Content

Polity & Governance

Indian Stamp Bill, 2023

Context:
The Centre has proposed to replace the existing India **Stamp Act, 1899 with the new Indian Stamp Bill, 2023.**

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Key changes:
- Provisions allow states and the Centre to introduce new instruments for stamp duty.
- The bill suggests withdrawing duty exemption for ships and vessels.
- Increase in the monetary threshold for revenue receipt issuance from Rs 20 to Rs 1,000.
- Inclusion of provisions for digital signatures.
- Redefinition of terms like "executed" and "execution" to mean "signed" and "signature," including electronic records and signatures as defined by the **Information Technology (IT) Act, 2000.**

CBSE Urges Schools for National Credit Framework Preparation

Context:
- CBSE has requested affiliated schools to plan **credit allocation patterns** in line with the **National Credit Framework (NCrF).**
- Draft guidelines have been proposed by **CBSE**, currently open for feedback.

Credit Allocation and Subject Structure:
- CBSE plans to introduce a **new credit framework for Classes 9 to 12,** emphasizing the allocation of credits to subjects.
- Students are required to clear five subjects, with additional hours allocated for **internal assessments in subjects like Physical Education, Health, Art Education, and a third language.**

Expansion of Subjects:
- The proposal suggests an expansion of compulsory subjects from 5 to 10 for Classes 9 and 10.
- Additional subjects include a compulsory **third language, interdisciplinary studies, physical education, art education, and a skill-related subject.**

Schools are encouraged to adopt the credit system internally to ensure preparedness for official implementation next year.

India Energy Week 2024

IEW INDIA ENERGY WEEK

UNDER THE PATRONAGE OF

MINISTRY OF PETROLEUM AND NATURAL GAS

6-8 February 2024, Goa, India

Context:
Prime Minister Narendra Modi is set to inaugurate India second edition of **Energy Week 2024 in Goa** on Tuesday.

Overview:
- The Energy Week, scheduled from February 6 to 9, will be India's largest energy

exhibition and conference.
- It aims to achieve **'aatmanirbharta'** in energy and will include a roundtable with global oil & gas CEOs, emphasizing India's energy transition goals.
- Around **17 energy ministers** from different countries are expected to attend, showcasing a global perspective.
- **The event will focus on encouraging and integrating startups into the energy value chain, fostering innovation.**
- The Energy Week will have six dedicated country pavilions- **Canada, Germany, the Netherlands, Russia, the UK and the USA.**
- Organized by the **Federation of Indian Petroleum Industry** under the aegis of the **ministry of petroleum and natural gas**, India Energy Week, 2024 would provide a platform for discussions, knowledge exchange, and collaboration among industry experts, policy makers, academia and entrepreneurs.

Uttarakhand's UCC Bill

Context:
- Uttarakhand Chief Minister **Pushkar Singh Dhami** presents the **Uniform Civil Code (UCC) Bill in the State Assembly.**
- The UCC encompasses various aspects such as live-in relationships and divorce, aiming for uniformity across communities.
- Notably, **Scheduled Tribes** are excluded from the Bill's provisions.

Key Provisions
- The UCC ensures equal rights in divorce matters, eliminating practices like **'Halala' and 'Iddat'.**
- Marriages under the UCC are restricted to **one man and one woman,** with specified ages for marriage.
- Registration of marriages and divorces becomes mandatory, **penalizing non-compliance.**
- The Bill addresses **live-in relationships,** imposing penalties for non-registration or false information.
- **Children** born from such relationships are recognized as legitimate under the UCC.
- **Sons and daughters are granted equal rights** in property inheritance, regardless of their status.
- **Widows and children gain equal inheritance** rights in a deceased person's property, a departure from previous laws.

About UCC:
- **Article 44,** enshrined in Chapter IV of the 1950 Constitution of India, outlines that **"The State shall make efforts to ensure the implementation of a Uniform Civil Code (UCC) across all of India's territories."**
- **Chapter IV of the Indian Constitution elaborates on DPSP (Articles 36-51),** which are guidelines for the State to enact policies for the overall welfare of society.
- Our Constituent Assembly adopted the Directive Principles of State Policy (DPSP) from the **1937 Irish Constitution.**
- The UCC seeks to establish uniform personal laws applicable to all religions in India.
- Areas covered by the UCC include Marriage, Inheritance, Maintenance, Guardianship, Succession, Adoption, and others.

Committee on Population Growth and Demographic Changes

Context:
- Finance Minister Nirmala Sitharaman announced the formation of a high-power committee.
- **Committee's focus:** Address challenges arising from "fast population growth and demographic changes."

Key Points:
Mandate of the Committee
- Committee tasked with making comprehensive recommendations aligned with the goal of **Viksit Bharat (developed India).**

Lack of Reliable Data
- The committee's announcement follows the **indefinite postponement of the Censu**s, leading to a lack of reliable data on population growth.
- Despite limited statistics, security concerns in border areas are being highlighted based on perceived demographic changes.

Maharashtra clears 10% quota for all Maratha's

- Maharashtra Chief Minister Eknath Shinde and his Cabinet approved a Bill to provide a **10% quota for the Maratha community in education and government jobs.**

Key points:
- The Bill, passed by the Legislative Assembly and Legislative Council, is similar to the Socially and **Educationally Backward Classes Act, 2018** introduced by the then-government led by Devendra Fadnavis, which was struck down by the top court in May 2021.
- This is the third time in the last decade that the State has introduced legislation for a Maratha quota.
- While seeking to fulfill demands of poorer Marathas , this Bill does not disturb the existing OBC quota. It will push total reservations in Maharashtra to **62%, above the Supreme Court-mandated limit of 50%**.
- As things stand, reservation in the state is 52%. The break down: **13% for Scheduled Castes, 7% for Scheduled Tribes, 19% for OBCs, 2% for Special Backward Classes, 3% for Vimukta Jati, 2.5% for Nomadic Tribe (B), 3.5% for Nomadic Tribe (C) Dhangar, and 2% for Nomadic Tribe (D) Vanjari.**
- With the proposed Maratha reservation, the state's overall quota percentage goes up to **62%, just below Tamil Nadu, which stands at 69%.** "Maharashtra is not the only state to have above 60% reservation. Haryana and Rajasthan have 64%. Twenty-two states have more than 50%,"

Shehbaz to be Pakistan PM, Zardari to be President

- The **Pakistan People's Party (PPP) and Pakistan Muslim League-Nawaz (PML-N)** reached an agreement to establish a new coalition government in Pakistan after days of negotiations.
- PPP chairman Bilawal **Bhutto-Zardari announced that PML-N President Shehbaz Sharif is set to assume the role of Prime Minister** again while **PPP co-chairman Asif Zardari is slated to become the country's next President.**

White Paper in Parliament

Recently, the government presented a **White Paper on the Indian economy in Parliament.**

Background:
- The Modi government, during the Union Interim Budget on February 1, 2024, announced its intention to release a **'White Paper.'**
- This document aims to compare the economic performances of the **Congress-led UPA government over ten years with that of the BJP-led NDA government.**

Definition of White Paper:
- A White Paper is a **governmental publication designed to showcase new policies and achievements,** seeking support and public feedback.
- Typically, it's bound in a white cover. This White Paper is **expected to analyze the Indian government's economic policies, including fiscal, monetary, trade, and exchange rate policies, over the years.**

Key Claims:
- **UPA mismanaged a once robust economy over a decade.**
- Neglected economic reforms caused macroeconomic instability.
- **Post-2008,** high economic growth led to inflation and **fiscal deficit.**
- Unproductive borrowing led to decreased capital expenditure and neglected infrastructure.
- Capital expenditure as a percent of total expenditure (excluding interest payments) **halved from 31% in FY04 to 16% in FY14** (this ratio stands at 28% in the current year).
- **Health expenditure minimally improved during UPA's tenure.**
- Policy paralysis caused defense preparedness shortages **by 2012.**
- UPA's tenure was marred by scandals and policy missteps.

Legislative Changes in Jammu and Kashmir

- The Rajya Sabha recently passed bills to include various communities into the **Scheduled Tribes (ST) and Scheduled Castes (SC) lists in Jammu and Kashmir.**
- Among the amendments, the **Pahari ethnic group** was added to the **ST list,** addressing the ongoing protests by the **Gujjar-Bakarwal community.**
- Additionally, the Bills incorporated the Paddari Tribe, Gadda Brahmin, and Koli communities into the **ST list.**
- The Valmiki community, along with its synonyms, was included in the **SC list.**

Cabinet Approval for Multi-Tracking Projects

- The Cabinet Committee on Economic Affairs, chaired by Prime Minister Shri Narendra Modi, has approved **six multi-tracking projects across Indian Railways.**
- These projects aim to **enhance travel convenience, reduce logistics costs, decrease oil imports, and lower CO2 emissions.**

Key points:
- During the construction phase, the projects are anticipated to generate approximately **three crore man-days of direct employment.**
- The financial outlay for these projects is estimated to be around **Rs 12,343 crore**, with

an expected completion timeline by **2029-30.**
- The projects span across 18 districts in six states—**Rajasthan, Assam, Telangana, Gujarat, Andhra Pradesh, and Nagaland—expanding the Indian Railways network by 1020 kilometers.**
- The projects are part of the **PM-Gati Shakti National Master Plan** for multimodal connectivity, emphasizing integrated planning to facilitate seamless movement of people, goods, and services.

Maryam Nawaz sworn in as Chief Minister
- Maryam Nawaz has been sworn in as the Chief Minister of Punjab.
- This makes her the **first woman to hold this position in Pakistan's eastern Punjab province**.
- She won after receiving 220 votes in the 371-member Punjab Assembly.

About:
- Maryam Nawaz, the **daughter of former Pakistan Prime Minister Nawaz Sharif,** has become the fourth member of her family to hold the position of Punjab Chief Minister.
- Previously, this role was held by her father, his brother Shehbaz, and Shehbaz's son Hamza.
- Maryam became more involved in politics and assumed a significant role in the party after **Nawaz Sharif was disqualified from the prime minister's post in 2017.**

Geography & Places in News

Dusted Apollo

Context:
- The Dusted Apollo, a rare high-altitude butterfly, has been sighted and photographed in **Himachal Pradesh's Chamba district.**
- Previously undocumented in Himachal Pradesh, this species inhabits altitudes ranging from **3,500 to 4,800 meters in the inner Himalayas.**

Key points:
- The Dusted Apollo bears a strong resemblance to the **Ladakh Banded Apollo.**
- Apollo butterflies face threats from poaching due to their commercial significance, highlighting the urgent need for conservation efforts to protect endangered species.

Chabahar port
- India has encouraged Central Asian nations to utilize the **Chabahar port in Iran** to boost connectivity and trade with India and other global partners.

Key points:

- During the **sixth Regional Dialogue of Secretaries of Security Councils/National Security Advisers on Afghanistan** in Bishkek, India's Deputy National Security Adviser, Vikram Misri, emphasized the need for an **"inclusive and representative"** government in Afghanistan, advocating for a consensus-based approach towards the **Taliban-led administration.**
- In discussions with representatives from **Iran, Russia, Kyrgyzstan, Kazakhstan, and Turkmenistan, Misri** extended invitations for Central Asian neighbors to leverage the Chabahar port and the Shahid Beheshti terminal for maritime trade with India and beyond.

Chabahar port

- Chabahar Port, situated in **southeastern Iran on the Gulf of Oman,** is Iran's sole oceanic port, comprising **two separate ports named Shahid Kalantari and Shahid Beheshti.**
- It is approximately **170 kilometers west of Gwadar, a Pakistani port**.
- The port is strategically located on the **Makran coast of Sistan and Baluchistan Province**, at the mouth of the Strait of Hormuz, providing Iran with direct access to the **Indian Ocean.**
- Due to its proximity to Afghanistan, Turkmenistan, Uzbekistan, and other Central Asian countries, it is often referred to as the **"Golden Gate"** to these landlocked nations.
- Chabahar is also **700 kilometers away from Zahedan, the capital of the Sistan and Baluchistan province.**

Sudarshan Setu

- Prime Minister Narendra Modi inaugurated the **Sudarshan Setu, India's longest cable-stayed bridge,** linking mainland Gujarat with Bet Dwarka island off the Okha coast in Devbhumi Dwarka.
- Also known as **Signature Bridge, it is Gujarat's first sea link.**
- **Total length**: 4,772m, including a 900-m-long cable-stayed section.
- **Cost:** Rs 978 crore, funded by the Union government.

History & Culture

Martand Sun temple

Context:
Recently, members of a lesser-known Hindutva group forcibly entered the **Archaeological Survey of India (ASI)-protected Martand Sun Temple**, raising concerns about the temple's security.

