Achieving long-term peace and stability in the region will depend on the PLO's inclusion of all factions and the effective establishment of a unity government.

## In summary

An optimistic but intricate step toward healing the long-standing division between Hamas and Fatah is the Beijing Declaration. The international community will be keenly observing the agreement's implementation and its effects on the future of Palestinian government and the larger geopolitical scene, given China's increasing influence in West Asian diplomacy.

## Union Budget 2024: Encouraging Every Aspect of the Community

On Tuesday, Finance Minister Nirmala Sitharaman unveiled the Union Budget, which was widely hailed as a budget that would empower all facets of society. The budget, according to Prime Minister Narendra Modi, has the ability to improve rural India, help the underprivileged, and grow the agriculture industry.

### The Way to Financial Success

"This is a Budget that will take the country's villages, poor and farmers on the path of prosperity," PM Modi stated. He emphasized that 25 crore people had been lifted out of poverty in the last ten years. The budget seeks to maintain this pattern, giving special attention to the recently formed neo-middle class.

### Encouragement of the MSME Sector

In the budget, the micro, small, and medium-sized enterprise (MSME) sector was given particular consideration. PM Modi stressed that the new rules would open doors for MSMEs and small traders to advance. He stated, "A new scheme to increase ease of credit has been announced in the Budget," adding that district-level projects are being undertaken to improve the export and manufacturing ecosystem. This program has the potential to open up new doors for startups and the space industry.

### Incentives for Employment

A significant portion of the budget is set out for hiring young people. To create a lot of jobs, the government has implemented "employment-linked incentive" programs. The government will pay for new workers' initial salaries under this program. Young people from rural areas will also be able to work for the best corporations in the nation through an apprenticeship program.

### Infrastructure Development and Economic Hubs

The budget includes plans for 14 major cities' transit systems, as well as development plans for 12 new industrial nodes and satellite towns. These programs seek to establish new economic centers and produce a large number of employment around the nation.

### Reducing Poverty and Increasing Empowerment

PM Modi outlined a number of initiatives aimed at reducing poverty and empowering the underprivileged. Among the initiatives are the construction of three crore houses for the impoverished and the 'Janjatiya Unnat Gram Abhiyan,' which uses a saturation technique to connect five crore tribal families to basic amenities.

### Assistance with Startups and Innovation

The budget presents a plethora of chances for the innovation ecosystem and start-ups in India. PM Modi mentioned the decision to do away with the angel tax and the ₹1,000-crore corpus fund established to bolster the space industry. "Record high capital expenditure (capex) will become a driving force of the economy," he stated.

In conclusion, with specific efforts for tax reform, MSME support, youth employment, infrastructure development, poverty reduction, and encouraging start-ups and innovation, the Union Budget 2024 aims to empower all segments of society.

## These 5 new schemes will prove beneficial in job creation

### New employment measures

In view of rising unemployment and job losses, the first budget of the third Narendra Modi government has proposed to give priority to employment and skill development. The Union Budget has introduced 5 schemes with a total outlay of 2 lakh crore for the purpose of job creation for the youth.

### Employment-linked incentives

Union Finance Minister Nirmala Sitharaman has announced 3 schemes under the Prime Minister's package, which are focused on 'employment-linked incentives'. These will be based on EPFO enrolment, which will provide assistance to first-time job seekers and their employers.

Newly appointed employees will get one month's salary in 3 installments, up to ₹15,000, which will benefit 210 lakh youth.

### Manufacturing sector and skill programs

The second scheme will encourage additional employment in the manufacturing sector, benefiting 30 lakh youth. Another scheme will cover all sectors, with employers being reimbursed up to Rs 3,000 per month for each additional employee.

The budget also proposes to skill 20 lakh youth over 5 years and provide one crore internship opportunities in top companies.

### Criticism from trade unions

Trade union leader Amarjit Kaur has criticized the proposals for focusing on skill development instead of providing jobs to the already skilled unemployed population, which is benefiting corporate houses more than addressing the employment crisis.





# The Bihar Assembly has passed a bill to prevent paper leaks in government recruitment exams

## A new law was introduced

The Bihar Assembly on Wednesday approved the Bihar Public Examination (Prevention of Improper Means) Bill, 2024. The bill introduced by Parliamentary Affairs Minister 'Vijay Kumar Chaudhary' is aimed at curbing question paper leaks and malpractices in government recruitment exams.

