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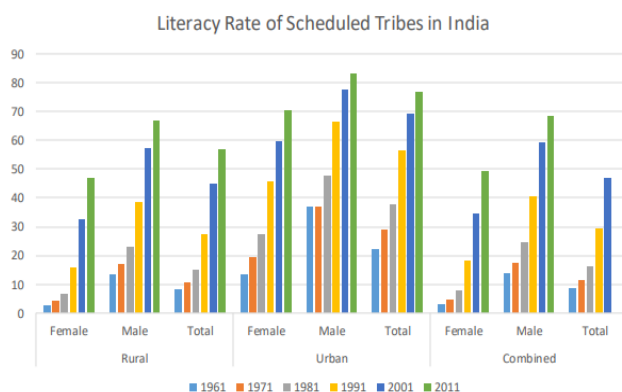
TRIBAL EDUCATION IN INDIA: PROBLEMS, POLICIES AND PERSPECTIVE

Context

- The **National Human Rights Commission (NHRC)**, India organized an open house discussion on 'Tribal Education in India: Problems, Policies and Perspective' in New Delhi.

Status of Tribal Education in India

- According to the **2011 census**, tribes constitute **8.6%** of the total population of the country.
- The literacy of the tribe was **8.53% in 1961** which has increased to **58.96%** in the year 2011.



Challenges in tribal education in India

- Language Barriers:** Tribal children usually speak their native languages at home, which are often not the medium of instruction in schools.
 - This language gap makes it difficult for them to understand lessons, leading to poor academic performance and higher dropout rates.
- Early Dropouts:** The high dropout rates among tribal students are a significant concern.
- Poverty:** The financial instability in many tribal families forces children to contribute to household income through labor, leaving little room for educational pursuits.
- Teacher Absenteeism:** In remote tribal areas, teacher absenteeism is a common problem, which significantly hampers the quality of education.
- Poor School Infrastructure:** Many schools in tribal areas suffer from inadequate infrastructure, including a lack of basic facilities such as classrooms, toilets, and drinking water.
- Teacher-Student Ratios:** Tribal schools often have an insufficient number of teachers, leading

to overcrowded classrooms and inadequate attention to individual students' needs.

Government Policies

- Eklavya Model Residential School (EMRS):** It is a central sector scheme introduced in the year 1997-98 to provide quality education to Scheduled Tribes (ST) students (Class 6th to 12th) in remote areas through residential schools.
- Scheme for the establishment of Ashram schools:** The Scheme for the establishment of Ashram schools in tribal sub-plan areas is a centrally sponsored scheme for construction of all girls' Ashram Schools and boys' Ashram Schools in certain extremism-affected areas.
 - States are responsible for the operation and maintenance of these schools.
- National Overseas Scholarship Scheme:** Scheme provides financial assistance to 20 students selected for pursuing higher studies abroad for Ph.D. and postdoctoral studies.
 - The applications are invited online on the National Overseas Portal.
- The Post-Matric Scholarship Scheme** provides financial assistance to ST students pursuing post-matric courses in recognised institutions.

Way Ahead

- There is an urgent **need for empirical data**, necessitating tribal-centric research in universities to better understand and address specific educational challenges faced by these communities;
- Increasing community engagement and outreach is crucial for improving enrollment rates, while ensuring basic facilities such as **drinking water, sanitation**, and adequate hostel accommodations, particularly in remote areas, is essential;
- Capacity-building programs for teachers** are necessary to sensitize them to tribal cultures and languages, facilitating better communication and understanding;
- Incorporating local languages at the primary level** is important for easing comprehension and enhancing the overall learning experience for tribal students.
- Also need to improve tribal representation in higher educational institutions like IITs and IIMs.

Source: PIB

CYCLONE ASNA

Context

- As per the India Meteorological Department (IMD) **Cyclone Asna** has formed over the **Kutch coast in Gujarat and adjoining areas of Pakistan**.

About

- This is the first cyclonic storm in the Arabian Sea in August since 1976.
- The name Asna, which means “the one to be acknowledged or praised”, has been **given by Pakistan**.
- Between 1891 and 2023, only three cyclonic storms formed in the Arabian Sea in August (in 1976, 1964, and 1944).

What are Cyclones?

- The word Cyclone is derived from the **Greek word Cyclos** meaning the **coils of a snake**. It was coined by **Henry Peddington** because the tropical storms in the Bay of Bengal and the Arabian Sea appear like coiled serpents of the sea.
- Cyclones are caused by atmospheric disturbances around a low-pressure area distinguished by swift and often destructive air circulation. The air circulates inward in an **anticlockwise direction in the Northern hemisphere and clockwise in the Southern hemisphere**.

