Factly Weekly

Compilation

2026

For UPSC CSE Prelims Exam

4th Week

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INDEX

Bismarck Sea

News: A submarine volcanic eruption began on 8 May along the Titan Ridge in the Bismarck Sea, highlighting poor mapping of Earth's deep ocean floor.

About Bismarck Sea

Source – Free World Maps

- **Location: The Bismarck Sea lies in the southwestern Pacific Ocean near the northeast coast of Papua New Guinea.**
- **Nomenclature: It was named after the German statesman Otto von Bismarck.**
- **Area: It covers about 40,000 sq. km.**
- **Boundaries: It is bounded to the southwest by the northeast coast of Papua New Guinea and from the northwest to southeast by the Bismarck Archipelago.**
- **Bismarck Archipelago: It includes the Admiralty Islands (north), New Ireland (east), and New Britain (southeast).**
- **Linkages: The sea opens to the Pacific Ocean in the north and connects to the Solomon Sea through the Vitiaz and Dampier straits and St. George's Channel.**
- **Depth: The basin has a depth of about 2,000 m to 2,500 m.**
- **Basin Division: A central ridge divides the basin into the eastern New Ireland section and the western New Guinea section.**
- **Tectonic Activity: The Bismarck Sea lies in a geologically complex zone with faults, volcanic ridges, rifts, active subduction zones, and spreading zones at great depths.**
- **Mineral Richness: Such active tectonic and volcanic processes make the region important for deep-sea mineral richness.**

- **Historical Importance: During World War II, the sea witnessed major naval battles, including the 1943 Battle of the Bismarck Sea, where Allied forces stopped a Japanese convoy.**

Agni-1 Ballistic Missile

News: Short-range ballistic missile Agni-1 was successfully test-launched from Chandipur, Odisha, on May 22, 2026, under Strategic Forces Command.

About Agni-1 Ballistic Missile

Source – ET

- **Agni-1 is an indigenously developed, nuclear-capable surface-to-surface Short-Range Ballistic Missile (SRBM).**
    - **The Agni missile series includes Agni-I, Agni-II, Agni-III, Agni-IV, Agni-V, with Agni-V being the most advanced missile in the series.**
- **Origin: Agni-1 originated from India's 1983 Integrated Guided Missile Development Programme (IGMDP), and its development began in the mid-1990s.**
- **Developed by: The missile was developed by the Defence Research and Development Organisation (DRDO) and produced by Bharat Dynamics Limited (BDL).**
- **Test and Induction: It was first test-fired in January 2002 and inducted into the Indian Army in 2004.**
- **Operational Deployment: It was later handed over to the Strategic Forces Command for operational deployment and regular training exercises..**
- **Key Features:**
    - **Missile Type: Agni-1 is a single-stage, solid-fuelled surface-to-surface short-range ballistic missile, although it can reach medium-range capability with lighter payloads.**
    - **Range: The missile has a range of 700 km to 1200 km, depending on the payload carried during operations.**
    - **Payload Capacity: It can carry a payload of up to 1,000 kg, including nuclear or conventional warheads.**
    - **Propulsion System: The missile uses a solid-propellant booster based on ISRO's SLV-3 and employs HTPB (Hydroxyl-Terminated Polybutadiene) composite propellant with high thrust generation.**

- Mobility: Agni-1 can be launched from rail-based platforms or road-mobile transporter erector launchers (TELs), improving survivability and rapid deployment capability.
- Guidance and Navigation System: The missile uses a strapdown inertial guidance system along with thrust vectoring and wingtip control surfaces for accurate maneuvering and precision targeting.

Sakura Science Programme 2026

News: The Department of School Education & Literacy (DoSEL), Ministry of Education (MoE), today flagged off a group of students participating in the Sakura Science Programme 2026 at a ceremony held at NCERT, New Delhi.

About Sakura Science Programme 2026

Source – JST

- The Sakura Science Exchange Program invites young minds from Asia and around the world to Japan for short-term cultural and scientific exchanges.
- Aim: It aims to deepen scientific curiosity, foster international collaboration, and introduce participants to Japan's cutting-edge research and technology.
- Also known as: Japan Asia Youth Exchange Program in Science
- Implemented by: Japan Science and Technology Agency (JST)
- Launched in: 2014
- Under the programme, students are invited to Japan for one week to experience the country's advanced science and technology ecosystem and its rich cultural heritage.
- Eligibility Criteria: Students, researchers and others engaged in science and technology who are 40 years old or younger from all countries and regions are invited.
  - Individuals cannot apply directly to the program. Participants must be nominated by their home institution in coordination with a host organization in Japan.

Himalayan Tricarinate Hill Turtle

News: The Himalayan Tricarinate Hill Turtle was recently discovered in Chhattisgarh's Udanti Sitanadi Tiger Reserve, indicating improving ecological conditions and intact forest habitats.

About Himalayan Tricarinate Hill Turtle

Source – Conservation Optimism

- **The tricarinate hill turtle or three-keeled land turtle (Melanochelys tricarinata) is a small terrestrial turtle species belonging to the family Geoemydidae.**
- **Habitat: The turtle mainly inhabits temperate forests, riverine grasslands, foothills of the Himalayas, moist deciduous forests, and wet evergreen forests with perennial water sources.**
- **Distribution: The species is found across the narrow sub-Himalayan belt covering northeastern India, southern Nepal, southern Bhutan, and northern Bangladesh.**
- **Characteristics:**
    - **Body Features: The species has a highly domed carapace, a small olive-to-dark coloured head with a narrow snout, and robust scaly limbs adapted for terrestrial movement.**
    - **Appearance: The turtle derives its name from the three distinct keels present on its shell.**
    - **Behaviour: It is a shy, secretive, and primarily terrestrial species that is rarely spotted even within its normal habitat range.**
    - **Size: It is a small to medium-sized turtle with a carapace length reaching up to 174 mm.**
    - **Reproduction: The species lays eggs at a time during winter months, and the incubation period ranges from 60 to 72 days.**
    - **Omnivorous. Their diet consists of earthworms, insects, mushrooms, and various plant materials.**
- **Major Threats: The turtle depends heavily on dense forests, intact microhabitats, and minimal human disturbance, making habitat disturbance a serious concern for its survival.**
- **Conservation Status**
    - **IUCN Red List: Endangered**

India-Middle East-Europe Economic Corridor (IMEC)

News: India and Italy agreed to further develop the India-Middle East-Europe Economic Corridor (IMEC) to strengthen trade, investment and supply-chain resilience.

About India-Middle East-Europe Economic Corridor (IMEC)

Source – IMEC International

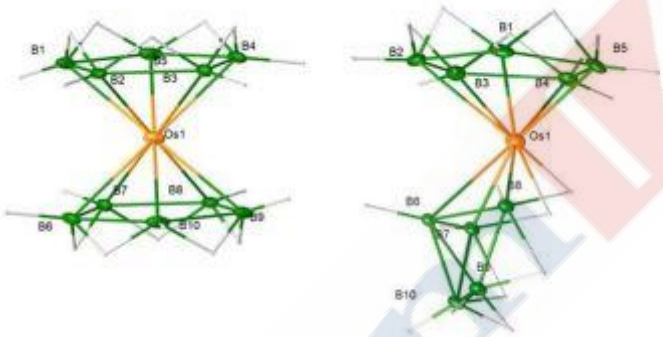
- **The India-Middle East-Europe Economic Corridor (IMEC) is a visionary, multinational infrastructure project that aims to revolutionize global trade and connectivity.**
- **Announced in: It was officially announced on September 9, 2023, during the G20 Summit in New Delhi.**
- **Route: The economic corridor consists of an infrastructure route from India to Europe through the United Arab Emirates, Saudi Arabia, Israel, and Greece.**
- **Corridors: The IMEC will comprise of two separate corridors –**
  - **The East Corridor– connecting India to the Arabian Gulf,**
  - **The Northern Corridor– connecting the Gulf to Europe.**
- **The IMEC corridor will also include an electricity cable, a hydrogen pipeline and a high-speed data cable.**
- **Objective: The corridor will provide reliable and cost-effective cross-border ship to rail transit network to supplement existing maritime routes.**
- **Vision: IMEC is aligned with the global shift towards sustainable infrastructure development, promoting:**
  - **Reduced carbon emissions through energy-efficient logistics.**
  - **Green tech integration across transport and supply chains.**
  - **Inclusive growth by connecting underserved regions.**
- **Benefits: It intends to increase efficiency, reduce costs, secure regional supply chains, increase trade accessibility, enhance economic cooperation, and generate jobs and lower greenhouse gas emission, resulting in a transformative integration of Asia, Europe and the Middle East (West Asia).**

- **Part of: The project, which also forms part of the Partnership for Global Infrastructure and Investment (PGII), may also serve as a counter to China's economic influence in the Eurasian region.**

Ferrocene

News: Researchers at IIT Madras and IISc Bengaluru synthesized a new carbon-free molecule that copies ferrocene's unusual sandwich structure.