## Severe punishment was imposed

In this bill, 3 to 5 years of imprisonment and a fine of ₹10 lakh have been made mandatory for the persons involved in the misconduct.

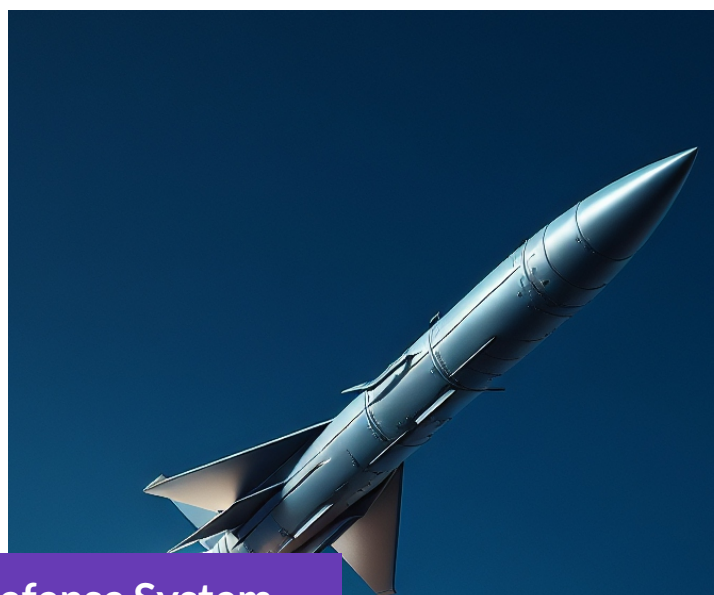
Service providers found guilty of organized fraud face 5 to 10 years in prison, a fine of up to ₹1 crore and a four-year ban from service. It also includes confiscation of assets and recovery of costs from criminals.

## National and regional context

This law is in line with anti-paper leak measures recently implemented by the central government and states like Uttar Pradesh and Jharkhand. Jharkhand has passed a bill in 2023 with life imprisonment and a fine of ₹10 crore.

## Recent exam scams in Bihar

There have been many exam controversies in Bihar, including NEET 2024 paper leak and cancellation of BPSC teacher recruitment exam and Bihar Constable recruitment exam due to leaks.



## DRDO Tested Phase-II Ballistic Missile Defense System

### Demonstration of advanced defense capabilities

The Defense Research and Development Organization (DRDO) on Wednesday successfully flight-tested its Phase-II Ballistic Missile Defense (BMD) system. The test demonstrated India's ability to defend against ballistic missiles with a range of up to 5,000 km.

### Progress from Phase I

Phase I of the BMD system, which can intercept ballistic missiles with a range of up to 2,000 km, has already been deployed. Initial testing of the Phase-II BMD system took place in November 2022.



## Test details

During the test, a target missile was launched from the LC-IV Dhamra at 16:20 hrs, which was an imitation of an enemy ballistic missile.

The missile was detected by surface-based weapon system radars, which then activated the Air Defense (AD) interceptor system. This successful test marks a significant advance in India's indigenous missile defense capabilities.

## Ketamine pills offer hope for treatment-resistant depression, but also risks

### Success in treating depression

A new slow-release ketamine tablet has demonstrated efficacy in the treatment of treatment-resistant depression, providing a viable alternative to conventional, cumbersome clinic-based therapies.

Ketamine, which was initially used as an anesthetic and is known for its acute antidepressant effects, is usually administered intravenously or via nasal spray, which can cause both significant side effects and monitoring is required in the clinic.

### Results of clinical trials

Developed by Paul Glue and his team, the extended-release tablet, R-107, has been tested on 231 volunteers from New Zealand, Australia, Singapore and Taiwan.

After an initial five-day treatment phase, 168 participants entered a double-blind study, where they were given either a placebo or one of four doses of R-107.

The results showed that the highest dose (180 mg) produced the most significant improvement in depression symptoms with the least side effects.

### Benefits and challenges

The tablet's extended-release formulation allows home administration, making treatment more accessible, especially in underserved areas.