Type of Disturbances	Wind Speed in Km/h	Wind Speed in Knots
Low Pressure	Less than 31	Less than 17
Depression	31-49	17-27
Deep Depression	49-61	27-33
Cyclonic Storm	61-88	33-47
Severe Cyclonic Storm	88-117	47-63

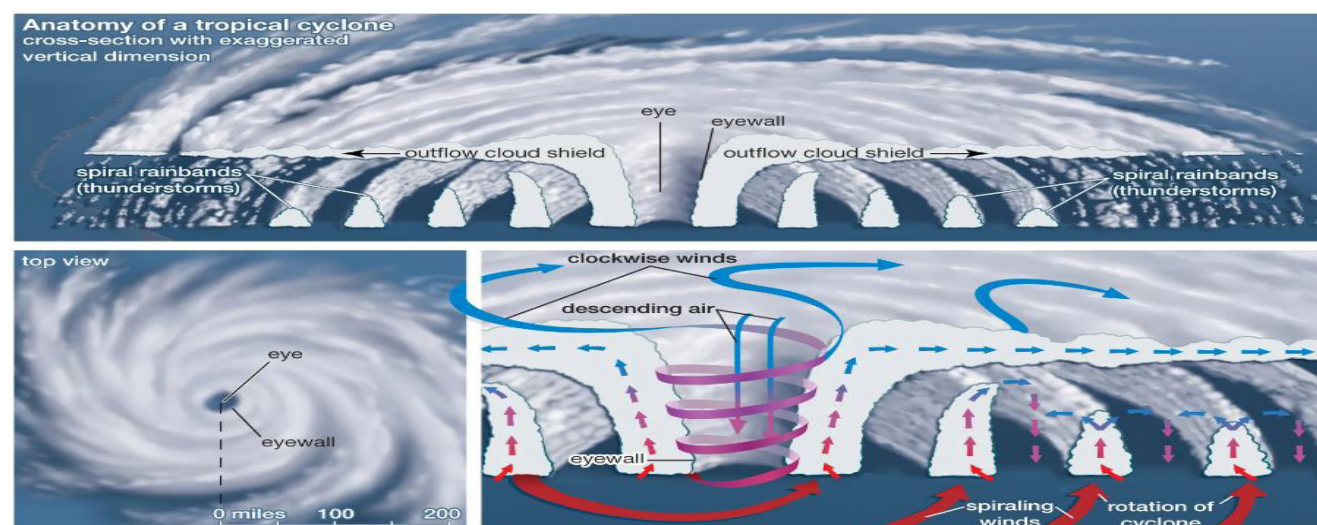
- Worldwide terminology:** Cyclones are given many names in different regions of the world:
 - They are known as **typhoons** in the China Sea and Pacific Ocean; **hurricanes** in the West Indian islands in the Caribbean Sea and Atlantic Ocean; **tornados** in the Guinea lands of West Africa and southern USA.; **willy-willies** in north-western Australia and **tropical cyclones** in the Indian Ocean.

How a Cyclone is formed?

- Conditions:** Cyclones typically form over **warm ocean waters**, the warmth provides the necessary **heat and moisture** to fuel the cyclone.
 - Warm water causes the ocean to **evaporate**,

creating warm, moist air. This moist air rises from the ocean surface, leading to a **decrease in air pressure at the surface**.

- Formation of a Low-Pressure System:** When the air rises up and away from the ocean surface, it creates an **area of lower air pressure below**.
 - It causes the air from surrounding areas with higher pressure to move towards the low-pressure area which further leads to **warming up of the air and causes it to rise above**.
- Cyclonic Circulation:** The rotation of the Earth (Coriolis effect) causes the rising air to start spinning around the low-pressure center. This spinning motion leads to the development of cyclonic circulation.



- **As the wind system rotates with increasing speed, an eye gets formed in the middle.**
 - ♦ The centre of a cyclone is very calm and clear with very low air pressure. The difference of temperature between the warm, rising and the cooler environment causes the air to rise and become buoyant.
- **Dissipation:** A cyclone will eventually weaken and dissipate when it moves over cooler waters, encounters dry air, or interacts with land, which disrupts the system's supply of warm, moist air.
- It aims to showcase India's strides in Fintech and bring together key stakeholders of the sector.
- 800 industry experts, including policymakers, regulators, senior bankers, and academicians from India and other countries, will participate in the GFF.

What is Fintech?

- The fintech sector in India refers to the **use of technology to enhance, innovate, and streamline financial services.**
- This sector encompasses a wide range of financial products and services, including **digital payments, lending, insurance, wealth management, and personal finance**, all powered by technology.

Nomenclature

- The names are maintained and updated by an **international committee of the World Meteorological Organization.**
- Cyclones in the North Indian Ocean region are named by the **regional specialized meteorological centers (RSMCs)** in India, Bangladesh, Myanmar, Oman, Pakistan, and Sri Lanka.
 - ♦ Each country contributes names to a list used on a **rotating basis.**
- The primary reason for naming cyclones is to **make communication easier and more efficient.**
 - ♦ Names help in distinguishing between multiple storms occurring at the same time and make warnings more understandable for the public.