About Ferrocene



Source – TH

- **Ferrocene: It is an orange crystalline organometallic compound that has a unique sandwich-like molecular structure.**
- **Formula: Ferrocene has the chemical formula $Fe(C_5H_5)_2$.**
- **Structure: Ferrocene consists of an iron atom sandwiched between two flat carbon ringed-molecules, which gives it a unique structure.**
- **Appearance: Ferrocene occurs as highly stable orange crystals with a melting point of 174°C (345°F).**
- **Discovery: Ferrocene was first prepared in 1951 by the reaction of sodium cyclopentadienide with iron(+2) chloride.**
- **Key Properties:**
  - **Chemical Behaviour: Ferrocene behaves like benzene and other aromatic compounds because it undergoes substitution reactions.**
  - **Solubility: Ferrocene has good solubility in many organic solvents, but it is insoluble in water.**
  - **Structural Stability: Its sandwich-like structure has attracted major scientific interest for decades because of its stability.**
  - **Scientific Importance: The discovery of ferrocene launched the field of organometallic chemistry.**
- **Key Applications:**

- Medicines and Batteries: Ferrocene is used in medicines and battery-related technologies.
- Advanced Materials and Electronics: It is used in advanced materials research and electronics.

- Significance: Ferrocene is scientifically important because its unique structure inspired decades of research into similar stable molecules.

National Sports Governance Board Rules and National Sports Tribunal Rules, 2026

News: The Union Government notified the National Sports Governance Board Rules, 2026 and National Sports Tribunal Rules, 2026 under the National Sports Governance Act, 2025.

About National Sports Governance Board Rules and National Sports Tribunal Rules, 2026

Source – DH

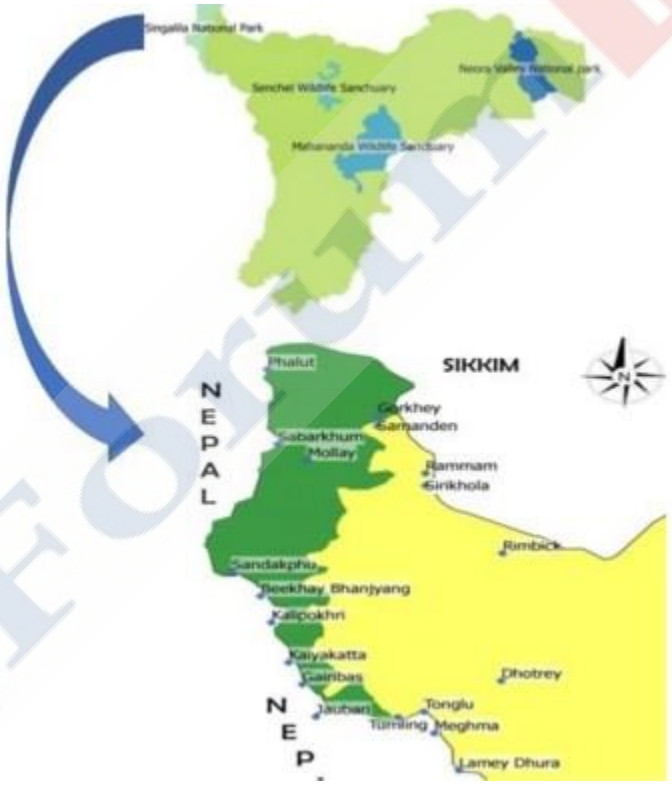
- These Rules provide the framework for sports governance, recognition, dispute resolution, and administrative functioning in the country.
- Notified Under: The Rules were notified under the provisions of the National Sports Governance Act, 2025.
- Key Features of The National Sports Governance Board Rules, 2026:
  - Composition of Board: The National Sports Board shall consist of a Chairperson and two Members appointed by the Central Government.
  - Selection Process: The appointments shall be made from a panel of names recommended by the Search-cum-Selection Committee constituted under the National Sports Board (Search-cum-Selection Committee) Rules, 2026.
  - Administrative Provisions: The Rules provide for the term of office, salary, allowances, service conditions, powers and functions of the Board.
  - Recognition Role: The National Sports Board will function as the central authority for granting recognition to National Sports Bodies.
  - Compliance Function: The Board will ensure compliance with governance, financial and ethical standards by National Sports Bodies.
- Key Features of The National Sports Tribunal Rules, 2026:

- Tribunal Administration: The Rules define appointment, re-appointment, tenure, salary, allowances and powers of the Tribunal.
- Digital Measures: The Rules provide for a dedicated portal, virtual hearings, publication of orders and digital maintenance of records.
- Dispute Resolution Role: The Tribunal will function as a dedicated adjudicatory body for sports-related disputes.
- Single-Window Mechanism: The Tribunal aims to ensure faster, simpler, accessible and cost-efficient disposal of disputes.

Singalila National Park

News: Communities in Darjeeling predict the arrival of rains with a bird call of Bay Woodpecker found in dense forest of Singalila National Park.

About Singalila National Park



Source: Researchgate

- Location: Singalila National Park is located on the Singalila Ridge at an altitude of more than 7000 feet above mean sea level, in the Darjeeling district of West Bengal.
  - The Singalila Ridge runs from north to south and separates the Himalayan region of West Bengal from the other Eastern Himalayan mountain ranges on the west side.

    - The park is located in the Eastern Himalayas.
- Boundary: It is bordered by the state of Sikkim in the north and Nepal in the west.
- Establishment: It was declared a Wildlife Sanctuary in 1986, and was made a National Park in 1992.
    - The region had long been used as the trekking route from Manebhanjhyang to Sandakphu (the highest peak of West Bengal) and Phalut.
- Peak: The two highest peaks of West Bengal, Sandakphu (3630 m) and Phalut (3600 m) are located on the ridge and inside the park.
- Associated rivers: River Rammam and River Sirikhola flow through the park.
- Flora: Thick bamboo, oak, magnolia and rhododendron forest between 2000 and 3600 m cover the Singalila Ridge.
    - There are two seasons of wildflower bloom – one in spring when the Rhododendrons bloom, and another in the post-monsoon season, when the lower forests bloom (Primula, Geranium, Saxifraga , Bistort, Senecio, Cotoneaster and numerous orchids).
    - Sandakphu is known as the "mountain of poisonous plants" due to the large concentration of Himalayan Cobra Lilies (Arisaema), which grow there.
- Fauna: The park has a number of small mammals, including the Red Panda, Leopard Cat, Barking Deer, Yellow-throated Marten, Wild Boar, Pangolin and the Pika.
    - Larger mammals include the Himalayan Black Bear, Leopard, Clouded Leopard, Serow and the Takin. Tigers occasionally wander into the area.
    - The park is also on the flyway of many migratory birds.
    - The endangered Himalayan Newt frequents the region, and congregates around the lakes of Jore Pokhri, Sukhia Pokhri and nearby lakes.

Bay Woodpecker or Blythipicus pyrrhotis

News: The bay woodpecker gained attention through research linking its call with rainfall patterns and healthy forests in Darjeeling.