About:
Historical Significance
- Built in the **8th century by King Lalitaditya Muktapida of the Karkota Dynasty**, the Martand Sun Temple serves as a testament to the ruler's political ambitions and desire to showcase his authority through grand construction.
- Reflecting **Kashmiri architecture,** the temple seamlessly integrates Greek, Roman, Iranian, and Indian styles, creating a masterpiece celebrated for its grandeur and artistic excellence.
- Situated atop a plateau, the temple offers breathtaking views, designed as a **colonnaded mandapa encircled by a courtyard.**
- The central shrine dedicated to the **Sun God**, originally surrounded by **84 smaller shrines**, features intricately carved columns illustrating scenes from Hindu mythology, including deities, celestial beings, and mythological figures.
- Noteworthy is the **influence of Greek, Gandharan, Gupta, and Chinese architectural** styles, creating a unique fusion that reflects the cultural assimilation of the region

Chhatrapati Shivaji Maharaj
- Prime Minister Narendra Modi paid his tributes to Chhatrapati Shivaji Maharaj on his **394th birth anniversary who was born on 19th Feb in 1630.**

About:
- Shivaji Bhonsale I, also known as Chhatrapati Shivaji, was an Indian ruler and a member of the **Bhonsle Maratha clan.**
- He established the Maratha Empire by carving out a region from the declining **Adilshahi sultanate of Bijapur.**
- In 1674, he was formally crowned as the Chhatrapati of his realm at **Raigad Fort.**

- He established the **Council of Eight Ministers, or Ashta Pradhan Mandal,** which included positions like the Peshwa (Prime Minister) for general administration, the Amatya for finance, and the Summant or Dabir for foreign affairs.

Recent contributions by GoI:
- The Prime Minister, Shri Narendra Modi unveiled the statue of Chhatrapati Shivaji Maharaj at Rajkot Fort, Sindhudurg, Maharashtra.
- The Maharashtra government has designated February 19 as a holiday to commemorate Chhatrapati Shivaji Maharaj's birth, known as **Shivaji Jayanti.**
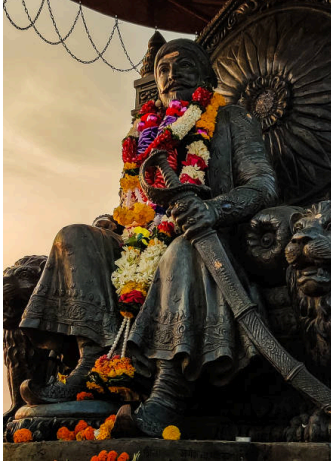
Replica of Mohammad Quli Qutb Shah's tomb

- Recently, a digital replica of **Mohammad Quli Qutb Shah's tomb** was revealed by the **reality technology company Hexagon in Hyderabad.**

Background:
- Mohammad Quli Qutb Shah was the **fifth sultan of the Qutb Shahi dynasty of Golkonda,** known for founding the city of **Hyderabad** and constructing its iconic landmark, the **Charminar.**
- His reign is celebrated for its administrative prowess and cultural achievements.
- He was also a prolific Urdu poet, composing verses in the Persian diwan style.
- His rule coincided with the times of **Akbar the Great, Jagat Guru, and Ibrahim Adil Shah.**

About:
- Qutb Shah's tomb, located in **Ibrahim Bagh, Hyderabad,** is an architectural marvel blending Persian, Hindu, and Pathani styles.
- **The digital twin technology used to create this replica offers a digital representation of a physical object, person, or process, providing insights for better decision-making.**

Baltic Sea

A Stone Age wall discovered beneath the Baltic Sea in Germany is believed to be Europe's oldest megastructure built by humans.

About:
- The Baltic Sea is a **semi-enclosed inland sea in Northern Europe,** extending from **southern Denmark almost to the Arctic Circle.**
- It has an approximately **8,000 km coastline shared by countries such as Sweden, Poland, and Russia,** covering an area of about 377,000 sq.km.
- With major gulfs like the **Gulf of Bothnia** and the **Gulf of Finland,** it's known for its low water salinity due to **inflowing fresh water and shallowness.**
- The sea is fed by **over 250 rivers and stream**s, with the **Neva being the largest.**
- It boasts more than 20 islands and archipelagos, with Gotland as the largest.

Relics of Kapilavastu

- The **National Museum in Delhi** is home to 20 relics of Lord Buddha, categorized as **'AA' (rare) artifacts**, and are considered significant cultural treasures.
- **Four of these relics are currently being transported to Thailand** for a month-long exhibition, following a special request from the Thai Government.

Significance of the Relics
- These relics hold immense religious and cultural importance for Buddhists worldwide.
- They are **revered as sacred objects** and are often enshrined in **pagodas and stupas for veneration.**

About:

- The Kapilvastu Relics were excavated from **Piprahwa, located in the Siddharthnagar District of Uttar Pradesh,** once part of the ancient city of Kapilavastu.
- Kapilvastu, also known as Taulihawa, is a municipality and administrative center located in Kapilvastu District, Lumbini Province, southern Nepal.
- It lies approximately 25 kilometers southwest of Lumbini, the UNESCO World Heritage Site and birthplace of Gautama Buddha.

Hastsal Minar: A Forgotten Gem in West Delhi

- The Mini Qutub Minar, a Grade A listed protected heritage monument, serves as a reminder of Shah Jahan's presence in Hastsal and is in urgent need of conservation to preserve its historical significance.

History
- Constructed in **1650 by Mughal emperor Shah Jahan** near his hunting lodge in Hasthal.
- Originally a **5-storeyed tower with a domed Chhatri pavilion for Shah Jahan's entertainment.**
- Legends suggest a tunnel existed from the tower to the royal hunting lodge.
- Upper two storeys and the domed pavilion collapsed in the **18th century.**
- Abandoned and forgotten, surrounded by urbanization at present.

Architecture
- Resembles **Qutub Minar in Delhi,** built with Lakhori bricks and red sandstone
- Originally had five storeys with a narrowing diameter, accessed by a narrow staircase
- Each storey surrounded by an **octagonal ring with overhanging eves (Chhajja) like the Qutub Minar**

Threats
- Endangered due to decades of neglect and lack of conservation
- Threatened by natural elements and encroachment of new constructions in Hastsal
- Completely surrounded by haphazardly built houses and buildings, with new constructions encroaching upon the lower platform
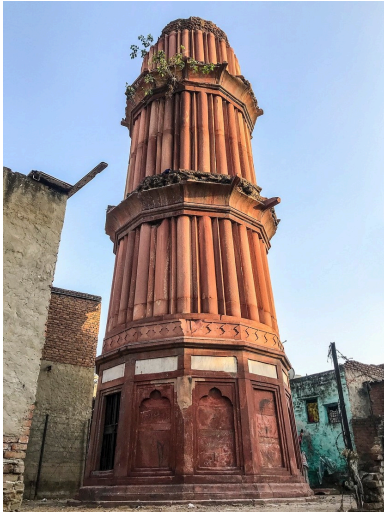
Temple Discoveries in Telangana: Unveiling the Chalukya Kingdom's Reach

- Despite the nearly 500 km distance between Mudimanikyam in Telangana and Badami in Karnataka, recent archaeological findings reveal that **Mudimanikyam, a Village in Nalgonda District, was once under the rule of the Badami Chalukyas.**

Key points:
- Archaeologists unearthed **two temples on the river bank and five within the village.**
- Additionally, they found an **inscription** dating back to the reign of the Badami Chalukyas, who ruled from **543 AD to 750 AD.**
- Temples reflect the **cosmopolitan nature of the Deccan region**, where multiple religions coexisted.
- Alongside the Brahmanical religion, there was room for **Buddhism and Jainism**, demonstrating the religious diversity of the time.
- Even after the fall of the kingdom, which once governed present-day **Karnataka and Andhra Pradesh,** the region maintained a vibrant community of devotees worshiping **Hindu deities Vishnu and Shiva.**
- The farthest known boundaries of the Chalukya Badami kingdom were previously identified as the **Jogulamba temples at Alampur and the submerged Yeleswaram sites**.
- These new discoveries extend the historical reach of the kingdom.

Chalukyas:
Period
- The Chalukya dynasty was a Hindu dynasty that ruled large parts of southern and central India between the **6th and the 12th centuries.**

They ruled as three related yet individual dynasties:

Badami Chalukyas: Ruled from Vatapi (modern Badami) in Karnataka, from the middle of the 6th century.

Eastern Chalukyas: Became an independent kingdom in the eastern Deccan after the death of Pulakeshin II. They ruled from Vengi until about the 11th century.

Western Chalukya Empire: Descendants of the Badami Chalukyas, they emerged in the late 10th century and ruled from Kalyani (modern-day Basavakalyan) until the end of the 12th century.

Architecture:

Vesara Style: The Chalukyas invented the Vesara style while constructing structural temples. This style is a hybrid of **Nagara and Dravida styles.**

Distinctive Features:
- Chalukya architecture has both c**ave temple design and structured temple design.**
- Chalukya architects used the stellate plan or northern stepped diamond plan for architectural design.

Scheme

Budget Allocation for MGNREGS (Financial Year 2024-25)
- **₹86,000** crore allocated for MGNREGS in the financial year **2024-25.**
- Represents a **₹26,000 crore** increase compared to the **2023-24** Budget estimates.
- Despite the increase, the net gain for the rural employment scheme may be **zero or negative.**

Insufficient Allocation:
- To meet the employment needs, activists argue that ₹3 lakh crore is essential.
- The allocated budget of ₹86,000 crore is significantly short, considering outstanding dues and additional work requirements.
- Raises concerns about jeopardizing the guaranteed right to work under MGNREGS and constitutes a violation of this fundamental entitlement.

Pradhan Mantri Suryoday Yojana
Context:
- The government plans to promote **household rooftop solar systems (h-RTS)** through the Pradhan Mantri Suryoday Yojana.
- The focus is on households consuming less than 300 units of electricity monthly.
- The scheme aims to provide up to **300 units of free electricity to one crore families.**
- Estimated cost of the scheme is at least ₹1 lakh crore.
- The Union government is likely to bear the entire cost of setting up rooftop solar systems.
- Finance Minister Nirmala Sitharaman mentioned the potential benefits of **₹15,000 to ₹18,000** annually for beneficiary households.
- India currently has **6.7 lakh households** with rooftop solar systems, and the scheme aims for an exponential expansion to reach one crore households.

Electoral Bonds Scheme
- Recently, the **Supreme Court directed the SB**I to stop issuing these bonds immediately.
- Electoral Bonds (EBs) are **interest-free bearer bonds or money instruments** available for purchase by companies and individuals in India from authorized branches of the **State Bank of India (SBI).**

About:
- EBs can be bought in **denominations of Rs 1,000, Rs 10,000, Rs 1 lakh, Rs 10 lakh, and Rs 1 crore**, similar to banknotes, and are payable to the bearer on demand without interest.

- They are purchased through a KYC-compliant account and can be used for making donations to political parties.
- EBs have a short lifespan of **15 days for making donations.**
- The donor's name and information are not mentioned on the bond, making them anonymous.
- There is no limit on the number of EBs a person or company can purchase.
- Donations made through EBs are tax-exempt under **Section 80 GG and Section 80 GGB of the Income Tax Act.**
- Only political parties registered under **Section 29A of the Representation of the People Act, 1951,** and which secured not less than **1% of votes in the last general election, are eligible to receive EBs.**
- Political parties must encash the bonds within a specified period through a designated bank account and disclose the amount to the Election Commission.

Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana

- The Union Cabinet has greenlit the implementation of the **Pradhan Mantri Matsya Kisan Samridhi Sah-Yojana,** a subsidiary scheme falling under the broader **Pradhan Mantri Matsya Sampada Yojana.**
- This scheme primarily targets **micro and small enterprises within the fisheries sector.**

Key points:
- The scheme is anticipated to witness an investment of **₹6,000 crore** over the span of the next four years (FY 2023-24 to FY 2026-27) in all States/Union Territories.
- Cabinet also sanctioned an extension of the Fisheries and Aquaculture Infrastructure Development Fund until **2026.**

Objectives of PM-MKSSY
- **Incremental formalization** of the **unorganized fisheries sector** by encouraging self-registration of fishers, fish farmers, and supportive workers via a **National Fisheries Sector Digital Platform.**
- Providing **one-time incentives** to beneficiaries for acquiring aquaculture insurance.
- Encouraging the growth of fisheries and aquaculture microenterprises through performance grants.
- Facilitating access to **institutional financing** for micro and small enterprises within the

fisheries sector.
- Motivating **micro and small enterprises** with performance grants to adopt and expand fish and fishery product safety and quality assurance systems.

Swadesh Darshan Scheme

- The Ministry of Tourism has added the **UNESCO World Heritage sites of Ajanta and Ellora caves** in Chhatrapati Sambhajinagar to the **Swadesh Darshan Scheme II.**
- This initiative aims to foster sustainable and responsible tourism destinations in India.

About:
- The **Swadesh Darshan Scheme**, launched in **2015 by the Ministry of Tourism,** Government of India, focuses on developing sustainable and responsible tourism destinations nationwide.
- It operates on **100% central funding,** assisting states, Union Territories, and Central Agencies in tourism infrastructure development.

Swadesh Darshan 2.0
- SD2.0 seeks to attract **private sector investments and foster Public-Private Partnerships (PPP) in tourism**, focusing on infrastructure operation and maintenance.
- **Themes:** Major tourism themes identified under SD2.0 include Culture and Heritage, Adventure Tourism, Eco-Tourism, Wellness Tourism, MICE Tourism, Rural Tourism, Beach Tourism, and Cruises – Ocean & Inland.