Fintech Sector in India

- The Indian fintech industry is estimated to be around **USD 110 billion in 2024** and is projected to reach about **USD 420 billion by 2029.**
- Indian fintechs were the **2nd most funded startup sector** in India in 2022.
- From just **1 Mn transactions in 2016**, UPI has since crossed the landmark **10 Bn transactions.**

Growth Drivers

- **Digital Infrastructure: Open Application Programming Interface (API) Platforms** i.e. Aadhar, UPI, Bharat Bill Payments, GSTN.
- **Technological Innovation:** Implementation of new business models driven by technologies such as Artificial Intelligence and Machine Learning
- **Increasing internet & smartphone penetration:** India already has the 2nd highest number of smartphone users globally and is the 2nd largest Internet user market.
- **Favourable Demographics:** 68% of India's population is young and 55% of its population is in the age group of 20-59 (working population) in the year 2020 and is estimated to reach 56% of the total population by 2025.
 - ♦ By 2030, India will add 140 Mn middle-income and 21 Mn high-income households which will drive the demand and growth of Indian FinTech space.
- **Financial Inclusion Initiatives:** Financial inclusion programmes such as PMJDY, DAY-NRLM, Direct Benefit Transfer, Atal Pension Yojana among others have accelerated the digital revolution and brought more citizens, especially in rural areas, within the ambit of digital financial services.

India Meteorological Department (IMD)

- It was established in 1875.
- It is the principal government agency in all matters relating to meteorology and allied subjects.
- It is under the Ministry of Earth Sciences (MoES).

Source: TH

FINTECH IN INDIA

Context

- The Prime Minister addressed the **Global Fintech Fest (GFF) 2024** at the Jio World Convention Centre in Mumbai.

About Global Fintech Fest (GFF)

- GFF is jointly organized by the **Payments Council of India, the National Payments Corporation of India and the Fintech Convergence Council.**

Challenges

- **Regulation Complexity:** The fintech sector is regulated by multiple agencies (e.g., RBI, SEBI), leading to a complex regulatory environment.
- **Cybersecurity Risks:** The increasing use of digital platforms raises concerns about data breaches and cyberattacks.
 - ◆ Ensuring robust security measures to protect sensitive financial data is crucial.
- **Lack of Digital Literacy:** A significant portion of the population still lacks digital literacy and access to technology, which limit the reach and effectiveness of fintech solutions.
- **Customer Trust:** Building trust in digital financial services, especially among older demographics and those new to technology is challenging.
- **Policy Changes:** Changes in economic or financial policies, including taxation and interest rates majorly affect the fintech ecosystem.
- **Innovation and Scalability:** Keeping pace with rapid technological advancements and ensuring that systems can scale effectively as user demand grows is a tough challenge.

Government Initiatives for Fintech Sector in India

- **Pradhan Mantri Jan Dhan Yojana (PMJDY):** Aims to increase financial inclusion by facilitating the enrollment of new bank accounts for direct benefit transfers and access to financial services.
- **India Stack:** A societal initiative to build public digital infrastructure that supports both public and private digital initiatives, particularly in the finance sector.
- **Aadhaar Enabled Payment System (AePS):** Allows individuals to conduct financial transactions using their Aadhaar number and biometric verification (fingerprint or iris scan) on Micro-ATMs.
- **Central KYC (Know Your Customer):** A central repository designed to reduce the need for multiple KYCs across different financial institutions.
- **Unified Payments Interface (UPI):** A scalable platform that supports digital payments across India.
- **Bharat Bill Payment System (BBPS):** Enhances consumer convenience by enabling bill payments across various utilities and sectors, covering all recurring billers except prepaid recharges.
- **National Digital Health Mission (NDHM) and Related Initiatives:** Government-led efforts, including NDHM and DISHA, aim to transform the

insurance and healthcare sectors through digital infrastructure.

- **Fintech Hub at IFSC, GIFT City:** A world-class fintech hub developed in Gandhinagar, Gujarat, to promote India as a global fintech leader.

Conclusion

- The fintech sector in India is vibrant and rapidly evolving, playing a significant role in the country's financial ecosystem by enhancing accessibility, efficiency, and inclusion.