About Bay Woodpecker or Blythipicus pyrrhotis

Source – eBird

- The Bay Woodpecker (Blythipicus pyrrhotis) is a medium-sized woodpecker species belonging to the Picidae family.
- Ecological role: It acts as an ecological indicator of healthy and functioning forest ecosystems.
    - In rural Darjeeling, communities predict the arrival of rains with the call of this bird.
- Habitat: The bird lives in subtropical or tropical moist lowland forests, moist montane forests, evergreen forests, mixed deciduous forests, and heavily wooded ravines with dense growth.
- Distribution: The species is found in Bangladesh, Bhutan, Cambodia, China, Hong Kong, India, Laos, Malaysia, Myanmar, Nepal, Thailand, and Vietnam.
- Characteristics:
    - Appearance: The bird has a rich reddish-chestnut brown body with black banding on the wings and tail, a paler brown head, and a long bright yellow bill.
    - Size and weight: It measures 26.5–30 cm in length and weighs around 126–170 g.
    - Sexual Dimorphism: Only the male has a red patch on the back of the head, while the female has a paler head and a shorter bill.
    - Vocalization: The bird gives a loud descending call resembling falling laughter and also produces a long dry rattle for contact between mates.
    - Diet: Its diet mainly includes ants, termites, wood-boring beetles, and occasionally berries.
- Conservation Status
    - IUCN Red List: Least Concern (LC)

2026 Taipei Capital Cup WorldSkills Invitational Tournament and 48th WorldSkills Shanghai 2026

News: Minister of State (Independent Charge) for Skill Development and Entrepreneurship, and Minister of State for Education, Government of India, Shri Jayant Chaudhary sent off the Indian contingent participating in 2026 Taipei Capital Cup WorldSkills Invitational Tournament.

About 2026 Taipei Capital Cup WorldSkills Invitational Tournament

Source: PIB

- **It is regarded as an important international platform for vocational excellence and technical innovation.**
- **Organised at: It is being held in Taipei, Taiwan, from 26–28 May 2026.**
- **Participation: The five-member Indian contingent will compete with participants from around 15 countries in the tournament**
    - **The contingent comprises gold medal winners from the IndiaSkills National Competition 2025–26, along with candidates selected through the wildcard entry process.**
- **It will promote global skills development, technical excellence, international collaboration, and workforce innovation and will also help participants gain real-world competitive experience at an international level.**
- **Nodal ministry involved from India: Ministry for Skill Development and Entrepreneurship**
- **Features:**
    - **India will compete in five skill categories at the 2026 Taipei Capital Cup WorldSkills Competition.**
        - **Arjun Sumathi Vijayabashkar will be representing the country in Mobile Applications Development**
        - **Mohamed Mafaz Poonaikannan Rabi Ahamed in Software Applications Development**
        - **Muskan in Painting & Decorating**
        - **Md Seraj in Automobile Technology, and**
        - **Suresh Kumar Ganesan Meena in Digital Construction.**
    - **This year's edition of the competition features 10 skill categories spanning critical sectors linked to smart manufacturing and digital transformation, including**

Industrial Mechanics, IT Network Systems Administration, Mobile Applications Development, Industry 4.0, Automobile Technology, and Digital Construction (BIM).

- Significance: India's participation in the tournament marks an important step in the country's preparation journey towards the 48th WorldSkills Shanghai 2026.
    - The competition will provide Team India with early exposure to international standards and act as a crucial warm-up platform ahead of the global competition.

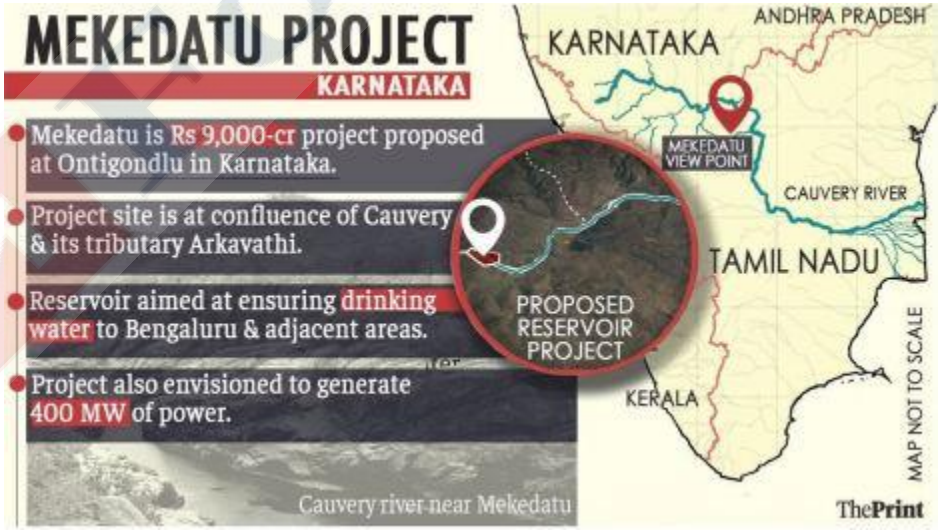
About 48th WorldSkills Shanghai 2026

- The WorldSkills Competition is the world's biggest international skills competition, bringing together young people, industry, education and government leaders from around the world to advance Technical and Vocational Education and Training.
- The 48th WorldSkills Competition will take place 22-27 September 2026.
- Hosted city: It is hosted in Shanghai, China.
- Hosted by: It is being hosted by the Ministry of Human Resources and Social Security of the People's Republic of China, the Shanghai Municipal People's Government, and WorldSkills International.
- Frequency: It is held every two years.
- Expected Participation: An estimated 1,400 Competitors from 73 countries and regions will compete in 64 skills, including seven new emerging occupations.
- Skills range from Robotics, Cloud Computing, and Cybersecurity to Aircraft Maintenance, Cooking, and Welding.

Mekedatu Project and Arkavathi River

News: The Supreme Court dismissed Tamil Nadu's review petition against the Mekedatu project and rejected its request for open court hearing.

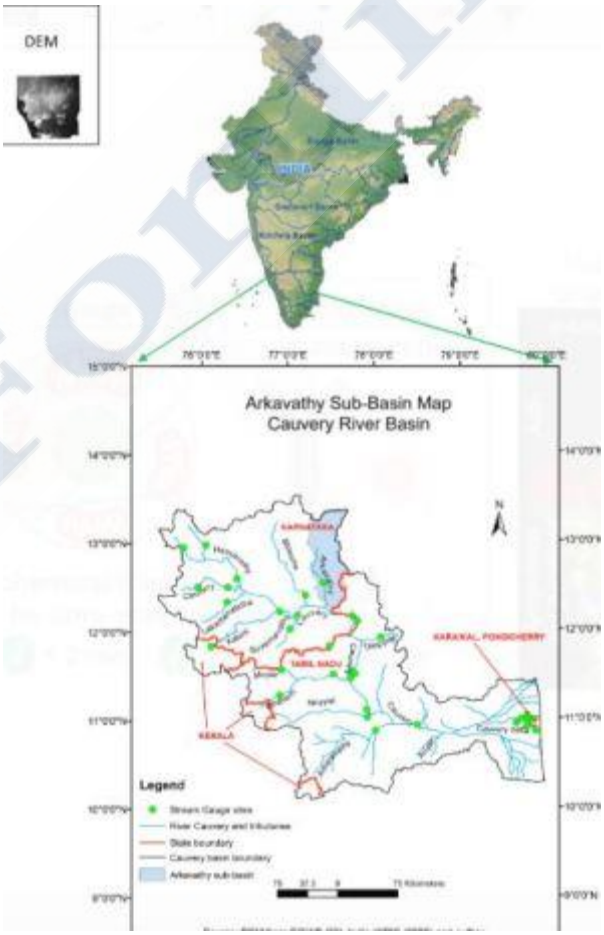
About Mekedatu Project



Source – The Print

- **The Mekedatu Project is a multi-purpose balancing reservoir and drinking water project initiated by the Government of Karnataka.**
- **Location: The project is located near Kanakapura in Ramanagara district, Karnataka, about 90 km from Bengaluru and near the Tamil Nadu border.**
- **River Confluence: The project site is located at the confluence of the Cauvery River and its tributary Arkavathi River.**
- **Naming: Mekedatu means "goat's leap" and refers to a deep gorge situated at the river confluence.**
- **Project Specifications:**
    - **The project includes a 99-m-high and 735-m-long concrete gravity dam, an underground powerhouse, and a water conductor system.**
    - **The reservoir will store about 66 tmcft of water and generate 400 MWhydroelectric power.**
- **Objective: The project aims to supply about 4.75 TMC drinking water to Bengaluru and nearby areas while also generating power.**
- **Major Issues: Tamil Nadu opposes the project because it fears reduction in downstream Cauvery water flow, which may affect agriculture and drinking water supply.**
- **Significance: The project is important for Bengaluru's drinking water needs and hydroelectric power generation.**