Economy & Infrastructure

Core sector output growth slowed to a 14-month low in December

Context:
- Output growth of India's eight core sectors dropped to a **14-month low of 3.8% in December.**
- This is a significant decline compared to the 8.3% pace observed a year earlier and the revised growth of **7.9% in November 2023.**

Key Points:
- **Electricity generation**, with a 20% weightage in the Index of Core Industries (ICI), reached an eight-month low of 0.6% in December.
- **Crude oil** output contracted for the second consecutive month, shrinking by 1%, marking the sharpest decline since June 2023.
- **Coal production** grew by 10.6%, the slowest year-on-year uptick in six months, but output was at its highest level since April 2023.

- **Cement** output rebounded from a 4% contraction in November, expanding by 1.3% in December

About:
- The **Office of Economic Adviser, Department for Promotion of Industry and Internal Trade releases Index of Eight Core Industries (ICI).**
- ICI measures combined and individual performance of production in selected eight core industries viz. Coal, Crude Oil, Natural Gas, Refinery Products, Fertilizers, Steel, Cement and Electricity.
- **The Eight Core Industries comprise 40.27%** of the weight of items included in the Index of Industrial Production (IIP).

Micro Credentials - In Higher Education

Context:
- **Higher education institutes (HEIs)** in India are urged to actively **address the employability gap** among students by connecting them with future career opportunities.
- The disparity between knowledge acquired in HEIs and the skills needed for employment highlights the need for innovative solutions.

Understanding Micro-Credentials:
- Micro-credentials are **short-duration learning activities** with validated outcomes, offered online, physically, or in hybrid modes.
- Unlike traditional degrees, which require several years of study, **micro-credentials provide a 'just-in-time' approach** to acquiring modern skills.
- They cater to lifelong learners, including working professionals unable to attend formal degree programs.
- **Micro-credentials,** being portable and stackable on digital platforms like the **Academic Bank of Credits (ABC),** offer students the flexibility to integrate diverse skills into their education.

Way forward:
- **Indian HEIs(Higher Educational Institutions)** must embrace the role of agents of transformation by incorporating micro-credentials into their strategic goals.
- **Regulators and HEIs** should collaborate to harmonize micro-credentials with existing academic programs, establishing clear validation metrics.

Tax-to-GDP Ratio Set to Reach New High in FY25

Context:
- Revenue Secretary, Sanjay Malhotra, forecasts **India's tax-to-GDP ratio to hit a record 11.7% in 2024-25**, with direct taxes leading the increase.
- Simplification and rationalization of the tax regime are ongoing to minimize disputes and enforcement issues.

Key findings:
- This is primarily because of direct taxes increasing from **6.1% of GDP in 2022-23 to 6.6% this year and 6.7% next year.**
- As the economy grows and per capita income increases,the tax-to-GDP also increases.
- Malhotra anticipates a surge in direct tax collection, driven by more taxpayers opting for

the new tax regime.
● The new regime offers a higher tax-free income threshold but disallows deductions.

Delimitation Exercise
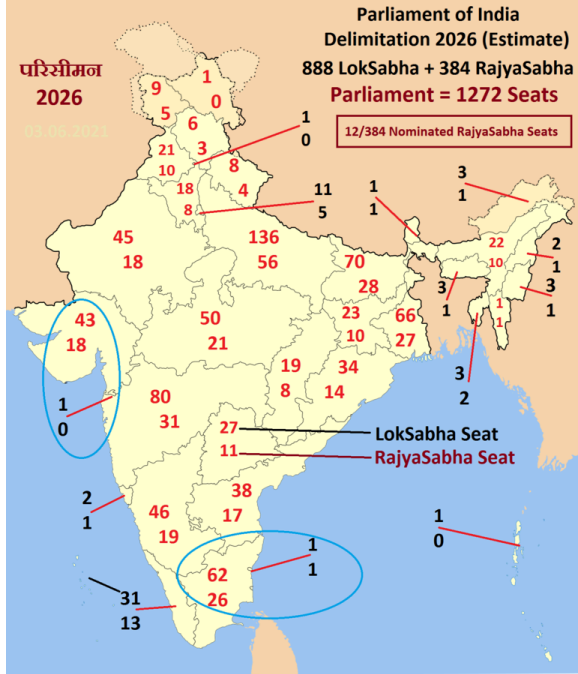
Context:
● Delimitation entails **fixing the number of seats and boundaries of constituencies,** including reserved seats for SC and ST, as per **Article 82 and 170 of the Constitution**.
● It's carried out by the **Delimitation Commission after each Census.**

Background:
● Delimitation has been frozen as per the **1971 Census** in order to encourage population control measures.
● This was done through the **42nd Amendment Act till the year 2000 and was extended by the 84th Amendment Act till 2026.**

Issues:
● The uneven population growth among states poses challenges.
● Discussions revolve around **redistributing seats among states or increasing the total number of seats, both potentially disadvantageous to certain regions.**

International Practices
● **United States:** Seats in the House of Representatives are redistributed after each Census, aiming for equal proportion representation among states.

● **European Union:** The EU Parliament allocates seats based on a principle of degressive proportionality, where population size influences the number of seats.
(Mentioned figure is just an estimate)

investment in Rail infrastructure

- ₹2.55 lakh crore allocated for 2024-25, reflecting a 5.8% increase from the previous year's ₹2.41 lakh crore.

Economic Corridor Programs

- Union Finance Minister Nirmala Sitharaman said that the Centre will implement **three major economic corridor programmes — energy, mineral, and cement corridor,** also being referred to as Energy Economic Corridor; port connectivity corridor aka Rail Sagar; and high-traffic density corridors, aka Amrit Chaturbhuj.

Key Points:

- **The National High-Speed Rail Corridor's bullet train project** receives a substantial increase in allocation, rising from ₹19,592 crore to ₹25,000 crore.
- Budget allocation for investment in public sector units and joint ventures decreased from ₹34,353 crore in 2023-24 to ₹31,107 crore in 2024-25.
- Overhauling 40,000 coaches over the next five years for an improved passenger experience, costing ₹15,200 crore.

'India to seek $26 bn private investment in nuclear power sector'

- India will invite private companies to invest about **$26 billion in its nuclear energy sector** to increase the amount of electricity from sources that do not produce carbon dioxide emissions.

Key points:

- This is the first time that New Delhi is pursuing private investment in nuclear power, a non-carbon-emitting energy source that contributes less than **2% of India's total electricity generation.**
- The funding would help India achieve its target of having 50% of its installed electric generation capacity use non-fossil fuels by 2030, up from 42% now.
- The government is in talks with at least five private firms, including **Reliance Industries, Tata Power, Adani Power, and Vedanta Ltd.,** to invest around ₹440 billion ($5.3 billion) each.
- With the investment, the government hopes to build **11,000 megawatts (MW) of new nuclear power generation capacity by 2040,** said the officials, adding that the plan is still being finalized.
- The state-run **Nuclear Power Corporation of India Ltd. (NPCIL)** owns and operates the country's fleet of nuclear power plants, with a capacity of 7,500 MW, and has committed investments for another 1,300 MW.

Nvidia dethrones Tesla as Wall Street's most traded stock

- Chipmaker **Nvidia is replacing Tesla as Wall Street's most traded stock,** adding to its prominence after becoming the **third-most valuable U.S. company** and showing more evidence of how central AI-related bets have become to investors.

Key points:

- **About $30 billion Nvidia shares changed hands daily on average over the past 30 sessions,** pulling ahead of Elon Musk's electric car maker, which averaged **$22 billion per day over the same period.**
- Tesla since 2020 has dominated daily U.S. stock trading, as per LSEG data, with turnover — a stock's share price multiplied by the number of shares exchanged — peaking above $35 billion several times in recent years.
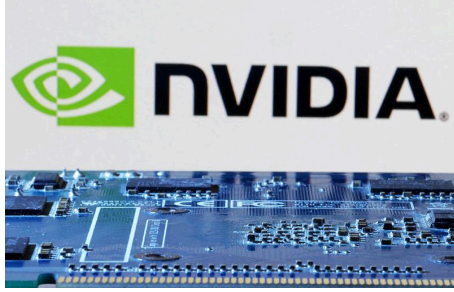
Lab-grown diamonds put natural gems industry under huge pressure

- Man Made gems are reshaping the **$89 bn** global diamond jewelry market, especially in **Surat where 90%** of the world's diamonds are cut and polished; lab-grown diamond exports from India tripled in value between 2019-2022 while exports rose **25% between April and October 2023.**

Key points:
- The glittering diamonds sparkle the same but there are key differences: **mined natural gems are more than a billion years old, while laboratory-made rocks are new and cost less than half the price.**
- "It's the same product, it's the **same chemical, the same optical properties."**
- The lab-grown industry has had its problems, too. Supply has skyrocketed and prices have dropped drastically, with wholesale prices down by 58% in 2023 alone.

Morodharo

- Archaeologists recently uncovered a **fortified Harappan settlement called Morodharo in the Kutch District, Gujarat.**
- Dating back to **2600-1900 BCE**, it features a **102m by 58m** fortification wall averaging **3.3m in thickness.**
- The settlement includes a **10x10m platform and a well.**
- Burial cairns and Harappan pottery were found, resembling items from **Dholavira.**

Key features of IVC:

- The Harappan civilization was the **first urban civilization in South Asia,** covering approximately **800,000 sq km.**
- Major Harappan cities included **Harappa, Mohenjo-Daro, Dholavira, Lothal, Surkotada, Kalibangan, Banawali, and Rakhigarhi.**
- The civilization's town planning featured a rectangular grid pattern, planned streets and alleyways, fortifications, and division into an upraised citadel and lower town.
- Harappans extensively used **burnt bricks** and had well-developed residential areas with multiple-story houses, courtyards, and sophisticated drainage systems.

Himachal's GDP to see growth at 7.1%

- Despite facing severe challenges from nature, **Himachal Pradesh is projected to experience a GDP growth of 7.1%.**
- The State's economy has shown resilience despite the **heavy monsoon rains that caused significant damage in July 2023**.
- In the financial year **2023-24,** the GDP growth is expected to increase from **6.9% in the previous year to 7.1%.**

Key points:
- The Economic survey projects that the **State's real Gross Domestic Product (GDP) at constant prices** will increase by over ₹9,428 crore in the current financial year compared to the previous year.
- The survey highlights Himachal Pradesh's substantial **hydroelectric potential,** with the State possessing about **25% of the national potential**.
- It is estimated that about **24,000 MW of hydroelectric power can be generated** from the construction on the five perennial river basins in the State.
- Currently, **11,209 MW of the total hydroelectric potential have been harnessed.**

DAC Clears ₹84,560 Crore Deals for Torpedoes, Refueller Aircraft, and More

- **DAC(Defence Acquisition council)** has approved new deals including torpedoes and refueller aircraft, among others, worth ₹84,560 crore.

Key points:
- These deals aim to enhance the attacking capabilities of **submarines, improve reconnaissance, and strengthen maritime capabilities.**
- The approval includes the **procurement of heavy weight torpedoes for Navy's**

submarines, flight refueller aircraft for the Air Force, and other equipment like anti-tank mines, radars, and software-defined radios.

- Additionally, amendments to the **Defence Acquisition Procedure (DAP) 2020** were approved, focusing on benchmarking, cost computation, payment schedule, and procurement quantity.

A recent report on local fintech players

- The recent report on local fintech players, presented to **Parliament by the Standing Committee on Communications and Information Technology,** highlights concerns about the dominance of foreign-owned fintech apps in India. It recommends promoting local players.

Key findings:
- Unified Payments Interface (UPI) data reveals its substantial contribution to digital payments in the fiscal year 2022-23.
- While UPI accounted for 73.5% of total digital payments by volume, its share by value stood at only 6.67% during the same period.
- The dominance of foreign-owned fintech entities, exemplified by P**honePe and Google Pay, is notable in the Indian fintech landscape**.
- PhonePe holds the highest market share in terms of transaction volume, closely followed by Google Pay.
- **In contrast, NPCI's BHIM UPI trails behind significantly in transaction volume.**
- Local fintech players have an inherent understanding of the local market, while foreign entities excel in technology and global connectivity.
- A balanced presence of both local and foreign players is deemed crucial for the holistic development of India's fintech ecosystem.

Pancheshwar project
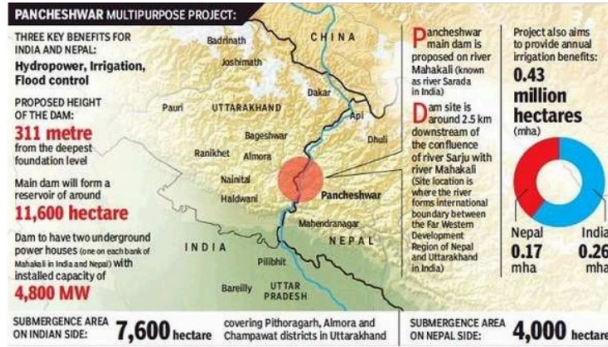
- More than a month after **India and Nepal signed an agreement on long-term power sharing**, the two sides have not managed to make any forward movement on the stalled negotiations over the landmark **Pancheshwar Multipurpose Project (PMP).**

About:
- The PMP is aimed at generating around **6,480 MW energy (to be divided equally between two sides),** along with water for irrigation of **1,30,000 hectares of land in Nepal and 2,40,000 hectares of Indian territory, respectively.**
- The project is stalled because the Indian and the Nepali sides are unable to come to a consensus on sharing of benefits.
- While electricity is divided equally, India gets the lion's share of irrigation and flood control benefits.
- On the other hand, Kathmandu feels water is 'white gold' and India should pay Nepal for it.