Source: TH

GDP GROWTH RATE TO FIVE-QUARTER LOW OF 6.7%

Context

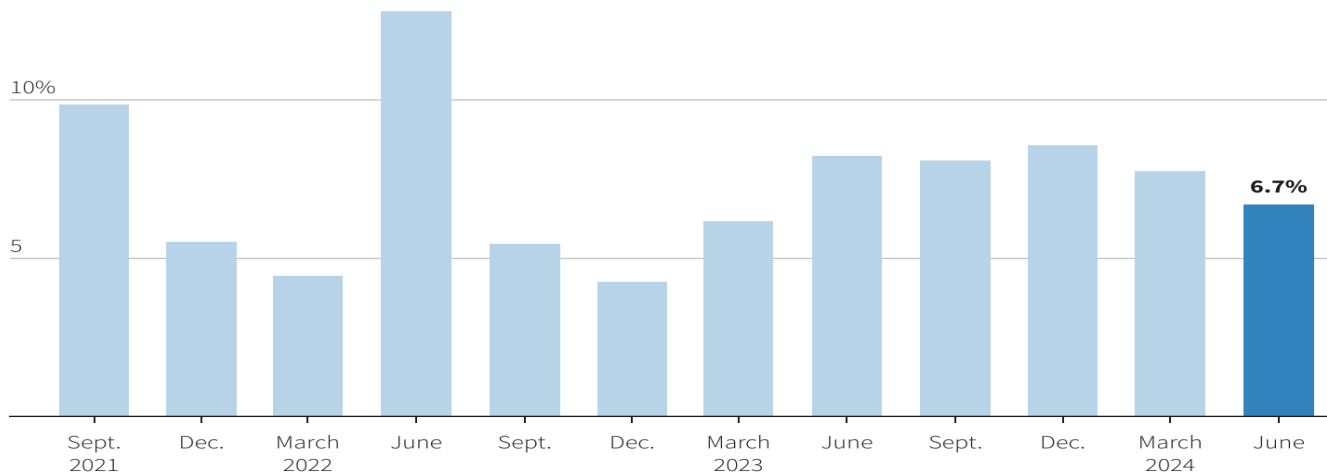
- India's real Gross Domestic Product (GDP) growth rate **slipped to a five-quarter low of 6.7%** in the first quarter of the **fiscal year 2024-25 (April-June)** that was primarily driven by slower growth in three key sectors: **agriculture, government spending, and services.**

Key Sectors of Slower Growth

- **Agriculture Sector:** The **Gross Value Added (GVA)** growth rate for agriculture in April-June was **2.0%, down from 3.7%** in the same period the previous year.
 - ◆ Factors such as monsoon variability and supply chain disruptions likely contributed to this slowdown.
- **Government Spending:** Public spending, especially during the election phase, **contracted by 0.2%** in April-June. This decrease in government final consumption expenditure impacted overall economic growth.
 - ◆ The government's **capital spending declined significantly (by 35%)** during this period, which further affected growth.
- **Services Sector:** The services sector, which includes a wide range of activities such as finance, retail, and hospitality, posted an **overall growth rate of 7.2%** in April-June.
 - ◆ However, this was notably **lower than the 10.7% growth** seen in the year-ago period.
 - ◆ The services sector had experienced a strong recovery in the first few years after the Covid-19 pandemic, and maintaining those high levels led to a strong increase in the base. Consequently, the growth rate moderated.

India GDP growth lowest since Jan-March 2023 quarter

Economic activity was at 6.7% percent in the April-June Quarter, lower than the Reuters poll, that predicted a growth of 6.9%.



Source: LSEG Workspace | Reuters, Aug. 30, 2024 | By Vineet Sachdev

Other Sectors

- **Manufacturing and construction sectors** showed **positive signs of growth**.
 - ♦ Manufacturing grew at 7.0%, and construction at 10.5% in April-June, compared to 5% and 8.6% growth, respectively, in the year-ago period.

Consumption Demand

- **Private final consumption expenditure (PFCE)**, a proxy for consumption demand, recorded a seven-quarter high growth of 7.4% in Q1, up from 5.5% in the previous year.
 - ♦ Consumer spending constitutes about 60% of GDP, compared to 4% in the previous quarter.
- The expectation is that rural consumption demand will improve, leading to overall growth of 6.5-7% in the financial year.

Conclusion

- While the slowdown in GDP growth is concerning, there are positive signs in certain sectors. The government's efforts to boost capital spending and enhance consumption demand will be crucial for economic recovery in the coming quarters.

Source: TH

DRONE TECHNOLOGY IN AGRICULTURE

In News

- Farmers in Bhagthala Khurd, Kapurthala, and Amritsar are using drones for spraying pesticides on their maize and moong crops

Do you know ?

- Drones, or unmanned aerial vehicles (UAVs), are computerized flying vehicles that can operate autonomously or be controlled remotely.
- Drones use GPS for route planning and navigation.
- They can be managed through remote operators for precise control.
- Drones can be equipped with various sensors, including:
 - ♦ Spectral Cameras: For capturing detailed images across different wavelengths.
 - ♦ Thermal Imaging Units: For monitoring temperature variations in crops.
 - ♦ LiDAR Systems: For creating high-resolution maps and 3D models of fields.

Drone Technology in Agriculture

- The Indian drone market for agriculture is in its initial stages but shows promising growth.
- In Punjab, 93 out of 100 drones made available to farmers by the **Indian Farmers Fertiliser Cooperative (IFFCO)** under the **Centre's 'NAMO Drone Didi' scheme** are already operational.
- These drones cost Rs 16 lakh each, and come equipped with 12-litre water tanks.