About Arkavathi River



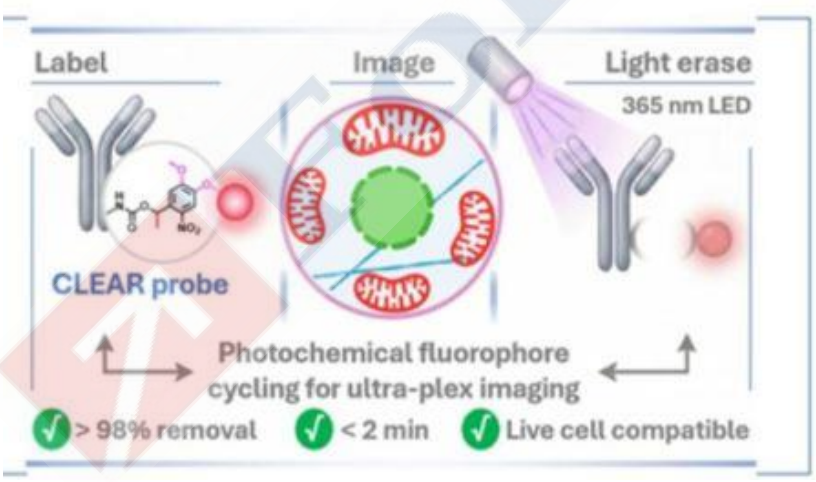
Source – ResearchGate

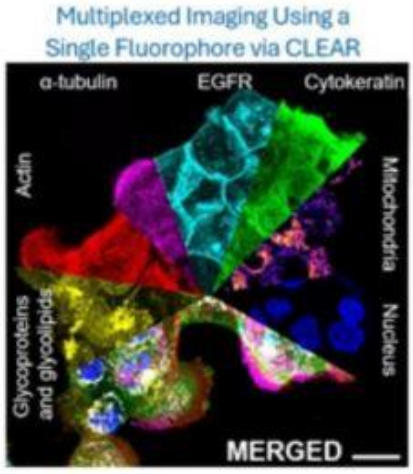
- **The Arkavathi River is an important mountain river in Karnataka and a major tributary of the Kaveri River.**
- **Origin: The river originates from Nandi Hills in Chikkaballapura district.**
- **Course: The river flows southward through Bengaluru Rural, Ramanagara, and Mandya districts before joining the Kaveri River near Sangama around 34 km south of Kanakapura.**
- **Length: The total length of the river is about 190 km.**
- **Confluence (Mouth): The river merges with the Kaveri River at Sangama near Mekedatu.**
- **Major Tributaries: The tributaries include Kumudavathi, Suvarnamukhi, Vrishabhavathi, Antharamukhi, and Devamukhi.**
- **Key Features:**
    - **River Basin: Nearly one-third of Bengaluru city lies within its 4,150 sq. km. river basin.**
    - **Chunchi Falls: The river forms Chunchi Falls near Haroshivanahalli during its course.**
- **Major Reservoirs: The river feeds the Hesaraghatta Reservoir and Thippagondanahalli Reservoir, which supply drinking water to Bangalore.**

Cleavable Light-Erased Antibody Reporter (CLEAR) Platform

News: Researchers at the Jawaharlal Nehru Centre for Advanced Scientific Research developed the CLEAR platform for high-resolution protein mapping.

About Cleavable Light-Erased Antibody Reporter (CLEAR) Platform





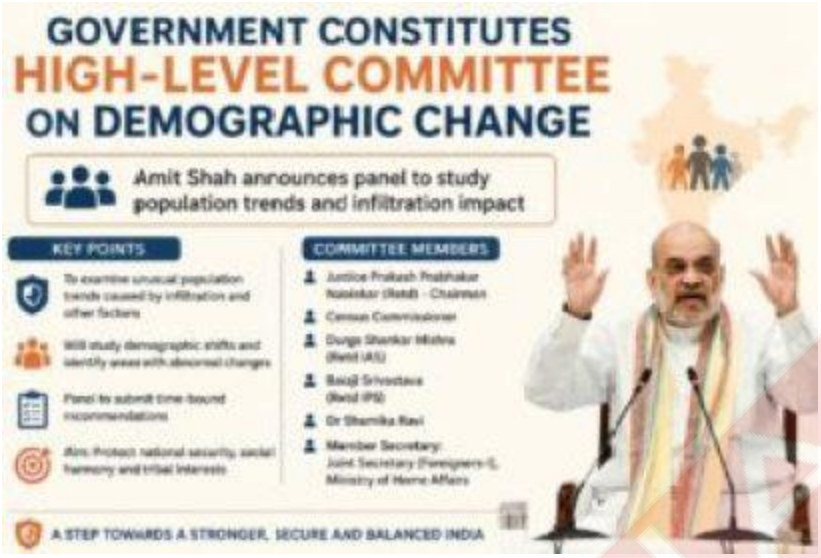
Source – DST

- **Cleavable Light-Erased Antibody Reporter (CLEAR): It is a novel spatial protein imaging platform that enables visualization and mapping of a large number of proteins within the same sample.**
- **Developed by: The platform was developed by researchers at Jawaharlal Nehru Centre for Advanced Scientific Research, an autonomous institute of the Department of Science and Technology (DST).**
- **Working Mechanism:**
    - **Targeted Labelling: Scientists use CLEAR probes containing antibodies linked with fluorescent tags through a light-sensitive chemical bond to label proteins.**
    - **Image Capture: The labelled proteins are imaged under a microscope within the same spectral window.**
    - **Photolytic Erasing: A gentle pulse of 365 nm LED light removes the fluorescent signal by cleaving the chemical bond without damaging the sample.**
    - **Cyclic Rewriting: A new set of proteins is labelled and imaged repeatedly in the same optical window to generate detailed protein maps.**
    - **Detailed Mapping: Repeated imaging cycles create information-rich maps across cells and tissue sections.**
- **Key Features of CLEAR:**
    - **High-Plex Multiplexing: It enables visualization of a very large number of proteins within a single biological sample.**
    - **Live-Cell Compatibility: The gentle light-erasing process preserves delicate biological samples, including live cells.**
    - **High Spatial Resolution: It captures the precise spatial arrangement of proteins within tissues.**
    - **Speed and Simplified Imaging: The platform repeatedly uses a single fluorescent channel and reduces dependence on complex multi-laser imaging systems.**
    - **Chalkboard-Like Imaging: The platform repeatedly erases and rewrites fluorescent signals like a chalkboard using a single fluorophore.**
- **Significance: CLEAR can improve disease diagnosis, biomedical research, and precision medicine through comprehensive high-resolution protein mapping.**

High-Level Committee on Demographic Change

News: The Government of India constituted a High-Level Committee to study demographic changes caused by illegal immigration and other abnormal reasons.

About High-Level Committee on Demographic Change



Source – Bharat Express

- **The High-Level Committee on Demographic Change is a government committee formed to scientifically study demographic changes in India.**
- **Nodal Ministry: Ministry of Home Affairs (MoHA)**
- **Aim: The Committee aims to study the causes and consequences of demographic changes arising from illegal immigration and other abnormal reasons and recommend suitable measures.**
- **Composition of the Committee:**
    - **Chairman: Justice Prakash Prabhakar Naolekar (Retired Supreme Court Judge)**
    - **Members:**
        - **The Census Commissioner of India**
        - **Shri Durga Shanker Mishra (Retired IAS officer)**
        - **Shri Balaji Srivastava (Retired IPS officer)**
        - **Dr. Shamika Ravi (Eminent Economist)**
    - **Member Secretary: The Joint Secretary (Foreigners-I), Ministry of Home Affairs, will be the Member Secretary.**
- **Timeline: The Committee will submit its report within one year.**
    - **The Ministry of Home Affairs may extend its tenure by up to six months if required.**
- **Key Mandates & Terms of Reference (ToR):**
    - **Assessment of Challenges: The Committee will comprehensively deliberate upon challenges arising from demographic changes, including illegal immigration.**
    - **Study of Causes and Factors: The Committee will study causes and identify underlying factors behind demographic changes, including cross-border activities, economic opportunities, illegal immigration, abnormal settlement patterns, and orchestrated migration.**
    - **Population Analysis: The Committee will analyse structural population changes among religious and social communities where trends differ significantly.**

- Mechanism for Illegal Immigrants: The Committee will recommend a legal, fair, and time-bound mechanism for identification, detention, and deportation of illegal immigrants.
- Institutional Strengthening: The Committee will suggest mechanisms to strengthen border management, population stabilization, and identification systems.
- Centre-State Coordination: The Committee will propose a policy framework for better coordination between the Central and State Governments.
- Additional Measures: The Committee may recommend any other suitable measures to address demographic changes and illegal immigration.