However, concerns remain about potential abuse and the need for further research to ensure safety and efficacy. Dr. Glue's team has made R-107 harder to abuse, but ongoing studies will be important to address these concerns and assess the long-term effects of the tablet on patients.



# THE TAIWANESE

ROCKET START-UP COULD BE AN EARLY TEST OF

## JAPAN'S SPACE HUB PLANS



### Rocket Launch Plans

Taiwanese startup TiSpace is going to become the first foreign company to launch a rocket from Japan early next year. The purpose of the suborbital launch is to support Tokyo's goal of becoming the leading space center in Asia.

### Challenges and support

TiSpace awaits final approval for its 12-meter sounding rocket, facing regulatory hurdles and delays.

Despite previous failures, including the 2022 attempt in Australia, this new rocket design is promising. This effort has received strong support from Japanese businesses and officials, particularly from the Taiki region of Hokkaido.

### Potential geopolitical implications

While some analysts warn that the launch could attract China's attention, TiSpace President Yen-Sen Chen said no concerns have been raised. The Japanese government supports free economic and research activities within legal boundaries.

### future prospects

If successful, TiSpace plans to expand its manufacturing in Japan, attracting customers such as Hokkaido-based Letara.

The initiative is in line with Japan's aspirations to grow its private space industry to more than \$50 billion by the early 2030s.

## The Prime Minister of Israel called for a global coalition against Iran in America

### Criticism of Ceasefire Protesters

Israeli Prime Minister Benjamin Netanyahu on Wednesday condemned the Gaza ceasefire protesters and accused Iran of financing them. Addressing a divided US Congress, he called Gaza peace activists 'useful fools of Iran'.

### U.S. - Call for Israel Security Coalition

Netanyahu calls on the U.S. to counter Iran's growing influence, and has urged the formation of a security alliance between Israel.

In which all countries living at peace with Israel are invited to join. He called Iran the 'axis of terror' behind communal violence in West Asia.

### Divided reactions and opposition

As the human casualties in Gaza continue to increase, the U.S. And the protests in Israel are intensifying. Thousands of people demonstrated outside the Capitol and 6 protesters were arrested inside the House. Palestinian-American MP Rashida Talib called Netanyahu a 'war criminal'.

### U.S. Meetings with leaders

Netanyahu met with President Joe Biden and is scheduled to meet with former President Donald Trump. His fourth address to a joint session of Congress reflected his belief that military pressure is necessary to defeat Hamas.

# Suicides will be reduced by giving mental health education

## **Government's inaction**

A recent Lancet article highlighted the issue of suicide, with psychiatrists criticizing the government's lack of interest in addressing the crisis.

## **National Suicide Prevention Strategy**

The National Suicide Prevention Strategy (NSPS), launched in November 2022, aims to establish effective suicide surveillance and create a psychiatric outpatient department within 5 years.

It also plans to integrate mental health curricula into educational institutions and develop guidelines for responsible media reporting.

## **Rising suicide rates**

More than 100,000 people die due to suicide every year in India, making it the leading cause of death among children aged 15-29 years. Between 2019 and 2022, the suicide rate increased from 10.2 to 11.3 per 100,000.

## **call to action**

Despite elaborate plans, no significant progress has been made in two years. Dr. Experts like Lakshmi Vijayakumar and Soumitra Pathare blame the lack of political will to reduce suicides and call for comprehensive, district-wise programs and policy implementation.

## **Community effort**

Mentor Dheeraj Singh emphasizes the importance of community involvement in identifying and addressing suicidal thoughts, promoting open dialogue and providing timely support.



# ASSAM'S ROYAL BURIAL MOUNDS

now included in UNESCO's  
World Heritage List



## Historic recognition to Assam's heritage

The 700-year-old burial mound system of the Ahom dynasty in Assam 'Charaideo Moidam' has been included in the UNESCO World Heritage List, becoming India's 43rd World Heritage Site. The announcement was made during the 46th session of the World Heritage Committee in Delhi.

## Comparison with Egyptian pyramids

Like the Egyptian pyramids, the Moidams are earthen burial mounds for the Ahom royal family. The Ahoms adopted Hindu cremation practices in the 18th century, burying the cremated bones and ashes in these mounds.