Benefits

- **Health Protection:** Drones reduce farmers' direct exposure to harmful pesticides, which can lead to serious health issues like cancer and kidney ailments.
- **Efficiency:** Drones complete spraying tasks in 5-7 minutes per acre, compared to several hours manually.
 - ◆ They also ensure uniform application, improving crop yields.
 - ◆ Data from drones helps identify areas needing attention, which can lead to improved crop yields and increased profits.
- **Nano Fertilisers:** Drones handle nano fertilisers efficiently, ensuring uniform application of small quantities that are otherwise challenging to spread manually.
- **Pest Control:** Drones provide timely and effective application during pest infestations like pink bollworm, locusts, and whiteflies.
- **Environmental Benefits:** Drones can increase nutrient absorption from nano fertilisers to up to 90%, reducing runoff and pollution.
 - ◆ Leaf-based application is less polluting than soil-based methods.
- **Water Conservation:** Drones cut down water use by up to 90% compared to traditional pesticide application methods.
- **Reduced Costs:** Drones minimize the need for manual labor and reduce pesticide and chemical usage, lowering overall costs.
- **Additional Uses:** Drones are also being used for dropping seed balls (soil and cow dung balls with seeds) for potential reforestation projects.

Challenges of Adopting Drone Technology

- **Job Loss:** The use of drones may lead to reduced demand for manual labor, impacting job opportunities for laborers.
- **Lack of Knowledge and Training:** Farmers may lack the necessary skills and training to operate drones effectively.
- **Cost:** The high cost of drones can be a barrier for many farmers.
- **Regulatory Barriers:** There may be regulatory challenges that complicate the adoption of drones in agriculture.

Initiatives:

- The Digital India campaign aims to improve digital infrastructure and provide training.
- Organizations like the Indian Council of Agricultural Research (ICAR) are promoting precision agriculture technologies, including drones.
- **Production linked incentive (PLI) scheme:** This scheme offers a considerable financial push of Rs. 120 crore (US\$ 14.39 million) to incentivise domestic drone manufacturing and reduce import reliance.
- **Sub-mission on agricultural mechanization (SMAM):** This initiative provides financial aid to farmers who purchase drones, making this technology more accessible.
- The Government of India has launched the **Namo Drone Didi Scheme** with an aim to empower the women Self Help Groups (SHGs) and to provide access to modern agricultural technology.
- **Support and Training:** Efforts are being made to provide necessary training and support to farmers to overcome barriers to drone adoption.

Conclusion and Way Forward

- Drone technology has the potential to revolutionize agriculture by enhancing efficiency, yields, and cost-effectiveness.
- Drones may revolutionise pesticide or fertiliser application in Punjab fields, which has traditionally been carried out manually either by hired labourers or the farmers themselves.
- Therefore It is crucial for farmers and policymakers to collaborate to address challenges and ensure that the benefits of drones are realized while mitigating any concerns.

Source:IE

NEWS IN SHORT

CABINET SECRETARY

Context

- Recently, Dr. T.V. Somanathan assumed as the Cabinet Secretary after the superannuation of his predecessor, Shri Rajiv Gauba.

About the Cabinet Secretary

- He is the **administrative head** of the Cabinet Secretariat who is also the **ex-officio Chairman of the Civil Services Board**, and **serves as the head of the Indian Administrative Service (IAS)**.
- He plays a critical role in coordinating policy implementation, inter-ministerial communication, and administrative matters at the highest level.

Roles and Functions

- Coordinating Cabinet Meetings:** It ensures smooth functioning of Cabinet meetings, where crucial decisions are made. These meetings involve discussions on policy matters, legislative proposals, and administrative issues.
- Inter-Ministerial Coordination:** It acts as a bridge between various ministries and departments by facilitating communication, resolves conflicts, and ensures effective implementation of government policies.
- Advising the Prime Minister:** It provides expert advice to the Prime Minister on administrative matters, policy formulation, and governance. Its insights are invaluable in shaping the country's direction.
- Administrative Leadership:** As the senior-most civil servant, the Cabinet Secretary leads the bureaucracy. His decisions impact the functioning of the entire administrative machinery.

Cabinet Secretariat

- It is responsible for the administration of the **Government of India (Transaction of Business) Rules, 1961** and the **Government of India (Allocation of Business) Rules 1961**, facilitating smooth transaction of business in Ministries/Departments of the Government.
- It provides **Secretarial assistance to the Cabinet and its Committees**, and also assists in decision-making in Government by **ensuring Inter-Ministerial coordination**, ironing out differences amongst Ministries/Departments and evolving consensus through the **instrumentality of the standing/ad hoc Committees of Secretaries**.
- It ensures that the **President, the Vice President and Ministers** are **kept informed of the major activities of all Ministries/Departments** by means of a monthly summary of their activities.
- Management of major crisis situations** in the country and coordinating activities of various Ministries in such a situation is also one of the functions of the Cabinet Secretariat.