Details:
- The **Sharda River, also called Kali River and Mahakali River, originates at Kalapani** in the Himalayas at an elevation of 3,600 m (11,800 ft) in the Pithoragarh district in Uttarakhand.
- It flows along **Nepal's western border with India and has a basin area of 14,871 km2.**
- The Pancheshwar Dam, a joint venture of India and Nepal for irrigation and hydro-electric power generation was proposed on this river.

Number of ultra-rich in India increased 6%
- The number of Ultra-high Net Worth Individuals (UHNWIs) in India **increased 6% annually to 13,263 last year on rising prosperity.**
- **UHNWIs are defined as individuals having a net worth of $30 million and more.**

Key points:
- Real estate consultant Knight Frank India released **'The Wealth Report 2024'.**
- The report highlights that the number of UHNWIs in India grew from **12,495 individuals in 2022 to 13,263 in 2023.**
- The number of affluents in India is expected to grow further to reach nearly 20,000 by 2028.

- **This represents a remarkable surge in India's UHNWI population, catapulting by 50.1% within the next five years.**
- 90% of Indian UHNWIs are expecting to witness an increase in their wealth during 2024.

Science & Technology

Ergosphere: making a black hole work
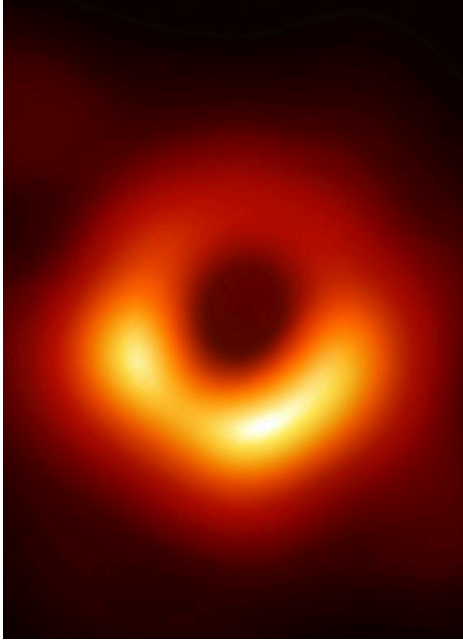
Context:
- Rotating black holes, also known as **Kerr black holes,** originate from massive stars that exhaust their fuel, leading to a **supernova explosion.**
- The remaining **core** collapses under its own gravity, **forming a black hole.**

Nature of Black Hole Center:
- The **core of a black hole** contains a gravitational singularity, where the principles of general relativity break down.
- The immense gravitational pull of a black hole originates from this singularity.

Event Horizon and Singularity:
- The event horizon, **a spherical boundary** around the singularity, prevents anything from escaping once inside, unless it surpasses the speed of light—an impossibility.
- The gravitational pull of the black hole is experienced beyond this boundary.

Ergosphere:
- Beyond the **event horizon,** rotating black holes possess an **ergosphere, a larger sphere allowing objects to enter and exit if moving rapidly,** but still below the speed of light.
- The term 'ergosphere' is derived from the Greek word **'ergon,' meaning 'work.'**
- It is named so because **matter and energy can be extracted from the ergosphere, unlike beyond the event horizon**

C-CARES Web Portal

Context:
Union Minister of Coal, Mines, and Parliamentary Affairs, Shri Pralhad Joshi, recently inaugurated the C-CARES web portal developed by C-DAC for CMPFO.

Key points:
- C-CARES, designed by the **Centre for Development of Advanced Computing (C-DAC)**, addresses the digitalization challenges of CMPFO, aiming to modernize its record-keeping and operational processes.
- Established in **1948** under the Ministry of Coal, **CMPFO is an autonomous organization** managing Provident Fund and Pension schemes for coal sector workers.
- Currently, it serves 3.3 lakh Provident Fund subscribers and 6.1 lakh pensioners in the coal sector.

Boosting Research and Innovation in India

Context:
- Finance Minister Nirmala Sitharaman's interim Budget speech announces a **corpus of ₹1 lakh crore.**
- The funds will be available at minimal or nil interest rates.
- Aimed at encouraging private sector investment in research and development in sunrise sectors.

National Research Foundation Bill
- DST allocates ₹2,000 crore in 2024-25 towards the National Research Foundation.

About:
- The bill aims to establish the **National Research Foundation (NRF)** to seed, grow, and promote Research and Development (R&D) across India's educational and research institutions.
- The bill aims to establish the National Research Foundation (NRF) to **seed, grow, and promote Research and Development (R&D)** across India's educational and research institutions.
-

National Quantum Mission
- The National Quantum Mission, a much talked about scheme of the DST, has for the first time been provisioned **₹2,819 crore.**

About:
- The Union Cabinet, chaired by Hon'ble Prime Minister Shri Narendra Modi, approved the **National Quantum Mission (NQM)** on **19th April 2023.**
- The Mission objectives include developing intermediate-scale quantum computers with 50-1000 physical qubits in 8 years in various platforms like superconducting and photonic technology

GSLV-F14/INSAT-3DS

- The Ministry of Earth Sciences (MoES) fully funded the **satellite INSAT-3DS,** which was successfully launched by the **Indian Space Research Organisation (ISRO) from the Satish Dhawan Space Centre in Sriharikota, Andhra Pradesh**, using the GSLV-F14 launch vehicle.

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Aim and objectives:

- INSAT-3DS aims to enhance I**ndia's meteorological services, c**omplementing the existing **INSAT-3D and INSAT-3DR satellites.**
- It will improve **monitoring of the Earth's surface, atmosphere, oceans, and environment,** enhancing data collection, dissemination, and satellite-aided search and rescue services.
- This initiative will **advance weather, climate, and ocean-related observations** and services in India, contributing to disaster mitigation and preparedness.

Specification:

- Based on ISRO's I-2k bus platform, **INSAT-3DS has a lift-off mass of 2,275 kilograms**.
- It is equipped with state-of-the-art payloads, including an imager payload with **a six-channel optical radiometer for Earth imaging,** a 19-channel sounder payload for atmospheric information, and communication payloads such as a data relay transponder and a **satellite-aided search and rescue transponder.**
- Indian industries have played a significant role in the development of INSAT-3DS.

YUVIKA

- Indian Space Research Organisation (ISRO) has initiated a special program named **"Young Scientist Programme"** or **"YUva VIgyani KAryakram" (YUVIKA)** tailored for school children.
- The primary aim of this endeavor is to **provide fundamental knowledge in Space Science, Technology, and Applications** to young learners, exposing them to the latest advancements in these fields.
- ISRO has designed this program with the motto of **"Catch them young,"** acknowledging that the youth are pivotal for the future of space exploration and technology in our nation.
- YUVIKA also endeavors to inspire more students to pursue careers in **Science, Technology, Engineering, and Mathematics (STEM).**
- **Since its inception in 2019, YUVIKA has been successfully conducted in 2019, 2022, and 2023, attracting increasing participation each year.**

Global Initiative on Digital Health (GIDH)

- Dr. Mansukh Mandaviya, the Union Minister of Health and Family Welfare, addressed the public launch event of the World Health Organization's Global Initiative on Digital Health (GIDH) virtually.
- It was collectively launched as a key deliverable of India's **G20 Presidency during the Health Ministers' Meeting in Gandhinagar, Gujarat, on August 19, 2023.**

About:

GIDH: a network of networks

As a WHO Managed Network ("Network of Networks"), GIDH will address challenges such as duplication of efforts and "products-focused" digital health transformation through a focus on four foundational pillars:

- **Country Needs Tracker -** facilitating digital health investments to be informed by country priorities;
- **Country Resource Portal** – identifying traditional as well as innovative resource opportunities, and promoting transparency, while reducing the risk of duplication for enabling a standards-based prospective and retrospective analysis of resourcing gaps in digital health.
- **Transformation Toolbox** – advocating for quality-assured tools and resources that strengthen country capacity and autonomy to manage the national digital health transformation.
- **Convening and Knowledge Exchange** - promoting strengthened collaboration and knowledge exchange across global, regional, and national networks in digital health.
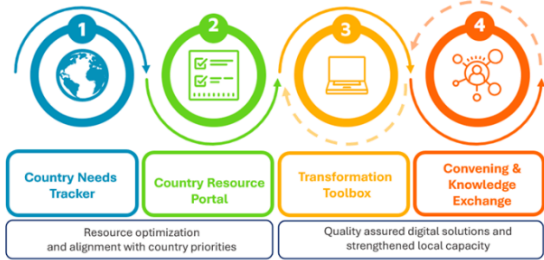
DigiReady Certification (DRC) Portal

- The DRC portal is a collaborative effort between the **Quality Council of India (QCI) and the Open Network for Digital Commerce (ONDC)**.
- It aims to evaluate and certify the digital preparedness of Micro, Small, and Medium Enterprises **(MSMEs)** for seamless integration as sellers on the ONDC platform.

Garbhini-GA2

- Researchers from BRIC-THSTI(Translational Health Science and Technology Institute) Faridabad and IIT Madras have developed an India-specific model, **Garbhini-GA2, to precisely determine the age of a foetus in pregnant women during the second and third trimesters.**

Key points:

- It is part of an interdisciplinary group for advanced research on birth outcomes – the Department of Biotechnology (DBT) India initiative (GARBH-Ini) programme.
- The model's accuracy is crucial for pregnant women's care and determining delivery dates accurately.

Gestation period:

- Gestation refers to the duration between **conception and birth, during which the baby develops inside the mother's womb.**
- Gestational age, a common term in pregnancy, indicates how far along the pregnancy

has progressed, typically measured in weeks from the first day of the woman's last menstrual cycle.

- **A normal pregnancy usually lasts between 38 to 42 weeks.**

India to have its own space station by 2035

- India is set to establish its own space station by 2035, as announced by Prime Minister Narendra Modi.
- Emphasizing India's space ambitions, Modi mentioned plans for a crewed lunar mission by 2040, with an Indian astronaut landing on the moon using an Indian spacecraft during **"Amrit Kaal."**
- PM described the Gaganyaan astronauts as not just individuals but embodiments of the nation's collective strength.

India Completes '10,000 Genome' Project

- The **Department of Biotechnology (DBT)** has announced the completion of the **'10,000 genome' project, aiming to create a reference database of whole-genome sequences from India.**
- The **United Kingdom, China, and the United States** are among the countries that have programmes to sequence at least 1,00,000 of their genomes.

Key points:

- Project was launched in **2020.**
- India's 1.3 billion population comprises over 4,600 endogamous groups, leading to **significant genetic diversity.**
- Over **20 institutions,** including the Indian Institute of Science (IISc), Bengaluru, and the Centre for Cellular and Molecular Biology, Hyderabad, are involved in the project.

Aim:

- The project aims to gain deeper insights into **India's population diversity, improve diagnostic methods and medical counseling, find genetic predispositions to disease, develop personalized drugs, improve gene therapy, and understand individual susceptibility to infectious diseases.**

Definition: A genome is the complete set of genetic material within an organism. It contains all the information needed for the development, functioning, and reproduction of that organism.

India's First Indigenous Hydrogen Fuel Cell Ferry

- Prime Minister Narendra Modi flagged off **India's first indigenously built hydrogen fuel cell ferry boat**.
- This vessel, part of the Harit Nauka initiative, was built at the **Cochin Shipyard**.
- It's a 24-metre catamaran that can carry 50 passengers in a fully air-conditioned space.
- This initiative aligns with India's commitment to **net-zero emissions, showcasing the potential of green hydrogen as a sustainable fuel source.**
- The launch of this ferry marks a significant stride in India's technological prowess and is expected to provide impetus for using hydrogen in marine applications.

- The vessel's technology is **fully home-grown and can be replicated in other parts of the country for urban mobility applications.**

Anti satellite weapons

Russia is developing a new anti-satellite weapon, which the US finds concerning.

About:
- Anti-satellite (ASAT) weapons are **designed to disable or destroy satellites already in orbit.**
- This goes **against the Outer Space Treaty**, which prohibits damaging other parties' satellites and the harmful contamination of space.
- Most ASAT weapons **are kinetic, meaning they destroy satellites by colliding with them or detonating explosives** nearby, creating debris that can remain in orbit for a long time.