## Tourist attractions and cultural significance

Charaideo Moidam is now a major tourist destination and symbolizes the deep spiritual beliefs and architectural prowess of the Tai-Ahom community of Assam. The site is the first site in Northeast India to receive recognition in the cultural category.

## Official nomination and conservation

Designated as India's official entry in 2023, 90 of the 386 Moidams at Charaideo are considered the best preserved and most complete examples of this tradition.

## Uncertainty in the Atlantic Ocean has Europe worried about its security

Trump's 2016 comments and European response

Donald Trump's 2016 suggestion not to honor NATO's defense commitments has worried the alliance.

His 'America First' stance prompted European leaders to recognize the need for NATO to adapt to the challenges of the 21st century and take more responsibility for its own defense.

## Emerging threats and strategic focus

The past eight years of Trump's presidency and Russia's invasion of Ukraine have highlighted the uncertainty of US military assistance and the threat to Europe's eastern border. At the same time, the US has shifted its strategic focus to China, Iran and North Korea.

## European defense spending to rise

Europe's dependence on US military leadership is declining. This year, 23 of NATO's 31 non-US members will meet or exceed their 2% GDP defense spending commitment, compared with only three a decade ago.

European countries are urged to increase troop numbers, modernize equipment and enhance technological security to counter a variety of global threats.

## US sanctions target Chinese firms linked to North Korea's weapons program

### Sanctions target Beijing office

The US has imposed sanctions on Beijing-based company Beijing Sanshunda Electronics Science and Technology Co. Ltd and several individuals, accusing them of assisting North Korea's weapons program.

The sanctions are aimed at disrupting alleged links between the firm and Pyongyang's advanced weapons development.

### China's role and response

China, a major economic backer of North Korea, is seen as crucial to Pyongyang's military and economic stability. The US Treasury claims Chinese citizen Shi Qianpei used the company to purchase illicit materials for North Korean operative Choe Chol Min, who is involved in weapons systems development.

Shi's network reportedly facilitated the acquisition of sensitive electronics and materials used in missile production.

### China's defense

China says it complies with U.N. sanctions and opposes unilateral measures by the U.S. U.S. attorney Joshua Stanton argues that under President Xi Jinping, China has become a haven for North Koreans evading sanctions, including money laundering and weapons smuggling.



## Employment Schemes AND ISSUES IN INDIA

### Why in News?

The Union Budget for 2024-25 emphasized employment as a key priority, with significant measures announced to address unemployment and generate formal jobs.



28/07/24

### Current State of Employment in India

- Economic Survey Insights:
  - India's workforce was estimated at 56.5 crore in 2022-23.
  - Employment distribution: 45% in agriculture, 11.4% in manufacturing, 28.9% in services, and 13% in construction.
  - Unemployment rate stood at 3.2% in the same period.
- Underemployment and Unemployment Rates:
  - Many job seekers continue to work in informal sectors.
  - Urban unemployment for March 2024 was at 6.7%, while youth unemployment was at 10%.
  - Proportion of regular salaried workers dropped from 22.8% in 2017-18 to 20.9% over five years.

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## Key Employment Schemes in the 2024-25 Budget

- **First Scheme:** Incentivizes hiring of first-time employees with a wage incentive of up to ₹15,000.
- **Second Scheme:** Supports wage subsidies for first-time employees, providing a maximum incentive of 24% of ₹25,000 monthly wage for four years.
- **Third Scheme:** Offers a ₹3,000 monthly EPFO contribution for new workers.
- **Fourth Scheme:** Boosts skilling efforts through Industrial Training Institutes, benefiting 20 lakh students.
- **Fifth Scheme:** Focuses on internships in top companies with a ₹5,000 monthly allowance.

## Analysis of Schemes and Their Impact

### Expert Opinions:

- Schemes aim to encourage hiring by reducing employer costs but may not address broader issues.
- Critics highlight the need for a holistic approach including low wage economy, inadequate skills, and investment gaps.

## Stagnation of Wages and Economic Challenges

- **Wage Costs:** Noted as a deterrent for employers to hire new workers.
- **Economic Factors:** Lack of demand, low consumption, and insufficient investment cited as critical issues.
- **Policy Measures:** Suggested to target specific sectors, such as the MSME sector, for more substantial impact.