Source: News On AIR

LISTERIA

Context

- The US has reported more than 50 illnesses and nine deaths in the Listeria outbreak.

What is listeria and listeriosis?

- Listeria or Listeria monocytogenes is a **type of bacteria** that can survive on surfaces, such as meat slicers, and in foods, even at **refrigerated temperatures**.
- Listeria-contaminated food can lead to an infection called **listeriosis**.
- The infection is especially **dangerous for people** with weakened immune systems, pregnant women and people over 65.
- Its **symptoms** include fever, chills, and headache and can take up to ten weeks to manifest in some individuals.

Prevention and Treatment

- Reheating foods to a sufficiently high temperature before consumption can eliminate the bacteria.
- Also, listeriosis is treatable and one of the most prescribed drugs is **Ampicillin**.

Source: AIR

PRIVATE FM RADIO CHANNELS IN 234 NEW CITIES

Context

- The Union Cabinet has approved the proposal for conduct of **3rd batch** of ascending e-auctions for **730 channels in 234 new cities** with estimated reserve price of Rs.784.87 crore under **Private FM Radio Phase III Policy**.

About

- The Cabinet also approved the proposal to charge **Annual License Fee (ALF)** of FM channels as **4% of Gross Revenue** excluding **Goods and Services Tax (GST)**. This will be applicable for 234 new cities / towns.
- It will lead to creation of new employment opportunities, boost to local dialect and culture and **'vocal for local'** initiatives.
- Many of these cities and towns are located in **aspirational districts** and areas affected by **Left-Wing Extremism**.

FM Radio Phase-III Policy

- Phase III of the FM Radio Policy was introduced to expand **private FM radio broadcasting** to cover more cities, particularly those that remained uncovered in previous phases.
 - ♦ The first two batches were auctioned in **2015** and **2016** respectively.
- Under phase III, the **Foreign Direct Investment (FDI)** and **Foreign Institutional Investor (FII)** limits in private FM radio companies were increased from **20% to 26%**.

Source: PIB

UNIVERSITY OF SOUTHAMPTON'S NEW CAMPUS**In News**

- The University of Southampton (UK) has been granted a license by the Indian government to set up a comprehensive campus in Gurgaon.

About

- The campus will be located in Gurugram, National Capital Region (NCR).
- It is expected to begin offering programs in July 2025.
- This initiative is part of the **National Education Policy (NEP) 2020**, aimed at enhancing India's educational standards and providing world-class education domestically.
- **Courses Offered:** The campus will offer programs in business and management, computing, law, engineering, art and design, biosciences, and life sciences.
- **Degrees awarded** by the Indian campus will be equivalent to those from the main University of Southampton in the UK.

- **Regulatory Framework:** The University Grants Commission (UGC) Regulations for setting up foreign higher educational institutions in India were notified in November 2023.

Importance of the Initiative

- Addresses challenges like visa restrictions and job uncertainties for Indian students pursuing education abroad.
- Provides access to top international education without leaving India.
- The initiative aims to develop world-class, work-ready graduates and contribute to India's growing knowledge economy.

Source:BS

CENTRAL FINANCIAL ASSISTANCE (CFA) TO THE STATE GOVERNMENTS FOR DEVELOPMENT OF HYDRO ELECTRIC PROJECTS**Context**

- The Union Cabinet has approved the Central Financial Assistance towards Equity Participation by the State Governments of the North Eastern Region for development of Hydro Electric Projects in the region.

About

- The Scheme formulated by the **Ministry of Power** provides for formation of a **Joint Venture (JV) Company** for all the projects of a Central PSU with the State Govt.
 - ♦ A cumulative hydro capacity of about **15000 MW** would be supported under the scheme.
- This scheme has an outlay of **Rs. 4136 crore** to be implemented from **FY 2024-25 to FY 2031-32**.
- The scheme would be funded through **10% Gross Budgetary Support (GBS)** for North Eastern Region from the total outlay of the **Ministry of Power**.

Significance

- **Participation of the State Governments** in the hydro development shall be encouraged and risk and responsibilities shall be shared in a more equitable manner.
 - ♦ The issues such as **land acquisition, rehabilitation & resettlement and local law & order issues** would be reduced with the State Governments becoming stakeholders.

- Development of hydroelectric projects shall also contribute towards realization of **India's Nationally Determined Contribution (INDC)** of establishing **500 GW** renewable energy capacity by **2030** and would help integration of Renewable Energy sources in the grid thus enhancing flexibility, security and reliability of the national grid.

Other initiatives

- To promote the hydro power sector and to make it more viable, the **Government of India in 2019**, approved measures, such as;
 - ◆ Declaring large hydro power projects as Renewable Energy sources,
 - ◆ Hydro Power Purchase Obligations (HPOs),
 - ◆ Tariff rationalization measures through escalating tariff,
 - ◆ Budgetary support for flood moderation in storage HEP and
 - ◆ Budgetary support for the cost of enabling infrastructure, i.e., construction of roads and bridges.