Effects:
- The principal threats from a space-based nuclear weapon are **EMP(Electromagnetic pulse)** and the release of charged particles, which can affect satellites around the point of detonation, including **those of strategic allies and countries not involved in a conflict.**
- This can lead to the destruction of satellites and the creation of debris, potentially causing a **"collisional cascade"** that increases the amount of debris in orbit.
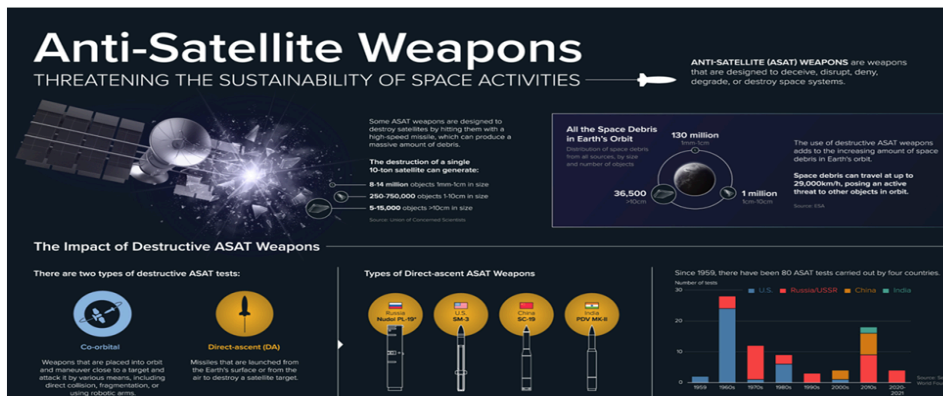
Exercise Vayushakti-2024

Context:
- The Indian Air Force will conduct **Exercise Vayu Shakti-24 on 17 February 2024** at the Pokhran Air to Ground Range near Jaisalmer.

Key points:
- The last edition of Exercise Vayu Shakti took place on **16 February 2019.**
- Vayu Shakti will demonstrate the offensive and defensive capabilities of the Indian Air Force, including both day and night operations.
- The exercise will showcase **joint operations with the Indian Army.**

Participating Aircraft:
- **Diverse Fleet:** This year, **121 aircraft** will participate, featuring indigenous aircraft like Tejas, Prachand, and Dhruv, as well as other notable aircraft such as Rafale, Mirage-2000, Sukhoi-30 MKI, Jaguar, Hawk, C-130J, Chinook, Apache, and Mi-17.
- The indigenous Surface to Air Weapon systems Akash and Samar will demonstrate their capability to track and shoot down intruding aircraft.

Agriculture & Animal Husbandry

Dzuds
- Dzuds are a specific type of **disaster unique to Mongolia.**
- They are characterized by **extreme winters with freezing temperatures, heavy snowfall, and frozen ground, making it difficult for animals to reach pasture.**

Causes of Dzuds
- Dzuds are often preceded by **dry summers** with minimal grazing, leaving livestock without enough **fat reserves for winter.**
- The **UN Economic and Social Commission for Asia and the Pacific (ESCAP)** attributes the increasing frequency and intensity of dzuds since 2015 to climate change and poor environmental governance.

The Dual "White" and "Iron" Dzud
- This winter, Mongolia is experiencing a dual dzud, characterized by two phases:
- The **"white dzud"** features deep snow cover, preventing animals from accessing grass.
- The **"iron dzud"** follows a short thaw and subsequent hard freeze, locking up pastures in ice.

Impact of Dzuds
- Dzuds freeze the soil, making it impossible for animals to access pasture.
- Livestock are left without adequate food sources, forcing them to resort to unconventional food, such as tree bark, for survival.

Greening and Restoration of Wasteland with Agroforestry(GROW) Portal

- Recently, **NITI Aayog launched the Greening and Restoration of Wasteland with Agroforestry (GROW) report and portal,** aiming to bolster efforts in environmental conservation and sustainable land use across India.

Report
- Utilizes **cutting-edge remote sensing and GIS technologies.**
- Offers comprehensive state-wise and district-wise analysis.
- Provides crucial insights for government departments and industries engaged in greening and restoration projects.

Initiative Overview
- Led by NITI Aayog.
- Employs remote sensing and GIS techniques for evaluation.
- Introduces Agroforestry Suitability Index (ASI) for national-level prioritization.
- Highlights the potential of converting wastelands into productive agroforestry zones.

Current Status
- Agroforestry covers 8.65% of India's total geographical area.
- Encompasses approximately 28.42 million hectares.

GROW Portal

- **"Greening and Restoration of Wasteland with Agroforestry (GROW)-Suitability Mapping" portal launched on 'Bhuvan'.**
- Provides universal access to state and district-level data.
- Expected to boost promotion of agroforestry initiatives by government bodies.

Environment

Eravikulam National Park

Context:
- The park undergoes closure from February 1 for the calving season of the **Nilgiri Tahr.**
- This annual closure is essential for the protection and conservation of the endangered Nilgiri Tahr during their breeding period.

Eravikulam National Park Overview:
- Established in **1978,** Eravikulam National Park is the first national park in Kerala.
- Originally created to protect the endangered **Nilgiri Tahr,** it has evolved into a diverse ecosystem supporting various flora and fauna.

- The park is named after the **Neelakurinji flower,** known for its enchanting blue bloom occurring every 12 years.

Geography:
- Located in the **Kannan Devan Hills**, part of the Western Ghats mountain range.
- No major rivers flow within the park, but numerous perennial streams intersect, eventually becoming tributaries of the Periyar and Cauvery rivers.
- **Lakkom Waterfalls**, an attractive natural feature, is situated within the park's boundaries.
- **Anamudi, South India's highest peak** at 2,695 meters, is a prominent feature of the park.

Thanthai Periyar Wildlife Sanctuary

Context:
- The Tamil Nadu government officially declares **Thanthai Periyar Wildlife Sanctuary as the 18th wildlife sanctuary in the state.**
- Designation covers 80,114.80 hectares of reserve forests in **Bargur Hills, Erode district.**

Geographical Significance:

- Functions as a critical corridor linking the **Nilgiris Biosphere Reserve with the Cauvery South Wildlife Sanctuary.**
- Occupies a strategic position in the Eastern Ghats, merging with the Western Ghats at the Nilgiris.

Role in Conservation:
- Functions as a corridor connecting the **Sathyamangalam Tiger Reserve (STR) to the Male Mahadeshwara Hills Tiger Reserve** and the Cauvery Wildlife Sanctuary.
- It plays a crucial role in maintaining a viable tiger population, identified as a tiger corridor by the National Tiger Conservation Authority.
- It is a part of the Nilgiris Elephant Reserve, home to a healthy population of large herbivores, including elephants and the Indian Gaur.

Supreme Court Upholds Broad Definition of Forest

- The Supreme Court has instructed the Central government to adhere to the **broad definition of 'forest' for now, as per a 1996 order.**
- This decision will lead to **1.97 lakh square km of undeclared forest l**and being included in the definition of 'forest'.

Key points:
- A three-judge Bench, led by Chief Justice of India D.Y. Chandrachud, issued this directive while hearing petitions challenging the 2023 amendments to the Forest (Conservation) Act, 1980.
- The Act was originally **enacted to prevent further deforestation and ecological imbalance.**

Recommendations:
- The 2023 amendments had narrowed the definition **of forest to include only declared**

forests and lands recorded as forests in government records after 1980.
- However, the court emphasized the need to follow the **dictionary meaning of 'forest', as established in the T.N. Godavarman Thirumulpad case.**
- The court clarified that 'forest' should not be limited to lands recorded as forests in government records.
- It directed States and Union Territories to compile a **consolidated record of all lands recorded as 'forest'** in government records, and instructed the **Environment Ministry to publish these records on its website by April 15, 2024.**
- Additionally, the court mandated that the **establishment of zoos or safaris by any government or authority must receive final approval from the Supreme Court**.
- The case is set to be heard again in **July 2024.**

Verdict on woods

Some of the observations made by the SC over the pleas challenging the 2023 amendments to the Forest (Conservation) Act, 1980

- The "all-encompassing" dictionary meaning will continue to hold field until the States and Union Territories prepare a consolidated record of forest lands
- Environment Ministry should issue a circular in this regard to the States and Union Territories
- Establishment of "zoos or safaris" must have the final approval of the top court

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RIP Currents

- The **Indian National Centre for Ocean Information Services (INCOIS),Hyderabad** and the **Indian Space Research Organisation (ISRO)** are collaborating on a project to continually monitor and issue operational forecast alerts regarding **rip currents.**

About:
- Rip currents are powerful water flows **moving from a beach towards the open ocean, sea, or lake.**
- They can exceed 45 meters (150 feet) in width but are usually less than 9 meters (30 feet) wide, with speeds up to 8 kilometers (5 miles) per hour.
- Rip currents are considered one of the most **dangerous natural hazards globally.**

How are they formed?
- Rip currents form when **waves break near the shoreline, piling up water** between the breaking waves and the beach.
- One of the ways this **water returns to sea is to form a rip current,** a **narrow stream** of water moving swiftly away from shore, often perpendicular to the shoreline.
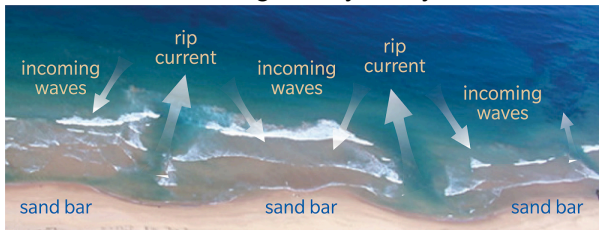
Amrit Darohar Initiative: Strengthening Communities and Conservation at Ramsar Sites
- The Centre has launched the fourth phase of training under the **'Amrit Darohar'**

capacity-building scheme.
- This initiative is targeted towards people residing close to the **Bhitarkanika National Park.**

Key points:
- **Collaboration:** The initiative involves collaboration between **IITTM-Bhubaneswar,** an autonomous body under the Ministry of Tourism (MoT), and the Ministry of Environment, Forest and Climate Change (MoEFCC).
- **Objective:** The aim is to build the capacity of 60 local community members around the Ramsar site to strengthen nature tourism and provide alternative livelihoods.
- **Training:** Local community members will be trained and certified as nature guides.

About:

Goal: The goal of Amrit Dharohar is **'to promote unique conservation values of Ramsar Sites'.**

Purpose

The purpose is to maintain a healthy and effectively managed network of Ramsar Sites which:
- To provide water and food security
- To buffer the landscape from floods, droughts, cyclones and other extreme events
- To generate local employment and support livelihoods
- To provide habitats for species of local, national and international conservation significance
- To maintain and enhance carbon sinks
- To conserve and celebrate rich cultural heritage.

Flue Gas Desulphurisation (FGD)
- The Union Minister for Power and New & Renewable Energy has announced the **installation of Flue Gas Desulphurisation (FGD)** equipment in thermal power plants to comply with emission norms set by regulatory bodies.

Proposed norms:

For TPPs installed prior to 31st December 2016: the permissible emission of SO2 - 600mg/Nm3 for < 500 MW TPPs;200mg/Nm3 for TPPs having > 500 MW capacity,For all TPPs installed after 1st January 2017: 100mg/Nm3.

Installation Timelines for FGD Equipment

To meet Sulphur dioxide (SO2) emission norms, thermal power plants are installing FGD

equipment with specified timelines based on location categories:

Category A:
- Within 10 km radius of National Capital Region (NCR) or cities with a population of one million or more (as per 2011 census).
- Deadline: 31st December 2024.

Category B:
- Within 10 km radius of Critically Polluted Areas or Non-attainment cities as defined by CPCB.
- Deadline: 31st December 2025.

Category C:
- Areas not included in Category A or B.
- Deadline: 31st December 2026.

Kyasanur Forest Disease

- Kyasanur Forest Disease (KFD), also known as **monkey fever,** is a viral infection first identified in 1956 in the **Kysanur Forest area of Sorab Taluk in Shivamogga district, Karnataka.**
- Since January 1 this year, **two people have died** due to Kyasanur Forest Disease (KFD).

Transmission and Symptoms
- KFD is transmitted through **tick bites,** with symptoms typically appearing three to eight days post-bite.
- Common symptoms include **fever, headache, body pain, and redness of the eyes.**
- Gastrointestinal symptoms may follow, and severe cases can involve nosebleeds. Diagnosis involves a blood test.

Current Situation and Measures
- **There is no specific treatment for KFD**
- While KFD was initially confined to Shivamogga district, it has since spread to other districts in Karnataka and neighboring states like Tamil Nadu, Kerala, and Maharashtra.
- The government is also exploring vaccine development in collaboration with organizations like the Indian Immunologicals.

US Environmental Protection Efforts

- The Biden administration introduces **stricter standards to combat soot pollution,** aiming to reduce fine particle matter emitted from various sources.
- The initiative anticipates **preventing thousands of premature deaths** annually, receiving praise from environmental and public health groups.

Policy Details and Impact
- The new rule sets a **maximum level of 9 micrograms of fine particle pollution per cubic meter of air**, down from the previous standard of 12 micrograms.
- It imposes air quality targets for states and countries to meet, affecting various sources of pollution such as power plants, vehicles, industries, and wildfires.
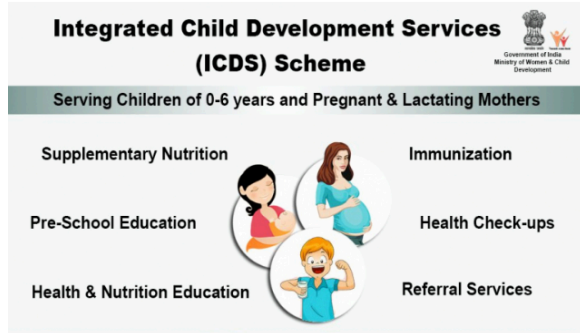
Social & Welfare Issues

Uttar Pradesh Model for Tackling Malnutrition

Integrated Child Development Services (ICDS) Scheme
Government of India
Ministry of Women & Child Development

Serving Children of 0-6 years and Pregnant & Lactating Mothers

Supplementary Nutrition — Immunization
Pre-School Education — Health Check-ups
Health & Nutrition Education — Referral Services

Context:
- Uttar Pradesh demonstrates the effectiveness of **women's empowerment in combating malnutrition** through community-based micro enterprises.
- Self-help groups produce **fortified and nutritious foods** for pregnant/breastfeeding mothers and children, distributed through the **Integrated Child Development Services (ICDS) programme.**

ICDS Programme:
- The Umbrella scheme - **Integrated Child Development Services (ICDS)** is a centrally sponsored scheme initiated by the Ministry of Women and Child Development in 1975.