## NEED FOR FOCUS ON MSME SECTOR

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## Policy Recommendations:

- Tailored schemes to address unique challenges of the MSME sector.
- Support in terms of credit, technology, and market access.

## Conclusion

The employment measures announced in the 2024-25 budget reflect a focused attempt to generate formal employment through various incentives. However, the success of these schemes will depend on their effective implementation and addressing broader economic issues to create a sustainable and inclusive job market.

# Natural Farming in India



## Why in news?

The Union Budget for 2024-25 introduced significant measures to promote natural farming across India, targeting one crore farmers to transition to chemical-free agriculture over the next two years.

## Mission and Objectives

- **National Mission on Natural Farming (NMNF):**
  - Aim: Encourage farmers to adopt chemical-free farming.
  - Strategy: Implementation through scientific institutions and gram panchayats.
  - Bio-input Resource Centers: 10,000 centers to be established for support.

## What is Natural Farming?

- **Definition and Practices:**

Natural farming eschews the use of chemical fertilizers and pesticides, emphasizing traditional practices such as on-farm biomass recycling, biomass mulching, the use of cow dung and urine formulations, and on-farm botanical concoctions. These methods aim to enhance soil fertility, improve environmental health, and reduce greenhouse gas emissions, thereby promoting a sustainable and eco-friendly approach to agriculture.



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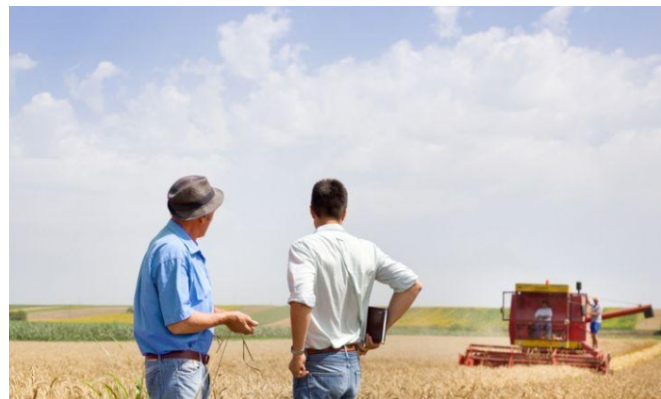
### Benefits of Natural Farming

- **Sustainability:**
  - Promotes a natural nutrient cycling system.
  - Enhances organic matter in the soil.
- **Diversified Farming System:**
  - Integrates crops, trees, and livestock.
  - Utilizes functional biodiversity.
- **Environmental Impact:**
  - Restores soil fertility.
  - Reduces dependency on chemical inputs.



### Challenges and Concerns

- **Opinions: Agricultural Expert**
  - Skepticism about large-scale transition to natural farming.
  - India's huge population and food security concerns.
  - Findings from studies such as the 'Zero Budget Natural Farming' (ZBNF) raise concerns about yield sustainability and profitability.



### Case Study:

- Sri Lanka's transition to natural farming faced significant challenges.
- Banned chemical fertilizers abruptly, leading to:
  - Severe economic and political repercussions.
  - A 59% decline in rice yields and a 32% decline in tea yields.
- Resulted in food security risks and civil unrest.

### Conclusion

Natural farming presents a promising yet challenging avenue for sustainable agriculture in India. Its success will depend on careful implementation, scientific support, and addressing economic and food security concerns. Lessons from international examples like Sri Lanka underscore the need for a balanced and informed approach.

# Decentralized Testing and Sequencing in Kerala: A UPSC PERSPECTIVE

## Why in News?

On July 20, the Thiruvananthapuram-based Institute of Advanced Virology (IAV) successfully conducted a rapid test for the Nipah virus, marking a significant shift from centralized testing. This advancement facilitated quicker public health responses in Kerala.

## Background

- **Previous Testing Protocol:**
  - In past Nipah virus outbreaks in Kerala (2018, 2019, 2021, 2023), samples were sent exclusively to the National Institute of Virology (NIV) in Pune.
  - Delays were common due to the centralized nature of testing, resulting in slower public health responses.

# Decentralized Testing Initiative

## Implementation:

- o In 2022, the IAV in Thiruvananthapuram was equipped to test Nipah virus samples locally.
- o On July 20, 2024, IAV tested samples in four hours and reported results to the State government by 9 am, with NIV confirmation arriving in the evening.