Source: PIB

WORLD GOLD COUNCIL (WGC)

Context

- The World Gold Council (WGC) has raised its projection for India's gold consumption in 2024 to 850 tonnes from 750 tonnes.

World Gold Council (WGC)

- WGC is an **international trade association** for the gold industry **formed in 1987** by some of the world's most forward-thinking mining companies.
- **Governance:** The World Gold Council is governed by the Board of Directors, composed of member company representatives (Chairperson or Chief Executive Officer) and the World Gold Council's Chief Executive Officer.
- **Members:** The World Gold Council's **32 Members**.
- It is **headquartered in London** and has offices in India, China, Singapore, the UAE and the United States.

Source: ET

PAYMENT PASSKEY SERVICE

Context

- Recently, **Mastercard** chose India for the global launch of **Payment Passkey Service**, recognising its tech-savvy population and vibrant e-commerce landscape.

About the Passkeys

- These **replace traditional passwords** by leveraging biometric authentication methods—such as facial recognition, fingerprints, or swipe patterns—across all your devices.
- It combines the phone's biometrics (like fingerprint or face unlock) with robust encryption.
- In October 2023, **Google** declared passkeys as **its default login method** worldwide.
- The state of Michigan implemented passkeys on its website, resulting in 1,300 fewer calls related to password resets in just one month.

How Do Passkeys Work?

- **Key Creation:** When one signs into an account, its **device generates a pair of keys**—one shared with the website and one private on your device.
 - ◆ This dynamic duo ensures secure access without the hassle of passwords.

Why Passkeys?

- **Password Fatigue:** Multiple passwords, each requiring a unique combination of uppercase letters, lowercase letters, numbers, and special characters.
- **Data Breaches:** In **2023 alone**, 353 million Americans were impacted by breaches. **In the first half of 2024**, over a billion people had their data stolen.

Source: BL

SOLAR ENERGY CORPORATION OF INDIA LTD GRANTED NAVRATNA STATUS

Context

- **Solar Energy Corporation of India Ltd (SECI)**, a Central Public Sector Enterprise (CPSE) under the Ministry of New and Renewable Energy has been granted the **Navratna status by the Ministry of Finance**.

About

- India's central public sector enterprises (CPSEs) are classified into **three major categories - Miniratna, Navratna and Maharatna CPSEs.**
- The main **aim of assigning the "ratna" statuses** was to give **operational freedom and decision-making power to the state-run entities.**

Classification

- **Miniratna Status:** CPSEs are put in two sub-categories under the Miniratna status - Miniratna-I and Miniratna - II.
 - ♦ **Category-I status:** CPSEs which reported profits in three consecutive years, have a pre-tax profit of 30 crore or more in at least one of the three years, and have a positive net worth are classified as a Miniratna-I PSU.
 - ♦ **Category-II status:** PSUs with a profit for the last three successive years and have a positive net worth are classified as Miniratna-II companies.
- **Navratna status:** PSUs that have a Miniratna-I status and have obtained an "Excellent" or "Very Good" MoU rating in three out of the last five years and have a composite score of 60 or more in six selected performance indicators are eligible.
- **Maharatna status:** A PSU is eligible for being granted a "Maharatna" status, in case it meets the following criteria:
 - ♦ Should have a "Navratna" status
 - ♦ Should be listed on the Indian stock exchanges
 - ♦ Should be compliant with minimum shareholding norms
 - ♦ Average annual turnover of more than 25,000 crore and average annual net worth of over 15,000 crore in the last three years
 - ♦ Average annual net profit of over 5,000 crore in the last three years along with significant global presence.
 - ♦ BHEL, BPCL, Coal India, GAIL, HPCL, Indian Oil, NTPC, ONGC are some of the Maharatna PSUs.

Source: PIB

SAMUDRA PRATAP**Context**

- The indigenously built pollution control vessel of the **Indian Coast Guard (ICG)**, Samudra Pratap, was launched in Goa.

About

- The Ship has been built by **Goa Shipyard Limited (GSL)** for the Indian Coast Guard (ICG).
- The vessel will **help to check the oil spillage** in the country's sea coast. It contains specialized equipment for the containment, recovery, separation, and dispersal of pollutants.
 - ♦ Samudra Pratap can recover oil at a rate of **300 tonnes per hour** and has a storage capacity for 300 tonnes or 1,000 tonnes in inflatable barges.