Schemes under ICDS
- Anganwadi Services Scheme
- Pradhan Mantri Matru Vandana Yojana
- National Creche Scheme
- Scheme for Adolescent Girls
- Child Protection Scheme
- POSHAN Abhiyaan

Major Objectives of ICDS:
- Improve the nutritional and health status of children aged **0-6 years.**
- Ensure proper **psychological, physical, and social development of the child.**
- Reduce **mortality, morbidity, malnutrition,** and school dropout rates.
- Coordinate policy and implementation across departments.
- Enhance the capability of mothers to meet the health and nutritional needs of their children.
- **Educate and empower adolescent girls for self-reliance and awareness.**

Request for Neutrality

Context:
- The United Naga Council (UNC) Appeals for Non-involvement of Nagas in **Meitei-Kuki-Zo Conflict.**
- The UNC, representing Nagas in Manipur, seeks to distance Nagas from the ongoing

ethnic strife between Meiteis and Kuki-Zos.

Overview of Ethnic Violence in Manipur

- On 3 May 2023, ethnic tensions flared up in Manipur, a north-eastern state in India, primarily between the **Meitei community residing in the Imphal Valley and the Kuki-Zo tribal group inhabiting the surrounding hills.**

Causes:

- Following a court directive on 14 April 2023, the **Manipur High Court instructed the state government to forward a proposal to the central government regarding the Meitei community's demand for Scheduled Tribe status.**

World Wetlands Day 2024

World Wetlands Day
2 February 2024
Wetlands and Human Wellbeing

Context:

- World Wetlands Day is observed annually on **February 2** to raise awareness about the importance of wetlands and their conservation.
- This day marks the anniversary of the adoption of the **Ramsar Convention on Wetlands in 1971 in Ramsar, Iran,** an international treaty aimed at conserving and sustainably using wetlands around the world.
- **India** is also the part of Ramsar Convention and is one of the most active players in the group.
- Recently, the number of wetlands in India grew from **75 to 80.**

Theme:

The theme for World Wetlands Day changes each year to focus on different aspects of wetland conservation and management. Likewise, the theme of World Wetlands Day 2024 is **'Wetlands and human wellbeing'.**

Amount of tiny plastic particles in bottled water underestimated

- A study has confirmed the fragmentation of the plastic content of real-world water samples beyond the micrometer scale.

Key points:

- A liter of bottled water can contain **more than one lakh particles of micro- and**

nano-plastics, with 90% of those being the latter.

- Nanoplastics are difficult to analyze, mainly d**ue to their size and also due to the inability of different diagnostic** techniques to identify them.
- The study, conducted by **scientists at Columbia University in New York and published on January 8, 2024 in Proceedings of the National Academy of Sciences,**The investigation revealed the presence of around **2.4 lakh micro- and nano-plastic particles per liter of bottled water (give or take 1.3 lakh).**
- The algorithm the research team used to track the presence of plastics in bottled water could spot following the types: **polyamide 66, polypropylene (PP), polyethylene, polymethyl methacrylate, polyvinyl chloride (PVC), polystyrene, and polyethylene terephthalate (PET).**

World Day of Social Justice

- The **United Nations General Assembly** designated February 20th as the annual World Day of Social Justice, starting from the sixty-third session of the General Assembly, in a declaration made on November 26, 2007.
- **The theme of World Day of Social Justice 2024 is "Bridging Gaps, Building Alliances".**

Social Justice in Indian Scenario

- In India, **social justice is a multifaceted concept** that encompasses a wide range of issues, **including casteism, discrimination against women, and economic inequality**.
- The Indian Constitution adopts this concept in various provisions, including the **preamble in the form of 'Socialist', 'Social and Economic Justice', 'Equality', etc**., which clearly states that the state is extensively involved in the social welfare of people and endeavors to establish an equal society.

Govt Schemes that aid Social justice:

- **MGNREGA**
- **Skill India Mission**
- **ICDS**
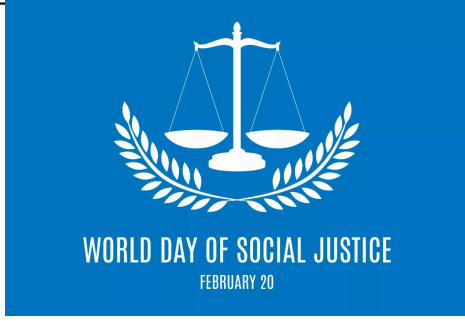- **PM Awas Yojana**
- **Atal Vayo Abhyuday Yojana (AVYAY)**
- **PM-JANMAN**

WORLD DAY OF SOCIAL JUSTICE
FEBRUARY 20

Forest Dwellers' Rights in Tamil Nadu

- Tamil Nadu has been slow in implementing the **Forest Rights Act (FRA)** compared to other states in India, particularly evident in the **Thanthai Periyar Sanctuary notification in Erode district.**
- This notification raised concerns among forest-dwellers about potential denial of their rights under the FRA.

Key points:
- Forest villages are settlements **within forest areas inhabited by tribal or indigenous communities.**
- In **1990, the Union Ministry of Environment** and Forests (MoEF) mandated the conversion of forest villages into revenue villages, a process also reinforced by the **Forest Rights Act (FRA) of 2006.**
- The recent sanctuary notification acknowledges that rights granted under the **Tamil Nadu Forest Act of 1882 and the FRA will be preserved, but Tamil Nadu has been slow in implementing the FRA compared to other states in India.**

World Government Summit 2024

- The **World Government Summit (WGS) is an annual global event** that brings together world leaders, policymakers, experts, and thought leaders from various fields to discuss and tackle pressing global issues.
- **Established in 2013** under the leadership of the Vice President and Prime Minister of the UAE, the summit **takes place annually in Dubai, UAE.**
- Through its various activities, the **summit explores the agenda of the next generation of governments, emphasizing the use of innovation and technology to address universal challenges.**
- Since its inception, the summit has aimed to shape future governments and create a better future for humanity.

In 2024, the World Government Summit will focus on the theme **"Shaping Future Governments"** and will delve into six main themes:
- Government Acceleration and Transformation
- Artificial Intelligence and The Next Frontiers
- Reimagining Development and Future Economies
- Future Societies and Education
- Sustainability and The New Global Shifts

● Urbanization and Global Health Priorities

World Sustainable Development Summit 2024

- **Annual Flagship Event:** The WSDS is the annual flagship event of The **Energy and Resources Institute (TERI).**
- **Legacy:** Instituted in 2001, the Summit series has a legacy of over two decades, aiming to make **'sustainable development'** a globally shared goal.
- **Global South Focus:** It is the only independently convened international summit on sustainable development and environment, with a focus on the Global South.
- **Objective:** WSDS strives to provide long-term solutions for the benefit of global communities by assembling the world's most enlightened leaders and thinkers on a single platform.
- **23rd Edition:** WSDS 2024 marks the **23rd edition of the summit.**
- **Theme:** The theme for WSDS 2024 is **'Leadership for Sustainable Development and Climate Justice'.**

The Energy and Resources Institute (TERI)

- **Leading Think Tank:** TERI is a leading think tank dedicated to conducting research for the sustainable development of India and the Global South.
- **Multidimensional Organization:** It is an independent, multidimensional organization with capabilities in research, policy, consultancy, and implementation.
- **History:** Established in 1974 as an information center on energy issues, TERI initiated research activities in 1982 with a focus on efficient utilization of energy and sustainable use of natural resources.

Focus Areas:
- Promoting efficient use of resources
- Increasing access to and uptake of sustainable inputs and practices
- Reducing the impact on the environment and climate.
- **Location:** TERI is headquartered in New Delhi.

Corruption Perception Index (CPI), 2023

Context:
- India's ranking on the **Corruption Perception Index (CPI) for 2023 is 93 out of 180 countries.**
- India's overall score in 2023 was **39, a minor decrease from 40 in 2022.**
- **The country's rank in 2022 was 85.**

Corruption Perception Index (CPI):
- The CPI is an annual assessment that evaluates countries based on their perceived levels of public sector corruption.
- Published by Transparency International, a global non-governmental organization combating corruption.

Key Points:
- **Scale:** Countries are scored on a scale of 0 to 100, where a higher score indicates lower perceived corruption and a cleaner public sector.
- **Ranking:** Based on their scores, countries are then ranked, with the least corrupt being positioned higher.
- **Data Sources:** The CPI aggregates data from various sources, including surveys and assessments by organizations and institutions that evaluate corruption levels.
- **Expert Opinions:** It includes the opinions of experts and business leaders regarding the level of corruption in the public sector

Maldives Seeks Sri Lanka's Medical Evacuation Support

India-Maldives Strain: The Maldives has turned to Sri Lanka for medical evacuation assistance, seeking alternatives amid **strained relations with India.**

Key Points:
- **Maldivian Minister of Transport and Civil Aviation Mohamed Ameen** met with Sri Lankan counterpart Nimal Siripala de Silva in Colombo.
- Minister Ameen shared on 'X' platform that Sri Lanka has agreed to assist in medical evacuation, emphasizing the creation of a framework for immediate approval on urgent requirements.
- President Muizzu's initiative to establish an **air ambulance service by March 2024** aims to enhance prompt medical evacuation capabilities, allowing patients to travel even to distant locations like Thailand.

Way forward:
- The Maldives' collaboration with Sri Lanka for medical evacuation signals a **strategic move to diversify partnerships, particularly amid strained relations with India.**
- The initiative aligns with President Muizzu's broader efforts to enhance emergency medical services, addressing recent challenges and aiming for international collaborations.

Myanmar's Civil Unrest

Context:
- Myanmar's internal conflict intensifies as opposition to military rule strengthens, with **Ethnic Armed Organisations (EAOs) gaining control in various regions.**
- The recent capture of **Paletwa by the Arakan Army,** a town with strategic importance on the **western border,** underscores the growing complexity of the situation.
- The fall of Paletwa shifts the dynamics between the Chin and Arakan ethnic groups, sparking tensions over historical territorial claims.
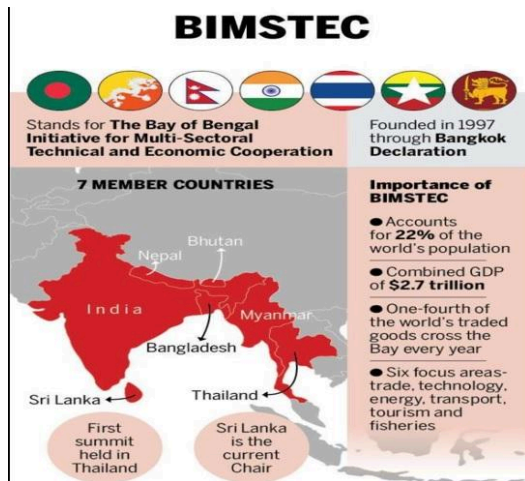
Impact on Kaladan Project:
- The developments in Paletwa affect **India's Kaladan Multimodal Transit Transport Project (KMTTP),** aimed at providing **northeast India with an alternative trade route.**
- Delays in the Kaladan project are attributed to various challenges, including security concerns and local attitudes toward the project.

China's Economic Expansion and Geopolitical Influence
- China's investments in Myanmar, particularly in the **Rakhine State, include oil and gas pipelines** and plans for a deep-sea port and economic zone.
- **The China-Myanmar Economic Corridor (CMEC)** aims to further enhance connectivity between the two countries, potentially altering regional power dynamics.
- China's influence in Myanmar poses challenges for **India's connectivity and development projects, necessitating a nuanced approach to regional diplomacy.**

1st BIMSTEC Aquatics Championships

BIMSTEC

Stands for **The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation**

Founded in 1997 through **Bangkok Declaration**

7 MEMBER COUNTRIES

Nepal, Bhutan, India, Myanmar, Bangladesh, Sri Lanka, Thailand

First summit held in Thailand

Sri Lanka is the current Chair

Importance of BIMSTEC
- Accounts for **22%** of the world's population
- Combined GDP of **$2.7 trillion**
- One-fourth of the world's traded goods cross the Bay every year
- Six focus areas - trade, technology, energy, transport, tourism and fisheries

Context:
- Anurag Singh Thakur initiated the BIMSTEC Aquatics Championships 2024 in **New Delhi's**

Dr. Syama Prasad Mookerjee Swimming Pool Complex which will be held from February 6th to 9th, 2024.