Medical Innovations Patent Mitra: I2I Connect

News: ICMR, under the Department of Health Research, Ministry of Health and Family Welfare, successfully organized "Medical Innovations Patent Mitra: Innovators-to-Industry (I2I) Connect.

About Medical Innovations Patent Mitra: I2I Connect

Source: NDTV

- It is India's largest biomedical and technology transfer facilitation event held at the Manekshaw Centre, New Delhi.
- Organized by: It has been organized by Indian Council of Medical Research (ICMR), under the Department of Health Research, Ministry of Health and Family Welfare.
- It has establishment of one of the country's first structured platforms dedicated to biomedical innovation showcasing and technology transfer under the ICMR Medical Innovation Patent Mitra initiative.
- Aim: It aims to bridge the gap between laboratory research and commercial healthcare products.
  - It also aims to support India's goal of becoming more self-reliant in healthcare technologies.
- Focus: It focuses on turning Indian medical research into practical healthcare solutions that can reach hospitals, laboratories, and patients faster.
- Highlights of the Event:

- The Indian Biomedical Patent Landscape Report and the Technology Compendium were launched during the event.
- A key highlight was the transfer of 41 public health technologies from Indian Council of Medical Research (ICMR) institutes and innovators to industry partners for further development, manufacturing, and commercialization.
    - These technologies covered advanced diagnostics, vaccines, medical devices, and biomedical solutions aimed at addressing major public health challenges.
    - Transferred technologies: The transferred technologies included glycoconjugate and recombinant vaccines for Typhoid and Paratyphoid, along with diagnostic technologies for diseases such as Japanese Encephalitis, Tuberculosis, and Mpox.
- First, well-characterized biomaterials, including inactivated KFD and Chandipura viruses, were also handed over to industry partners, further strengthening India's biomedical research and manufacturing ecosystem.
- The event also featured over 100 technologies in diagnostics, therapeutics, and medical devices developed by ICMR institutes, researchers, and startups, while enabling direct interaction between innovators and industry stakeholders.

About Medical Innovation Patent Mitra Initiative

- Medical Innovations Patent Mitra initiative is a centralized, expert-driven platform that supports Patent filing, prosecution, maintenance and transfer of technologies for societal impact.
- Initiated by: It has been launched by the Indian Council of Medical Research (ICMR).
    - The initiative was guided by NITI Aayog in partnership with the Department of Pharmaceuticals (DoP) and supported by the Department for Promotion of Industry and Internal Trade (DPIIT).
- Aim: The initiative aims to translate indigenous biomedical research into accessible, real-world healthcare solutions through strong industry partnerships.
- This initiative provides handholding support to innovators for quality patent filing, strategic patent management, and technology transfer.
- It ensures that innovations developed through ICMR intramural and extramural research, medical institutions, DPIIT-registered startups, and institute-led biomedical innovators are effectively utilized and commercialized.

Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme

News: Joint Secretary of Ministry of Food Processing Industries, addressed a media interaction regarding the implementation and achievements of the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme.

About Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme

Source: PIB

- **It is a centrally sponsored scheme launched by the Ministry of Food Processing Industries(MOFPI).**
- **Nodal Ministry: It was launched in 2020 as part of the Aatmanirbhar Bharat Abhiyan.**
- **Budget outlay: It has a budget outlay of Rs. 10,000 crore.**
- **Duration: It has been approved for implementation from 2020-21 to 2024-25 and has been extended till September 2026.**
- **Aim: It aims to**
    - **Modernize and enhance the competitiveness of the existing individual micro enterprises and ensure their transition to formal sector.**
    - **Provide support to Farmer Producer Organizations, Self Help Groups, and Producers Cooperatives along their entire value chain.**
- **Funding Pattern: The expenditure under the PM-FME scheme would be shared in 60:40 ratio between Central and State Governments, in 90:10 ratio with North Eastern and Himalayan States, 60:40 ratio with UTs with legislature and 100% by Centre for other UTs.**
- **Key Components of PMFME Scheme**
    - **Credit-Linked Subsidy for Individual Micro Food Processing Enterprises: A 35% subsidy (up to ₹10 lakh) is provided to individuals for setting up or upgrading micro food processing units.**
    - **Credit-Linked Subsidy for Common Infrastructure: Farmer Producer Organisations (FPOs), Farmer Producer Companies (FPCs), Self Help Groups (SHGs), and similar entities are eligible for a 35% credit-linked subsidy (up to ₹3 crore) to establish or upgrade common infrastructure facilities.**
    - **Seed Capital Assistance: Financial support of ₹40,000 per SHG member engaged in food processing is available for working capital requirements and the purchase of small tools and equipment.**

- Capacity Building: Structured training programs are offered, including Entrepreneurship Development Programme (EDP) training for both individual and group applicants and specialised training for SHG members receiving seed capital assistance.
- Incubation Centres: Support is provided for establishing and strengthening Common Incubation Centres that serve as local hubs for food processing, training, testing, and entrepreneurship development.
- Branding & Marketing Support: A 50% financial grant is available for branding and marketing initiatives for groups such as FPOs, SHGs, cooperatives, regional/state-level SPVs, and state agencies.
    - Assistance also includes trademark registration, product standardisation, packaging development, e-commerce integration, and trade promotion for ODOP brands.
- Handholding Support: Dedicated resource persons at the state and district levels assist applicants throughout the formalisation process.

- One District One Product (ODOP): The scheme follows the One District One Product (ODOP) approach to scale up procurement, services, and marketing.
    - States identify products, with priority on perishables such as fruits, vegetables, spices, fisheries, and traditional foods like honey and turmeric.
    - Support is focused on processing, storage, branding, and reducing wastage.
    - Capital investment is prioritised for ODOP units, and new enterprises are eligible only for ODOP products.
- Coverage: Under the scheme, 2,00,000 micro food processing units will be directly assisted with credit-linked subsidies.
    - Adequate supportive common infrastructure and institutional architecture will be supported to accelerate the growth of the sector.
- Benefits: The program has four broad components addressing the needs of the sector:
    - Support to individuals and groups of micro-enterprises.
    - Branding and Marketing support.
    - Support for strengthening institutions.
    - Setting up a robust project management framework.

Gynacantha khasiaca

News: Gynacantha khasiaca, a rare dragonfly, has resurfaced in Arunachal Pradesh's Changlang district, about 600 km east of where it was first recorded 110 years ago.

About Gynacantha khasiaca

Source – TH

- **It is commonly known as the long-tailed duskhawker.**
- **Family: Aeshnidae**
- **Order: Odonata (dragonflies & damselflies)**
- **Ecological role: It is crucial component of freshwater ecosystems, as predators and prey in the aquatic food web.**
- **Habitat: It is mostly found around the vicinity of freshwater habitats like rivers, streams, marshes, lakes and even small pools and rice fields.**
- **Distribution: Globally, it is found in north-east India, Nepal and Bangladesh.**
    - **In India, beyond Arunachal Pradesh, the long-tailed duskhawker has been documented in Assam, Maharashtra, Meghalaya, Uttarakhand, and West Bengal.**
    - **Rediscovery: It is discovered in Arunachal Pradesh, after a gap of 110 years from the Namdapha National Park and Tiger Reserve.**
    - **It was last described from the erstwhile Abor Hills in 1914.**
- **Characteristics**
    - **This insect has two compound eyes, each with thousands of tiny lenses and photoreceptor clusters.**
    - **Due to this, it enjoys a near-360° while staying still in the air.**
    - **It has a black "T"-shaped mark on its forehead.**
    - **Its thorax is bright green with dark stripes, its wings are transparent with an amber tint, and it possesses a characteristically long, black-tipped abdomen.**
- **Conservation status**
    - **IUCN Red List: Data Deficient**

India's First Indigenous Hydrogen Train and Hydrogen Fuel Cell (HFC)

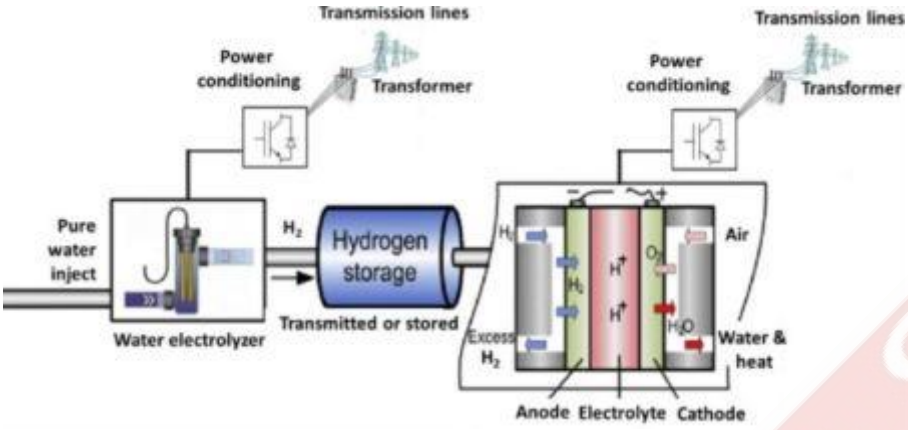
News: In a major step towards green and sustainable transportation, Indian Railways has approved the introduction of a 10-car Hydrogen Fuel Cell-based trainset on the dedicated Jind-Sonipat section of Northern Railway.