## Impact and Advantages

### Speed and Efficiency:

- o The local testing reduced the time needed to initiate public health responses.
- o Kerala was able to swiftly implement measures to prevent the virus spread.

### Enhanced Capabilities:

- o IAV's advanced facilities include BSL-3 laboratories capable of testing various viruses, including Nipah, Zika, Chikungunya, and Influenza.

## Case Study: Recent Nipah Outbreak

### Testing and Response:

- o The latest outbreak saw IAV testing samples locally, with results in four hours.
- o NIV's confirmation followed, but the initial quick response was crucial.

### Public Health Measures:

- o Immediate action was taken to contain the virus spread.
- o Isolation wards and other containment measures were promptly implemented.

## Genome Sequencing Efforts

### Current Initiatives:

- o IAV is conducting whole genome sequencing of the Nipah virus to study its relatedness to previous strains.
- o The goal is to make genome data publicly accessible for research and public health planning.

## Broader Implications

### Decentralized Model:

- o Similar decentralization efforts are underway in Gujarat and other states to improve response times for emerging pathogens.
- o Rapid testing and local capacity building are seen as vital for effective disease control.

## Conclusion

The move towards decentralized testing and sequencing, exemplified by Kerala's recent actions, highlights the importance of local capabilities in managing viral outbreaks. This approach allows for faster responses, better containment, and improved public health outcomes, setting a precedent for other regions to follow.

# MANU'S HISTORIC BRONZE STARTS INDIA'S MEDAL RACE

## Emotional turnaround from Tokyo 2020

Three years ago, Manu Bhaker broke down in tears after a disappointing performance at the Tokyo 2020 Olympics, where she failed to win a medal in three events. On Sunday, the 22-year-old experienced a contrasting emotional moment at the Paris 2024 Olympics.

## Historic feat in Chateauroux

Competing in the women's 10m air pistol event, Bhaker won the bronze medal, India's first medal at the Games, becoming the first Indian woman shooter to achieve the feat.

## Consistent performance in the final

Bhaker entered the final in third place and maintained a strong performance throughout, with only 7 of her 22 shots hitting the '9' ring. She was in contention for the silver medal until her final shot, where she was beaten by South Korea's Kim Yeji by just 0.1 points. South Korea's Hee Jin Oh won the gold medal.

## Upcoming events

Bhaker's Olympic journey continues as she is set to compete in the women's 10m pistol mixed team event on Monday and the women's 25m pistol events later in the competition.



# Culture Ministry

to organize three-day museum conference in Delhi

## Collaboration for a grand vision

Next week, curators, museum administrators and domain experts will gather in Delhi for a three-day conference to promote collaboration between the Centre and states for the 'Epochal Bharat Rashtriya Sangrahalaya' project.



## Event details

Organized by the Culture Ministry, the State Museum Conference will be held from August 1 to 3 at Bharat Mandapam, currently the venue for the 46th session of the UNESCO World Heritage Committee.

## World's largest museum

The proposed Epochal Bharat Rashtriya Sangrahalaya will have eight thematic sections showcasing 5,000 years of India's history. Spread over 1,54,000 square meters in the capital's North Block and South Block, it will be the world's largest museum.

## Expert Master Classes

According to officials, the conference will include master classes with experts from India and abroad, covering topics such as conservation, fine art handling, curation and global best practices in museum management

# Italy and China

sign 3-year action plan

## Renewed cooperation

Italy and China have signed a three-year action plan to implement previous agreements and explore new avenues of cooperation. The announcement was made by Italian Prime Minister Giorgia Meloni during her official visit to Beijing.



## Addressing trade concerns

Ms Meloni's visit is aimed at resetting ties with China amid concerns over a possible trade war with the European Union, while still seeking Chinese investments, especially in the auto manufacturing sector.

During his meeting with Chinese Premier Li Keqiang, Meloni said, "We have a lot of work ahead and I believe this effort can be beneficial in such a complex global stage and also important at the multilateral level."

## After Belt and Road Initiative

The visit comes after Italy's recent decision to withdraw from China's Belt and Road Initiative, a flagship policy of Chinese leader Xi Jinping designed to develop global infrastructure, boost trade and strengthen China's international ties.