Indian Coast Guard (ICG)

- ICG is a maritime law enforcement and search and rescue agency of India with jurisdiction over its territorial waters including its contiguous zone and exclusive economic zone.
- **Established** in 1977 by the Coast Guard Act, 1978 of the Parliament of India.
- **Parent Agency:** Ministry of Defence
- **Headquarters:** New Delhi
- **Head:** Director General Indian Coast Guard (DGICG)

Missions of Indian Coast Guard

- Safety and protection of artificial islands, offshore terminals and other installations.
- Protection and assistance to fishermen and mariners at sea.
- Preservation and protection of marine ecology and environment including pollution control.
- Assistance to the Department of Customs and other authorities in anti-smuggling operations.

Source: PIB

PROJECT NAMAN**In News**

- Indian Army launched the first phase of Project NAMAN

About Project NAMAN

- Project NAMAN is designed to provide dedicated support and services to Defence Pensioners, Veterans, and their families.
- It centers around the **SPARSH (System for Pension Administration Raksha)** digital pension system, aiming to streamline pension processes.

- **Partnership and Implementation:** The project involves a tripartite MoU between the Indian Army's Directorate of Indian Army Veterans, Common Service Centre (CSC) e-Governance India Limited, and HDFC Bank Limited.
- **Phase One Expansion:** 14 CSCs established in key locations: New Delhi, Jalandhar, Leh, Dehradun, Lucknow, Jodhpur, Bengdubi, Gorakhpur, Jhansi, Secunderabad, Saugor, Guntur, Ahmedabad, and Bangalore.
 - ♦ Plan to expand to approximately 200 centres nationwide in the next 2-3 years.
- **Impact and Benefits:** Project NAMAN enhances welfare for veterans and their families, provides commonly required e-Governance services, and creates entrepreneurial opportunities for Veterans and Next of Kin (NOK), empowering them to contribute to their communities.

Source: PIB

VULTURE COUNT 2024

Context

- The **World Wide Fund for Nature-India** has launched Vulture Count 2024.

About

- It is a nationwide **citizen-science initiative** designed to monitor and conserve the country's rapidly declining vulture populations
- The launch of the initiative coincides with **International Vulture Awareness Day** on **September 7, 2024**.

Vulture

- Vultures are one of the 22 species of large **carrion-eating birds** that live
- mostly in the tropics and subtropics.
- **India is home to nine species of Vulture** namely the Oriental white-backed, Long-billed, Slender-billed, Himalayan, Red-headed, Egyptian, Bearded, Cinereous and the Eurasian Griffon.

Importance of Vultures

- They serve as **nature's clean-up crew** by feeding on the infected carcass which kills the Pathogens and breaks the chain of infections.
- Vultures are critically important to the **Parsi community** as it leaves its dead bodies atop the **Towers of Silence** to be consumed by vultures.

Major Threats

- Use of toxic non-steroidal anti-inflammatory drugs (NSAIDs) like **Diclofenac**, Lack of Nesting Trees, Electrocutation by power lines, Food Dearth and Contaminated Food, Pesticide poisoning etc. threaten vultures across the country.
- According to **BirdLife International**, the vulture population declined from over **40,000** in 2003 to **18,645** in 2015.
- India has **lost 99 percent** of the population of the three species — Oriental White-Backed Vulture, Long-billed Vulture and Slender-billed Vulture.

Conservation Status

- **Schedule-1 of the Wildlife Protection Act 1972:** Bearded, Long-billed, Slender-billed, Oriental white-backed.
 - ♦ Rest are protected under '**Schedule IV**'.
- **IUCN Red List;**
 - ♦ **Critically Endangered:** Oriental White-backed Vulture, Long-billed Vulture, Slender-billed Vulture and Red-headed Vulture.
 - ♦ **Endangered:** Egyptian Vulture.
 - ♦ **Least Concerned:** Eurasian Griffon.
 - ♦ **Near Threatened:** Himalayan, Bearded and Cinereous.

Source: DTE

METAL-ORGANIC FRAMEWORKS (MOF)

Context

- Researchers of Institute of Nano Science and Technology (INST), have developed **electrochemical and optical biosensors** based on **nano polymers multifunctional Metal-organic framework (MOF) and 2-dimensional (2D) materials**.

About

- The researchers have utilized MOFs, 2D nanomaterials (e.g., MoS₂, MXenes) and their composites.
- **Properties:** Both MOFs and 2D classes of materials are known for their large surface area, functionality, and optoelectronic properties.
 - ♦ They also have a wide range of synthesis methods and can be developed into disposable electrodes, optical kits, fiber optic sensors, colorimetric strips, etc.

- ♦ The application of MOFs, 2D materials and their composites allows **greater sensitivity** over many of the existing methods for the **electrochemical and optical sensing of analytes**.
- **Application:** Metal-organic frameworks (MOF) and 2-dimensional (2D) materials, can be used for **rapid and convenient detection of several health, food quality, and environmental parameters**.
- ♦ They can pave the way for **low-cost point of care devices** for quick detection and screening of diseases such as **anaemia, cancer and so on**.
- ♦ Some of these sensors can be deployed as **gas and heavy metal detection tools** to monitor the environmental quality.

Source: PIB