About India's First Indigenous Hydrogen Train

Source – DD India

- **Indian Railways has approved the introduction of a 10-car Hydrogen Fuel Cell-based trainset.**
- **Dedicated route: The train will travel on the dedicated Jind-Sonipat section (Haryana) of Northern Railway.**
- **Agencies involved**
    - **Developed by: It is developed by Chennai-based Integral Coach Factory (ICF).**
    - **The train is designed as per specifications framed by the Research, Design & Standards Organization (RDSO).**
    - **The Petroleum and Explosives Safety Organisation (PESO) has granted the required license for storage and dispensing of compressed hydrogen gas.**
- **Indian Railways under "Hydrogen for Heritage" envisages deploying 35 hydrogen-powered trains on heritage and hill routes across the country.**
- **Prominent features of Hydrogen Train-set are as below:**
    - **Designed and Developed in India demonstrating Indian Railways' commitment to Atmanirbhar Bharat.**
    - **Presently, it is the world's longest (10 coaches) and most powerful (2400 kW) Hydrogen Train-set on Broad Gauge platform.**
    - **The train-set comprises of two Driving Power Cars (DPCs) of 1200 kW each, totaling 2400 kW along with eight passenger cars.**
    - **Zero CO_2 emissions; only emission is water vapour.**
    - **The trainset will operate at a maximum speed of 75 kmph.**
- **With this initiative, India joins a select group of countries such as Germany, Japan, China and the United States that are exploring the use of hydrogen for cleaner rail transportation.**

About Hydrogen Fuel Cell (HFC)



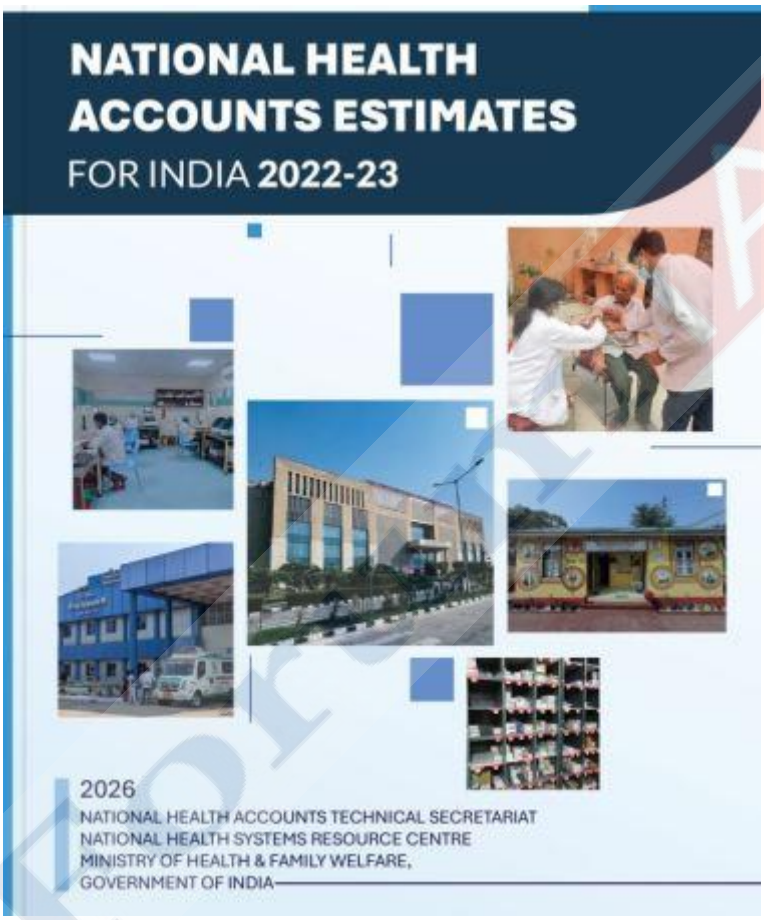
Source – ScienceDirect

- **Hydrogen fuel cell technology generates electricity through a chemical reaction using hydrogen, with water vapour as the only emission, making it a clean alternative to conventional fossil fuel-based traction systems.**
- **Components: The primary components of an HFC are –**
  - **Membrane Electrode Assembly (MEA)**
  - **Bipolar plates**
- **Membrane Electrode Assembly (MEA): The MEA is where the electrochemical reaction takes place.**
  - **It consists of a Proton Exchange Membrane (PEM) placed between two catalyst layers – anode (where hydrogen gas enters the fuel cell) and cathode (where oxygen from the air enters).**
  - **They are surrounded by the Gas Diffusion Layers that help distribute reactant gases (hydrogen and oxygen) and remove byproducts (water and heat).**
  - **The PEM is a specially treated material that looks something like ordinary kitchen plastic wrap.**
  - **It conducts only positively charged ions and blocks the electrons.**
  - **The PEM is the key to the fuel cell technology; it must permit only the necessary ions to pass between the anode and cathode.**
- **Working mechanism**
  - **First, hydrogen fuel (H2) is passed through the anode and is split into protons (H+) and electrons (e-) via oxidation using a catalyst.**
  - **Then the PEM allows only protons to pass through to the cathode and blocks the electrons.**
  - **Electrons flow through an external circuit, generating electricity.**
  - **At the cathode, oxygen (O2) from the air interacts with the catalyst and undergoes reduction.**
  - **Subsequently, Oxygen reacts with the protons that have passed through the membrane and the electrons from the external circuit to produce water (H2O).**

National Health Accounts Estimates for India 2022-23

News: Government expenditure on healthcare has nearly tripled over the last decade to Rs. 3.85 lakh crore in 2022-23, while out-of-pocket spending by households on treatment has declined significantly, according to the National Health Accounts (NHA) estimates released by the Union Health Ministry .

About National Health Accounts Estimates for India 2022-23



Source – MoHFW

- **Released by: Ministry of Health and Family Welfare (MoHFW)**
- **Prepared by: The NHA 2022-23 is the 10th report on health expenditure estimates prepared by the National Health Accounts Technical Secretariat (NHATS), National Health Systems Resource Centre, Ministry of Health and Family Welfare, using the System of Health Accounts (2011) framework.**
- **Key Highlights**
    - **Health expenditure's share in general government expenditure has increased from 78% to 4.89% between 2013-14 and 2022-23.**
    - **Government Health Expenditure (GHE)**