# INDIAN SCIENTISTS

achieve unprecedented breakthrough in gene-editing

## Increased precision and efficiency

Scientists at CSIR-Institute of Genomics and Integrative Biology (IGIB) in New Delhi have created a more precise and efficient genome-editing system than existing CRISPR-based technologies.

This new system uses an improved version of FnCas9, an enzyme derived from *Francisella novicida* bacteria, engineered to increase binding affinity and reduce off-target effects.



## Wide applications and testing

The improved FnCas9 demonstrated higher DNA cutting rates and better targeting in laboratory tests, including in human kidney and eye cells.

It successfully corrected the genetic mutation that causes Leber congenital amaurosis type 2, an inherited form of blindness, showing significant therapeutic potential.

## Are states allowed to tax mining activities?

## Landmark judgment

On July 25, the Supreme Court affirmed that states have the authority to tax minerals in addition to the royalty that the Centre has to pay.

The landmark judgment, delivered by an 8:1 majority led by Chief Justice DY Chandrachud, upholds federalism by making it clear that the Mines and Minerals (Development and Regulation) Act, 1957, does not restrict the state's powers to tax mineral activities.

## Royalty vs tax

The judgment defines royalty not as a tax but as a contractual payment for mineral extraction.

The court highlighted that while states can tax mineral rights under the State List, it does not conflict with the Centre's regulatory authority under the Union List.

The dissenting opinion warned that additional state taxes could disrupt mineral markets and impede resource development.

## Future implications

The court will decide on July 31 whether to apply the ruling retroactively, which could affect the financial benefits of states with existing local mineral taxes.

## DEFENCE ACQUISITION COUNCIL

approves amendment to

# MQ-9B UAV deal with US Navy

### MQ-9B UAV deal approved

The Defence Acquisition Council (DAC), chaired by Defence Minister Rajnath Singh, has approved amendments to the deal for procurement of 31 MQ - 9B High Altitude Long Endurance (HALE) Unmanned Aerial Vehicles (UAVs) from General Atomics, US.

The amendments, which focus on indigenous content and related aspects, are in line with the Acceptance of Necessity (AoN) granted earlier.

### Procurement process and timeline

The US has completed its work by submitting a letter of offer and acceptance to India in March. India will now have to complete its internal processes and get the approval of the Cabinet Committee on Security before finalizing the deal.

The MQ - 9B and GE - 414 jet engine deal is expected to be concluded during the US President's visit to India for the Quad Leaders Summit in December.



### Additional Approvals

The DAC also approved Advanced Land Navigation System (ALNS) for armored fighting vehicles and AoN for 22 interceptor boats for the Coast Guard.

The ALNS procured from Bharat Electronics Limited will enhance navigation accuracy while the new interceptor boats will strengthen coastal surveillance and patrol capabilities.

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# Manu completes The set and wins another Bronze with Sarabjot.

Sarabjot Singh and Manu Bhaker, two history-makers, celebrate their bronze in the mixed team 10m air pistol event at the Paris Olympics on Tuesday at the Chateauroux shooting range.

After winning a bronze in the 10m air pistol mixed team event on Tuesday, Manu Bhaker will go down in Indian sporting history as the first athlete to win multiple medals at an Olympic Games. Her achievement would also be documented in history books as being made possible by her excellent teammate Sarabjot Singh.

After defeating South Korea 16–10, Manu would join her teammate Sarabjot on the podium in a matter of minutes. She would be wearing her second medal from the Games, a shiny bronze one, around her neck. With her place in history assured, she would be taking a photo with the gold and silver medal winner. However, she was attempting to hide as best she could during this stoppage by positioning herself to the left of the firing line. The computerized scoreboard displayed an 8.3, which was the lowest the 22-year-old had shot in the whole tournament thus far.

Points are awarded in mixed team competitions. Each team has two shooters who each get one shot; the team with the better overall score wins two points. Whoever reaches 16 points wins.

She wasn't only keeping India in the competition on Tuesday morning at Chateauroux's finals range; she was also well ahead of a Korean duo that featured Oh Ye Jin, who had won the women's solo title with a world record two days prior.