- The championship marks the first of its kind within the **BIMSTEC region.**

Vision and Background
- Narendra Modi announced the **BIMSTEC Youth Water Sports competition during the 4th BIMSTEC Summit in 2018.**
- Initially planned for 2021, the event was rescheduled to 2024 due to the COVID-19 pandemic.
- Competitions include Swimming, Water Polo, and Diving events for the Under 20 age category.

BIMSTEC:
- BIMSTEC **(The Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)** constitutes a unique link between South and South-East Asian countries with five members from **South Asia (Bangladesh, Bhutan, India, Nepal and Sri Lanka) and two members from South-East Asia (Myanmar & Thailand).**
- BIMSTEC It is an economic bloc that came into being in **June 1997** through the **Bangkok Declaration.**
- BIMSTEC was initially formed with four member states- Bangladesh, India, Sri Lanka and Thailand on June 6, 1997.
- Nepal became an observer state in 1998 and became a full-time member of the bloc along with Bhutan in February 2004.

Nigeria
- Nigeria is currently grappling with one of its severest economic crises in recent years, largely due to **skyrocketing inflation caused by monetary policies** that have drastically devalued the currency against the dollar.
- This dire situation has sparked widespread anger and protests throughout the country.

About:
- Officially known as the **Federal Republic of Nigeria,** it is located in **West Africa,** bordered by **Niger to the north, Chad to the northeast, Cameroon to the east, and Benin to the west.**
- Nigeria is bordered by the **Sahel to the north and the Gulf of Guinea to the south** in the **Atlantic Ocean.**
- It stands as the **sixth-most populous country globally,** comprising **36 states and the Federal Capital Territory, with Abuja serving as the capital.**
- **Lagos,** one of the world's largest metropolitan areas, is Nigeria's largest city.

Economy:
- The country's economy has been severely affected, experiencing its deepest recession in four decades in **2020.**
- In 2023, Nigeria witnessed a **17-year high inflation rate of 25.8%,** contributing to sluggish growth and pushing millions into poverty.

Challenges:

- Several economic challenges plague Nigeria, including the **devaluation of its currency** due to monetary policies, an **ongoing supply crisis in the power sector** despite abundant coal, oil, and gas reserves, and a **soaring cost of living** exacerbated by rising prices and heightened insecurity on the roads.

India – UAE Relations

- Prime Minister Narendra Modi's upcoming visit to the **UAE signifies the importance of the bilateral relationship.**
- Narendra Modi is scheduled to visit the UAE from **February 13-14, 2024**.
- He will inaugurate a temple built by the **Bochasanwasi Shri Akshar Purushottam Swaminarayan Sanstha in Abu Dhabi.**

Overview of India – UAE relationship:

- India's relationship with the UAE has become one of its most significant bilateral relationships, evolving into a strategic partnership.
- The UAE has become an **important partner for India's engagement in the Gulf region.**
- There's a close rapport between UAE President Sheikh Mohamed bin Zayed Al Nahyan and Mr. Modi.
- **The BAPS temple, constructed on a 27-acre plot donated by the UAE President, is the second big Hindu temple to be inaugurated in the UAE recently.**
- Mr. Modi will also address the World Government Summit on February 14 in Dubai as the 'Guest of Honour'.

Indian Ocean Conference

- The 7th Indian Ocean Conference (IOC) 2024, was held on February 9-10, 2024, in **Perth, Australia.**
- **It was attended by representatives from 40 countries and Foreign Ministers from various regional nations participated in the event.**

Conference Objectives:

The primary focus of the conference was to facilitate discussions on regional cooperation and propose solutions concerning:

- **Regional security**
- **Economic development**
- **Environmental protection**
- **Maritime safety within the Indian Ocean region.**

Theme:
- The theme of the conference was **"Towards a Stable and Sustainable Indian Ocean,"** emphasizing the importance of stability and sustainability in the region's geopolitical and environmental landscape.

About:

IOC is an annual event fostering cooperation between countries bordering the Indian Ocean.

India - China Bilateral Trade

- In 2023, India-China bilateral trade surged to a new peak, surpassing the previous year's figures despite a temporary slowdown.
- The Chinese envoy to India, **Ma Jia,** disclosed that trade between the two countries reached **$136.2 billion.**

Key points:
- Ma Jia revealed that bilateral trade volume in **2023 saw a year-on-year growth of 1.5%,** with India's exports to China also experiencing a notable 6% increase.
- The year 2022 witnessed a significant milestone in bilateral trade, with transactions amounting to **$135.98 billion.**
- Notably, imports from China exceeded **$100 billion, marking a 21% increase** despite persistent tensions over the military standoff at the **Line of Actual Control (LAC).**

Surrogacy rules

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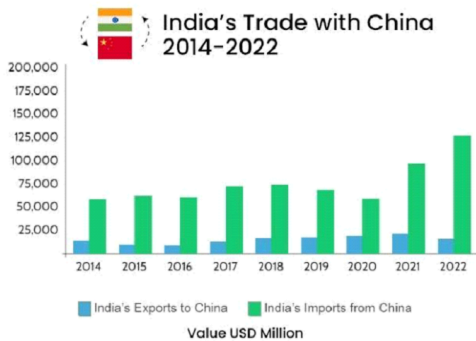
- The Union government modified the **Surrogacy (Regulation) Rules, 2022,** on February 21, **allowing married couples to use donor eggs or sperm for surrogacy, a relief for those with medical issues.**

Key points:
- **Surrogacy, a process where a woman (the surrogate mother) carries and delivers a baby for a couple** (the intended parents), is a complex and evolving field.
- It involves two main types: **traditional surrogacy**, where the surrogate mother is also the biological mother of the baby, and **gestational surrogacy,** where an **embryo created through in vitro fertilization (IVF)** is implanted in the surrogate mother's uterus, making her not genetically related to the baby.
- In India, surrogacy has seen significant changes, with the **Surrogacy (Regulation) Act, 2021,** coming into effect. This Act prohibits commercial surrogacy and allows altruistic surrogacy, where a woman can voluntarily act as a surrogate for intended parents without any monetary compensation except for medical expenses and insurance.

Sweden joins NATO

- **Sweden has overcome the final obstacle to join NATO as Hungary has approved its accession.**
- Sweden's parliament approved NATO accession on, **marking the end of its neutrality that endured two world wars and the Cold War.**

Key points:
- Sweden's membership will also contribute resources like advanced submarines and Gripen fighter jets to NATO.
- Russia's invasion of Ukraine accelerated support in Sweden for NATO membership, especially after **Finland joined last year.**
- **Turkey and Hungary,** however, initially raised objections, with Turkey seeking tougher action against Kurdish militants in Sweden and Hungary expressing annoyance over Swedish criticism of its democracy under Orban.
- Now the count of NATO countries has become **32.**

NATO:
- The **North Atlantic Treaty Organization was created in 1949** by the United States, Canada, and several Western European nations to provide collective security against the Soviet Union.
- NATO was the first peacetime military alliance the United States entered into outside of the Western Hemisphere.

S. Korean President to visit India

- South Korean President **Yoon Suk Yeol** is expected to visit India this year, as announced by South Korean envoy Chang Jae-bok.

Key points:
- The two countries are hopeful of c**oncluding ongoing negotiations to upgrade the existing CEPA.** The last round of talks on the CEPA upgrade was held in January in Delhi

- The existing CEPA was made in **2009 and became effective in 2010.**
- Negotiations for an upgraded CEPA were held in **2016** and 2017 but halted during the pandemic.
- External Affairs Minister S. Jaishankar is **scheduled to pay bilateral visits to South Korea and Japan from March 5 to 8.**
- He will co-chair the 1**0th India-Republic of Korea Joint Commission Meeting (JCM) with his counterpart Cho Tae-yul.**
- There will be discussions on **defence, defence production, and economic cooperation.**
- South Korea is going to **launch its space administration very soon and is looking to cooperate with the Indian Space Research Organisation (ISRO) in low orbit satellites**

Person in News & Awards

66th Annual Grammy Awards

Context:
- The 66th Annual Grammy Awards, hosted by Trevor Noah, showcased the music industry's elite at the Crypto.com Arena in **Los Angeles, California.**

Best Global Music Album: Shakti's "This Moment"
- Musicians **Shankar Mahadevan and Zakir Hussain's fusion band Shakti** won the Grammy Award for Best Global Music Album with their latest release, **"This Moment."**
- The group, including guitarist John McLaughlin and others, received recognition for their exceptional contribution to global music.

Album of the Year: Taylor Swift's "Midnights"
- American singer-songwriter **Taylor Swift** secured the highly anticipated Album of the Year award for her album **"Midnights,"** surpassing notable nominees such as SZA, Jon Batiste, and others.

Record of the Year: Miley Cyrus' "Flowers"
- Miley Cyrus' hit **"Flowers"** bagged the Record of the Year award, adding to the night's diverse musical achievements.

Song of the Year: Billie Eilish's "What Was I Made For?"
- Billie Eilish's soulful ballad **"What Was I Made For?"** from Greta Gerwig's fantasy comedy Barbie was named the Song of the Year, contributing to the celebration of musical excellence.

Trevor Noah's Fourth Hosting Stint
- South African comedian and writer **Trevor Noah** hosted the Grammy Awards for the fourth time, infusing humor and charisma into the evening

Champai Soren's Swearing-in as 12th CM of Jharkhand
- Champai Soren, a leader of **Jharkhand Mukti Morcha (JMM),** took oath as the **twelfth Chief Minister of Jharkhand.**
- Rashtriya Janata Dal (RJD) MLA Satyanand Bhokta and Congress MLA Alamgir Alam were sworn in as Cabinet Ministers in the new government.

Jnanpith Awards

Context:
- The Jnanpith Awards, considered India's highest literary honor, were recently conferred upon **Gulzar and Sanskrit scholar Jagadguru Rambhadracharya.**
- The Jnanpith Award is presented annually since **1965 by Bharatiya Jnanpith, established in 1944**, to recognize outstanding contributions to Indian literature.
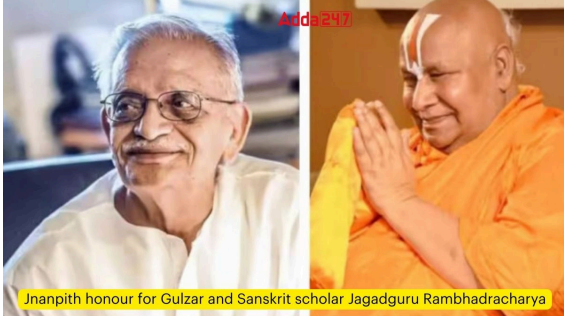
Gulzar
- Gulzar, also known as **Sampooran Singh Kalra, is a renowned Urdu poet,** Bollywood director, and writer, recognized for his contributions to Urdu literature and Hindi cinema.
- He has received numerous awards, including the **Sahitya Akademi Award, Dadasaheb Phalke Award, Padma Bhushan, and National Film Awards.**
- He won an **Oscar and Grammy for the song "Jai Ho"** from Slumdog Millionaire and has introduced a new genre in poetry called **'Triveni'.**

Jagadguru Rambhadracharya
- He is a Sanskrit scholar, Hindu spiritual leader, educator, and writer, known for founding and leading **Tulsi Peeth in Madhya Pradesh.**
- He has written over 240 books, including four epics, and is a polyglot speaking 22 languages.
- He received the **Padma Vibhushan in 2015.**
- **He was born in 1950 in Jaunpur, Uttar Pradesh.**

Award Details:
- The award carries a cash prize of ₹11 lakh, a statue of Vagdevi, and a citation.
- This is the second time it has been awarded for Sanskrit and the fifth time for Urdu.

Jnanpith honour for Gulzar and Sanskrit scholar Jagadguru Rambhadracharya

Bharat Ratna Awardees Announced

- The Bharat Ratna, India's highest civilian honor, will be conferred upon three notable figures: **M.S. Swaminathan, P.V. Narasimha Rao, and Chaudhary Charan Singh.**
- These individuals join the list of esteemed awardees, which includes **L.K. Advani and Karpoori Thakur,** making this year's tally the longest ever announced.

Key points:
- This year's announcement marks a record with **five Bharat Ratna awardees**, surpassing the previous highest count from 1999.
- Notably, four out of the five awards are being given **posthumously**.

Bharat Ratna to Honor PV Narasimha Rao, Chaudhary Charan Singh, and MS Swaminathan

First Pey Jal Survekshan Awards

- The **inaugural Pey Jal Survekshan Awards,** to be presented by the President on **March 5th,** will **commend cities and states** for their outstanding achievements in the **water sector.**
- The ceremony, hosted at Vigyan Bhawan, will **honor a diverse array of 130 awards, recognizing exemplary performance in various categories.**

Key points:

- Awards comprise of **Prestigious Pey Jal Gold, Silver, and Bronze City Awards**, where Gold signifies top performers (1st) in their respective population categories (1 to 10 Lakh, 10 to 40 Lakh, and More than 40 Lakh), Silver denotes the 2nd position, and Bronze the 3rd.
- Additionally, commendations will be awarded for **Best Water Body, Sustainability Champion, Reuse Champion, Water Quality, City Saturation, and the coveted AMRUT 2.0 Rotating Trophy of the Year.**
- The meticulous evaluation process, conducted **under AMRUT 2.0 in 485 cities,** considered a **wide range of parameters, including access, coverage, water quality, and sustainability**.
- Cities will be graded on a star rating scale, reflecting their performance across critical criteria.