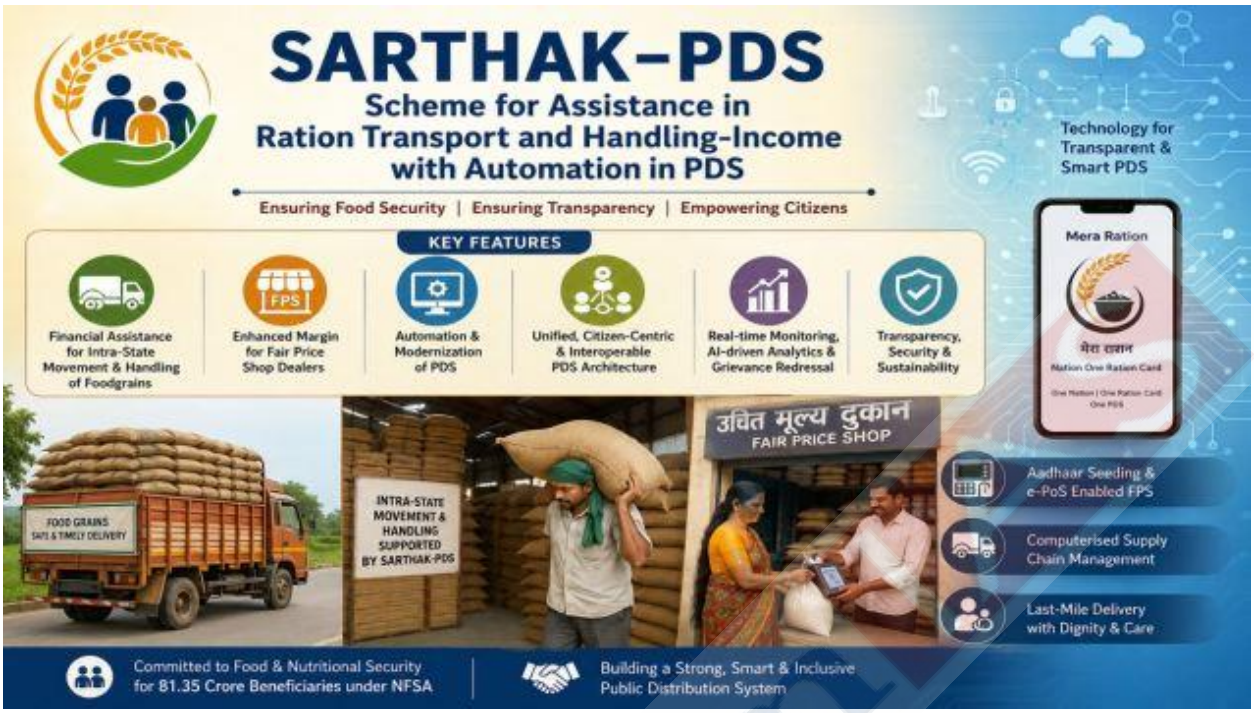
- Increases by threefold from ₹30 Lakh Crores to ₹3.85 Lakh Crores between 2013-14 and 2022-23
- An increase in the share of GHE in the country's Gross Domestic Product (GDP).
- GHE as a share of the country's GDP increased from 15% to 1.43% between 2013-14 and 2022-23.
- Government Health Expenditure as a share of Total Health Expenditure (THE) increases from 28.6% to 43.7% between 2013-14 and 2022-23.
- In per capita terms, GHE has increased nearly 7 times, from Rs. 1,042 to Rs. 2,786 between 2013-14 and 2022-23.

- Out-of-Pocket Expenditure (OOPE): The out-of-pocket expenditure (OOPE) share in total health expenditure (THE) has declined by 21%, from 2013-14 till date.
  - The OOPE as a share of the THE has been calculated as 4% in 2022-23, as against 64.2% in 2013-14.
- Social Security Expenditure (SSE): Inter-temporal comparisons also reveal a positive trend in the growth of social security expenditure.
  - Spending here increased substantially from 6% in 2013-14 to 9.9% in 2022–23.
  - The share of private health insurance has also increased, from 4% to 9.2%, clearly indicating improved health-seeking behaviour due to awareness.
- Expenditure On Primary Health Care by Government has more than doubled from ₹0.5 Lakh Crores to ₹1.4 Lakh Crores between 2013-14 and 2022-23.
- During COVID Crisis: To address the emergency COVID pandemic situation, the government increased the health expenditure significantly to 1.84% of GDP in 2021-22 towards managing the pandemic situation given these additional spending by the government as a one-time measure, OOPE as a percentage of total health expenditure during this period also declined to 39.4%.

SARTHAK PDS Scheme

News: The Cabinet Committee on Economic Affairs (CCEA) has approved the continuation of the "Scheme for Assistance in Ration Transport and Handling-Income with Automation in PDS" (SARTHAK PDS) as an umbrella scheme, in the 16th Finance Commission cycle award period, with an outlay of Rs. 25,530 crore as Central share.

About SARTHAK PDS Scheme



Source – DD News

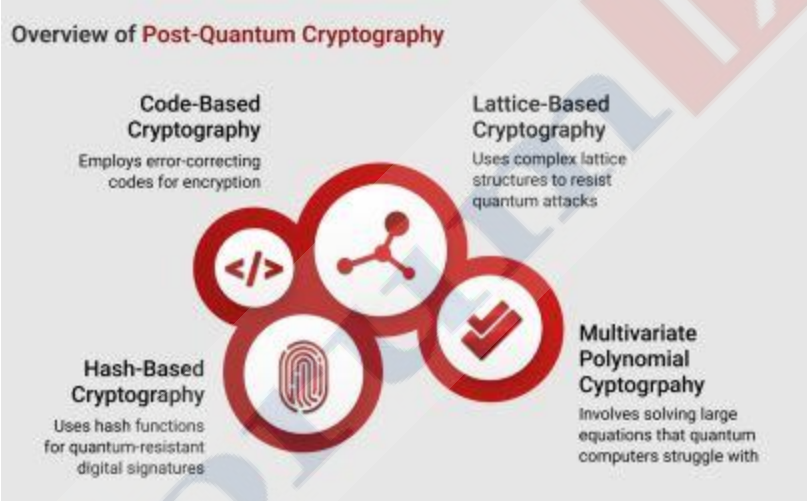
- **Full name: SARTHAK PDS stands for – "Scheme for Assistance in Ration Transport and Handling-Income with Automation in PDS".**
- **The SARTHAK-PDS Scheme is an umbrella scheme approved by the Union Cabinet to modernize and digitize India's Public Distribution System (PDS).**
- **Aim: The Scheme aims to provide –**
    - **Assured financial support for intra-State movement, handling and FPS dealer's margin, and**
    - **A unified, citizen-centric, intelligent and interoperable PDS architecture that ensures last-mile service delivery, minimizes leakages and strengthens the nation's commitment to food security under NFSA.**
- **Objectives: SARTHAK-PDS Scheme seeks to modernize, integrate and intelligently optimize PDS operations through advanced technologies such as Artificial Intelligence (AI), Machine Learning (ML), Natural Language Processing (NLP) and Blockchain, by creating standardized architectures and unified databases for real-time monitoring, AI-driven grievance and analytics systems.**
- **Funding and timeline: The Centre will spend ₹25,530 crore over the next five years as its share for the implementation of the scheme during the 16th Finance Commission cycle, with the programme set to continue until March 31, 2031.**
- **Integration: The SARTHAK-PDS scheme integrates two existing initiatives with the objective of strengthening implementation of the National Food Security Act –**
    - **"Assistance to State Agencies for intra-State movement of foodgrains and FPS dealers' margin under NFSA" and the "Scheme for Modernization and Reforms through Technology in Public Distribution System (SMART PDS)" –**

- **Revised norms: The Scheme will have revised norms of Central assistance for meeting expenditure incurred by States/UTs intra-state movement & handling of foodgrains and FPS dealers' margin and continuation of the existing funding pattern of Central Assistance.**
- **Earlier initiatives in PDS governance: Government has implemented multiple digitization initiatives such as End-to-End Computerization of TPDS, Integrated Management of PDS (IM-PDS) and SMART PDS, along with citizen-facing applications like Mera Ration, Anna Mitra, Rightful Targeting Dashboard and Anna Sahayata.**

Post-Quantum Cryptography (PQC)

News: A Department of Science & Technology (DST) task force has recommended a phased shift to Post-Quantum Cryptography for protecting sensitive data in critical sectors.