## Wonderful beginning

Manu had surpassed Sarabjot in five of the seven series, and in the sixth, they were tied. India has won five series to South Korea's two, leading 10 to 4. This was largely because of her efforts.

Sarabjot almost missed qualifying for his individual event final, but Manu was entering the final full of confidence from his previous medal victory.

However, she stumbled as severely as she possibly could, forcing a timeout just when it appeared that Manu would help the Indians cruise to win. Now was Sarabjot's moment to shine, and he did so brilliantly.

On his very next try, he scored his best point of the game, a 10.5. It increased Manu's lead over the Koreans and supported her score of 10.0, which was her second-lowest of the competition thus far.

The Koreans trimmed the deficit to make it 14-10 after the Indians won the following series to take a 14-6 lead. Manu shot a 9.4, which was another poor effort. Most of the time, it ought to have been sufficient to provide room for the Koreans to advance. However, they also created a subpar series. All Sarabjot needed to do was make another bad shot, and his scorecard appeared to be full of them. But he came through with a 10.2 when it counted most. Although it's not his best score, it's still quite sufficient.

Even though he delivered the game-winning blow, Sarabjot refuses to accept the credit for the victory. He'll talk about how the contest was hazy but express his gratitude for Manu and him accomplishing enough. "I don't recall much of the game, but I do recall what we both did."

With the world having just witnessed the hottest day on record, extended heat waves are becoming more frequent due to climate change. Not only do these harsh circumstances directly endanger our health, but they also have an adverse effect on pharmaceuticals. Heat has a significant impact on individuals taking medications as well as the effectiveness of such treatments, thus it must be carefully considered.

## Heat and Medicine: A Hazardous Mixture



Drugs used to treat a variety of common ailments can make a patient more sensitive to heat by preventing the body from responding normally to high temperatures, including sweating and blood flow control. Sweating is an essential part of the body's cooling process. In the event that this capacity is impaired, the body may quickly build up hazardous heat levels, which may result in heat stroke or other heat-related ailments.

Furthermore, if pharmaceuticals are not stored within a designated temperature range, excessive temperatures can hasten the deterioration of almost all types of medication, including capsules, sprays, tablets, and syrups. Heat-induced deterioration of medications may result in reduced effectiveness or even harmful effects, depending on the patient's condition, dosage, and environment.

# Substances that Increase Your Sensitivity to Heat

Many medications can make a person more sensitive to heat

## Blood pressure and heart failure medication:

**ACE Inhibitors:** These drugs lessen thirst, which increases the risk of dehydration.

**Calcium channel blockers:** They may cause mineral imbalances that exacerbate the body's inability to regulate temperature.

## Guidelines for Medications Storage

Extreme temperatures, including both hot and cold, can have a significant impact on a drug's effectiveness. Most medications should preferably be stored between 15 and 25 degrees Celsius in a cool, dry place away from the sun, while certain medications can be stored at temperatures as high as 30 degrees Celsius. Manufacturer websites typically offer detailed storage guidelines. It is challenging to forecast the extent of deterioration caused by elevated temperatures, as each medicine exhibits unique reactions.

It is never advisable to keep prescription drugs in hot cars or mailboxes for a long time. The stability and efficacy of medications can be adversely affected by excessive heat, according to Amy Bachyrycz, a pharmacy faculty member at the University of New Mexico. This necessitates careful storage practices.

It is advised that during hot weather, patients discuss any potential adjustments to drug regimes or dosages with their physicians. We can guarantee that medications continue to function and lessen the risks related to heat sensitivity by taking preventative measures.

## “ In conclusion

handling medications during heat waves requires heightened awareness and caution.

Patients who are aware of the risks and follow storage guidelines can protect their health and ensure that their medicines continue to function in excessively hot conditions. ”

## The different armed groups of Myanmar

The military has lost control of large parts of the country. Ethnic Armed Organisations (EAOs) and resistance groups such as the People's Defence Forces (PDFs) have made considerable gains.

Over the years, China has extended support to EAOs as well as the military, which ensured that Myanmar remained a country with fragmented sovereignty.

India can share its experiences and toolkit on federalism, such as institutional frameworks, financial arrangements and special provisions stemming from agreements like the Mizoram Peace Accord.