AMRUT Mitra Initiative:

- This initiative aims to **actively involve women Self-Help Groups (SHGs)** in the urban water sector, empowering them to contribute significantly to **household water management and infrastructure maintenance.**

Aegis Graham Bell Awards

- C-DOT, India's leading telecom Research and Development center, has received significant recognition by winning three awards at the **14th Annual Aegis Graham Bell Awards.**
- These awards highlight C-DOT's innovative telecom solutions developed and designed in India across various categories.

Awards:
Innovation in AI: ASTR Project

- The first award, jointly shared with Google India, was conferred upon **C-DOT for its pioneering ASTR Project under the category "Innovation in AI."**

- This innovative solution is designed to **analyze, identify, and eliminate fake/forged mobile connections, marking a significant stride towards ensuring a secure telecom environment.**

Innovation in Social Good: CEIR Solution
- C-DOT secured the second award in the category **"Innovation in Social Good"** for its groundbreaking **CEIR (Central Equipment Identity Register) solution.**
- CEIR has revolutionized mobile security by detecting clone IMEIs, restricting the import of counterfeit mobile devices, and facilitating the blocking and tracing of lost or stolen phones.

Innovation in Telecom: Quantum Key Distribution (QKD) Product
- The third accolade was bestowed upon C-DOT in the category **"Innovation in Telecom" for its Quantum Key Distribution (QKD) product.**
- This revolutionary solution ensures unparalleled security, marking a significant advancement in the field of telecommunications.

AEGIS
GRAHAM BELL
AWARDS

Miscellaneous/GK

Gulf Stream

- **A recent study suggests that the Gulf Stream could collapse as soon as 2025, potentially leading to a mini ice age.**

Key points:
- The Gulf Stream is a **major ocean current** that profoundly impacts **climate, weather, and marine ecosystems, starting in the Gulf of Mexico and extending across the Atlantic Ocean to Europe.**
- It flows northeastward along the eastern coast of the United States before veering eastward into the Atlantic Ocean and towards Europe.

Impacts:
- The **Gulf Stream's impact on climate and weather** has significant economic implications for industries like **agriculture, fishing, tourism, and transportation.**
- It influences **sea routes and shipping lanes**, affecting navigation and **trade between North America and Europe.**
- For example, ports such as **Miami and Savannah in the USA** benefit from the Gulf Stream's moderating influence, maintaining relatively mild temperatures year-round.
- Similarly, the **Port of Rotterdam in the Netherlands and the Port of Hamburg in Germany** benefit from the Gulf Stream, facilitating year-round shipping activities without significant interruptions due to ice formation.

- The **Port of Antwerp in Belgium** also benefits. Changes in the Gulf Stream could have far-reaching consequences for coastal communities, economies, and ecosystems.

Schengen zone

- **Kosovo** recently secured visa-free access to the Schengen Zone in Europe.

About:

- The Schengen zone refers to an area in Europe where internal border controls have been abolished among **27 countries.**
- This allows for passport-free travel within these countries. Recent developments include Kosovo gaining visa-free access, **Croatia joining in 2023, and Romania and Bulgaria** set to gain partial entry in March.
- The Schengen Area operates under a **common visa policy and includes 23 EU member states and four non-EU members.**
- The area aims to promote tourism and trade, enhance security, and provide convenience, but it also faces challenges such as managing migration and standardizing procedures.
- **Four non-EU members: Iceland, Liechtenstein, Switzerland, and Norway.**

SWATI Portal: Empowering Women in STEMM

- The Principal Scientific Advisor to the Government of India launched the **"Science for Women-A Technology & Innovation (SWATI)"** Portal.

About SWATI Portal:

- **Purpose:** Represents and showcases Indian women and girls' contributions in STEMM fields.
- **Database:** Comprehensive database aiding policymakers in addressing gender gap
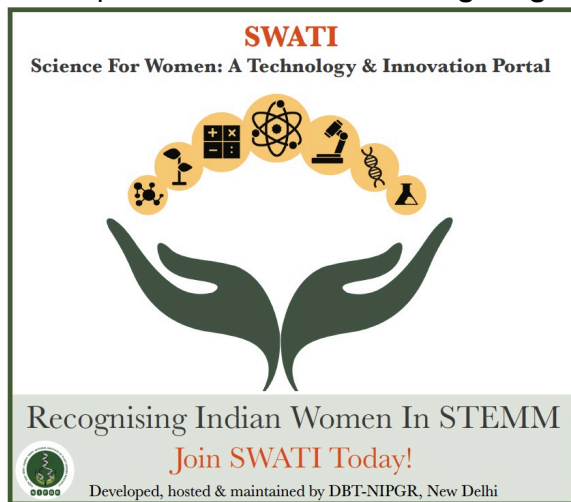
challenges.
- **Interactive Features:** Designed to be interactive, facilitating easy access and contribution to the database.
- **Development:** Developed, hosted, and maintained by the **National Institute of Plant Genome Research (NIPGR) in New Delhi.**

Objectives:
- **Exponential Scaling:** To include every Indian woman in science across all career stages and subjects.
- **Research Support:** Compilation of a comprehensive database to support long-term research on equality, diversity, and inclusivity.
- **Active Search Engine:** Easy access to information about women scientists, their affiliations, areas of interest, and achievements.

Do you know?
- **National Women's Day in India is celebrated every year on 13 February.**
- The day marks the birth anniversary of Sarojini Naidu, an eminent freedom fighter and poet, also known as the **"Nightingale of India".**

SWATI
Science For Women: A Technology & Innovation Portal

Recognising Indian Women In STEMM
Join SWATI Today!
Developed, hosted & maintained by DBT-NIPGR, New Delhi

Sangeet Natak Akademi

- **Sangeet Natak Akademi to have South India centre in Hyderabad.**
- Sangeet Natak Akademi (SNA): A national institution **founded on 31 May 1952.**
- **Aim:** To preserve and promote India's rich cultural heritage in music, dance, and drama.

Key points:
- Apex body for performing arts, collaborating with governments and art academies.
- Established institutions like Manipur Dance Academy and Kathak Kendra.

Awards and Recognitions
- Sangeet Natak Akademi Award: Highest recognition for artists and scholars.
- SNA Fellowship (Ratna Sadsya): For distinguished individuals.
- Ustad Bismillah Khan Yuva Puraskar: For young artists.
- Tagore Ratna and Tagore Puraskar: Honoring Rabindranath Tagore.
- Kala Deeksha Initiative: Continuing Guru Shishya Parampara.

Aadi Mahotsav 2024

- The President inaugurated **Aadi Mahotsav 2024, an annual National Tribal Festival held at the Major Dhyan Chand National Stadium in New Delhi.**
- Organized by TRIFED under the Ministry of Tribal Affairs, this event showcases the rich diversity of India's tribal heritage.

Objectives:
- **Showcasing Talent:** Aadi Mahotsav serves as a platform to showcase the extraordinary talent and craftsmanship of tribal artisans, displaying a vast array of tribal art, handicrafts, natural produce, and cuisine.
- **Empowerment:** The festival aims to empower tribal communities by providing them with a direct market to sell their products, generate income, and gain recognition for their skills.
- **Celebrating Diversity:** It's a celebration of the vibrant and diverse tribal culture, promoting awareness, understanding, and appreciation for their unique traditions and contributions to India's heritage.

TRIFED:
- **Tribal Co-operative Marketing Development Federation of India** is a national level cooperative body under the administrative control of Ministry of Tribal Affairs, Government of India founded in **1987.**

The Healthy Indian Project (THIP) and Vaccine Safety Net (VSN)

- **The Healthy Indian Project (THIP)** has recently joined the **Vaccine Safety Net (VSN)** established by the World Health Organization (WHO).
- This collaboration aims to provide **reliable vaccine safety information to the Indian population,** aligning with global efforts to ensure accurate immunization details.

Details:
- **THIP is a prominent health information platform in India.**

- This membership highlights THIP's dedication to delivering credible and verified vaccine safety information to the people of India.
- VSN, consisting of **110 websites from 45 countries and offering information in 43 languages,** serves as a global network providing trustworthy vaccine safety information.

Key highlights:
- THIP's inclusion in VSN enhances the credibility of its vaccine safety information.
- Adherence to strict standards and regular evaluations ensure the accuracy and trustworthiness of THIP's content.
- Membership in VSN grants THIP access to a broader audience, facilitating the dissemination of accurate vaccine information across diverse populations in India.
- THIP, as a VSN member, plays a pivotal role in promoting public health initiatives in India.

First Lunar Landing by a PRIVATE FIRM

Context:
- On 24th February, 2024, a significant milestone in the field of Science and Technology was achieved when the **Odysseus lander, built by Intuitive Machines, successfully landed on the moon.**

Key points:
- This achievement marks the return of the United States to the lunar surface for the first time since the closure of **NASA's Apollo program in 1972.**
- The successful landing by Intuitive Machines marks a significant milestone in space exploration, demonstrating the growing capabilities of the private sector in lunar missions.
- With more planned missions in the future, the moon continues to be a focal point for exploration and scientific discovery.

CE-20 engine

- The Indian Space Research Organisation (ISRO) achieved a notable accomplishment on February 21 by declaring the successful human-rating of the **CE-20 rocket engine.**
- This homegrown cryogenic engine, designed to propel the GSLV Mk III **(currently known as LVM-3)** launch vehicle, signifies a crucial progression in India's space exploration efforts, especially with regard to the **forthcoming Gaganyaan mission.**

Key points:
- ISRO has developed three cryogenic engines: KVD-1, CE-7.5, and CE-20.

- The CE-20 engine, using the gas-generator cycle, is easier to build and test compared to the CE-7.5 engine, which uses the **staged-combustion cycle.**
- Despite the CE-7.5 engine's higher fuel-use efficiency, the **CE-20 engine achieves a higher maximum thrust, making it ideal for the LVM-3 launch vehicle and the Gaganyaan mission**

Gaganyaan crew

- **Four IAF pilots have been identified as potential crew members for the Gaganyaan mission**, as Prime Minister Narendra Modi honored them with 'astronaut wings' during his visit to the Vikram Sarabhai Space Centre in Thiruvananthapuram.

Key points:
- These pilots have undergone rigorous training **both in Russia and at the ISRO Astronaut Training Facility in Bengaluru.**
- In preparation for the crewed mission, ISRO is conducting various tests, including Integrated Air Drop tests, Test Vehicle Missions, and pad Abort Tests, with unmanned flights preceding the actual mission.
- **Additionally, ISRO has unveiled plans to send astronauts to the moon by 2040.**

Gaganyaan:
- The Gaganyaan Mission is India's ongoing endeavor **to launch a three-day manned mission into Low Earth Orbit (LEO) at an altitude of 400 km,** carrying a crew and safely returning them to Earth.
- The inaugural manned spaceflight is scheduled fo**r 2024(by the end of the year).**
- Success in this mission will elevate India to join the elite group of nations—**US, Russia, and China—with human spaceflight capabilities.**
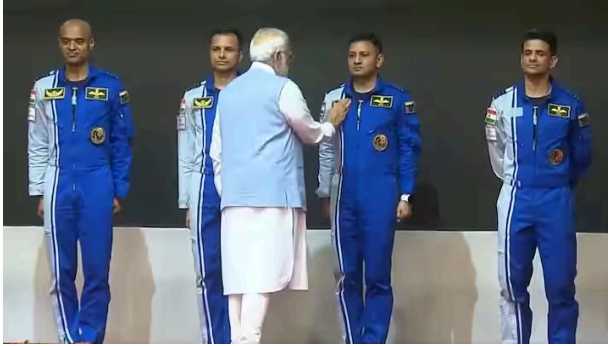
India's Fight Against Rare Diseases

The tragic death of 19-year-old child actress Suhani Bhatnagar from dermatomyositis, a rare disorder that causes inflammation in muscles, came in the same month as Rare Disease Day. The last day of February every year is consecrated to support crores of individuals who, because of their rare medical conditions, have long been neglected and stigmatised.

Global Perspective
- According to the **World Health Organization, rare diseases afflict 1 or less per 1,000 population**.
- Barely 5% of the over 7,000 known diseases worldwide are treatable.
- Most patients typically receive only basic treatment that alleviates symptoms.

- Some require exorbitantly priced antidotes and supportive medication throughout their lives, which they can't afford.

Rare Diseases in India

- India accounts for **one-third of the global rare disease incidence**, with over 450 identified diseases.
- These range from widely known ones such as Spinal Muscular Atrophy and Gaucher's disease to lesser-known ones such as Mucopolysaccharidosis type 1 and Whipple's disease.
- Roughly about **8 crore-10 crore Indians suffer from one rare disease or another;** over 75% are children.
- Yet these diseases are **largely overlooked.** Resource constraints apart, India languishes near the bottom on awareness, diagnosis, and drug development for rare diseases.

Way forward:

- State governments must introduce **social assistance programmes and develop satellite centres under the CoEs.**
- Public and private companies could be co-opted for funding;
- CSR initiatives and partnerships can be leveraged to meet shortfall