About Post-Quantum Cryptography (PQC)



Source – FutureX

- **Post-Quantum Cryptography (PQC) refers to a new generation of mathematical algorithms designed to protect digital data from being broken by future quantum computers.**
- **Aim: PQC aims to ensure that confidential data remains secure even when quantum computers make current encryption methods obsolete.**
- **Defense Mechanisms: PQC uses quantum-resistant mathematical approaches such as hash-based signatures, multivariate equations, and lattice-based cryptography.**
- **Significance: PQC helps protect sensitive information from future quantum threats, including "harvest now, decrypt later" (HNDL) attacks, and supports a quantum-safe future.**

About National Quantum Mission (NQM)

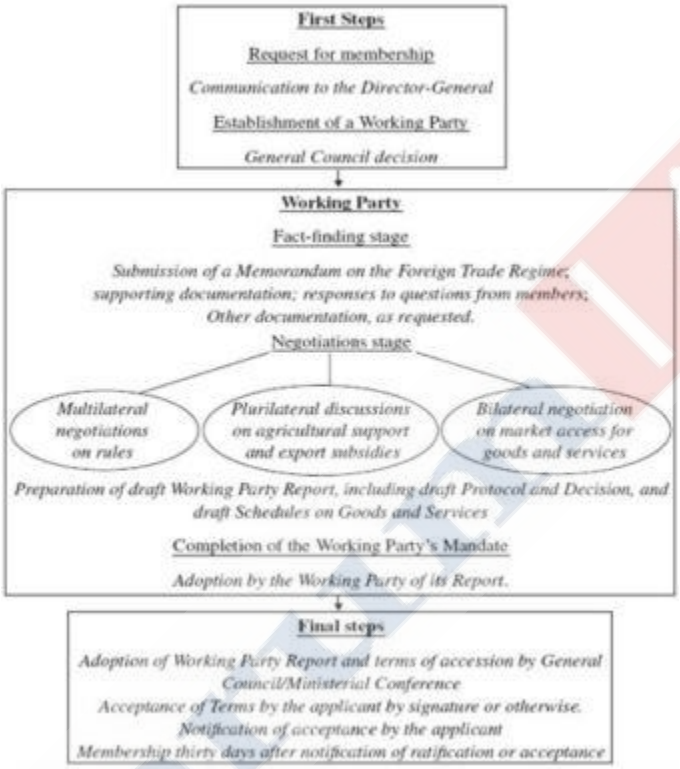
Source – DST

- **The National Quantum Mission (NQM) is one of the nine initiatives under the Prime Minister's Science Technology Innovation Advisory Council (PMSTIAC) and is a flagship quantum technology initiative of the Government of India.**
- **Launched in: The mission was approved by the Union Cabinet in April 2023.**
- **Implemented by: The mission is implemented by the Department of Science & Technology (DST) under the Ministry of Science and Technology.**
- **Timeline: The mission will run from 2023–24 to 2030–31.**
- **Objective: The mission aims to seed, nurture, and scale up research and development in quantum technologies, build indigenous capabilities, accelerate technology-led economic growth, and establish India as a leading global force in quantum technologies.**
- **Key Features:**
    - **Implementation Structure: The mission is implemented through a hub-and-spoke model with four Thematic Hubs hosted at premier institutions across India.**
    - **Quantum Computing: The mission seeks to develop intermediate-scale quantum computers with 50 to 1,000 physical qubits within eight years.**
    - **Quantum Communication: The mission aims to establish satellite-based secure communication over 2,000 km within India and support long-distance Quantum Key Distribution.**
    - **Quantum Sensing and Metrology: The mission focuses on developing high-sensitivity magnetometers and precision atomic clocks for navigation and communication applications.**
    - **Quantum Materials and Devices: The mission promotes fabrication capabilities for quantum materials to support indigenous hardware development.**

Process of WTO Membership

News: India and Ethiopia signed the bilateral accession protocol on 22 May 2026 in Geneva in the context of Ethiopia's WTO accession.

About Process of WTO Membership



Source – WTO

- **Eligibility to Apply: Any state or customs territory having full autonomy in conducting its trade policies can apply for World Trade Organization (WTO) membership under Article XII of the WTO Agreement.**
- **Request for Membership: The accession process begins when the candidate country sends a formal request to the WTO seeking membership.**
- **Formation of Working Party: The General Council establishes a Working Party of WTO members to conduct negotiations with the candidate country.**
    - **Any WTO member can join this group at any stage.**
- **Examination of Trade Regime: The Working Party examines whether the candidate country's trade regime is compatible with WTO rules.**
    - **If required, the country must amend existing laws or adopt new laws and inscribe WTO rules into its national legal system.**
- **Bilateral Market Access Negotiations: At the same time, the applicant negotiates bilaterally with Working Party members to further open its market for goods and services.**

- The agreed outcomes are compiled into goods and services schedules.

- **Final Commitments at Accession:** At accession, tariffs and commitments on goods and services are offered equally to all WTO members under the principle of Most Favoured Nation (MFN).

Mission Queen Pineapple and Queen Pineapple

News: The Government recently launched the "Mission Queen Pineapple" for pineapple cultivation and value chain development in the State of Tripura.

About Mission Queen Pineapple and Queen Pineapple

Source: Guwahati News

About Mission 'Queen Pineapple'

- **It is an initiative for pineapple cultivation and value chain development in Tripura.**
- **Duration: The Mission is designed as a three-year implementation roadmap from the second quarter of fiscal year 2026 through the fourth quarter of fiscal year 2028 for promoting Tripura's Unique Selling Proposition (USP), the GI-tagged Queen Pineapple.**
- **Funding: Its total outlay is ₹236 crore.**
- **Nodal Ministry: Its nodal ministry is the Ministry of Development of North Eastern Region (DoNER).**
- **Aim: It aims to bridge this gap through convergence-led investments and market-oriented interventions that will significantly enhance farmer value realisation.**
- **Objective: It focus to increase merely crop cultivation and enabling farmers to become active players across the entire value chain, from production and aggregation to processing, branding, packaging and exports.**
- **Features:**

- Convergence-led initiative: It builds upon convergence with Schemes and interventions of the Ministries of Agriculture & Farmers Welfare, Food Processing Industries, Commerce, MSME, APEDA, DPIIT, ICAR, CSIR, TRIFED, NERAMAC and the Government of Tripura for establishing an integrated pineapple value-chain ecosystem in the State.
- Infrastructure component: It will establish a "Hub & Spoke" integrated pineapple post-harvest ecosystem comprising one central Hub near Agartala airport and eight spoke collection centers across major pineapple-growing clusters of West Tripura, Khowai and Sepahijala districts.
    - The infrastructure will include grading facilities, cold storage, reefer logistics, solar cold storage, IoT-enabled farm monitoring and digital traceability systems.
- Revival of Pineapple Processing Unit: It also includes the revival of the Nalkata Pineapple Processing Unit through a Viability Gap Funding (VGF) model to support commercial-scale processing and value addition for pineapple-based products.
- Bio-economy strategy: Nearly 60 per cent of the pineapple plant, presently discarded as waste, would be converted into value-added products through Bromelain extraction, Pineapple Leaf Fibre (PALF) processing and GI-branded confectionery units.
    - These interventions would create new opportunities for women SHGs, tribal communities and rural entrepreneurs and will also strengthen the circular economy around pineapple cultivation.

About Queen Pineapple

- The Queen Pineapple is the state fruit of Tripura.
- The variety is believed to have been cultivated over 200 years.
- Climatic condition:
    - It is commercially propagated by suckers in Tripura.
    - Slope Requirement: An area with 30–40% slope is generally selected for cultivation.
    - Soil: Its plants require sandy soil and good drainage to prevent water logging.
    - Temperature: Ideal temperature range of 180°C to 32°C is most favorable for its cultivation
- Features:
    - This pineapple is distinguished from pineapples grown in other parts of Northeast India due to its exceptional sweetness and unique aroma.
    - It has high nutritional value and contains appreciable amounts of potassium and calcium.
    - The favorable climatic conditions for pineapple cultivation eliminate the need for chemical inputs, resulting in produce that is free from pesticide residues.
    - When fully ripe, the fruits develop an attractive orange-yellow colour.
- It has got Geographical Indication (GI) tag in 2015.
    - Tripura, is one of the largest pineapple growing states of India with commercial scale plantations spread across the state's length and breadth.

'Nirbhay Raho' Initiative

News: Ministry of Panchayati Raj conducts Training of Trainers Program under 'Nirbhay Raho' Initiative to strengthen Women's Safety in Rural Areas.

About 'Nirbhay Raho' Initiative

Source – PIB

- **Initiative by: "Nirbhay Raho" is an initiative implemented by the Ministry of Panchayati Raj under the Nirbhaya Fund in collaboration with the Ministry of Women and Child Development and the National Law School of India University (NLSIU), Bengaluru.**
- **It was launched on 11th March 2026.**
- **Aim: The initiative aims to empower 14.5 lakh Elected Women Representatives through capacity building on legal rights and leadership and sensitise 17.5 lakh Male Elected Representatives to promote gender equality and accountability.**
- **Objective: It has been launched to advance women's safety and empowerment in Panchayats.**
- **Features: Nirbhay Raho framework operates through three distinct channels:**
    - **Nirbhay Netri: It is focused on capacity building and legal awareness of Elected Women Representatives**
    - **Nirbhay Chetna: It aimed at sensitising elected male representatives towards gender equality and women-related issues**
    - **Nirbhay Drishti: It envisages the installation of CCTV cameras at strategic rural locations to strengthen technology-enabled safety infrastructure in Panchayats.**

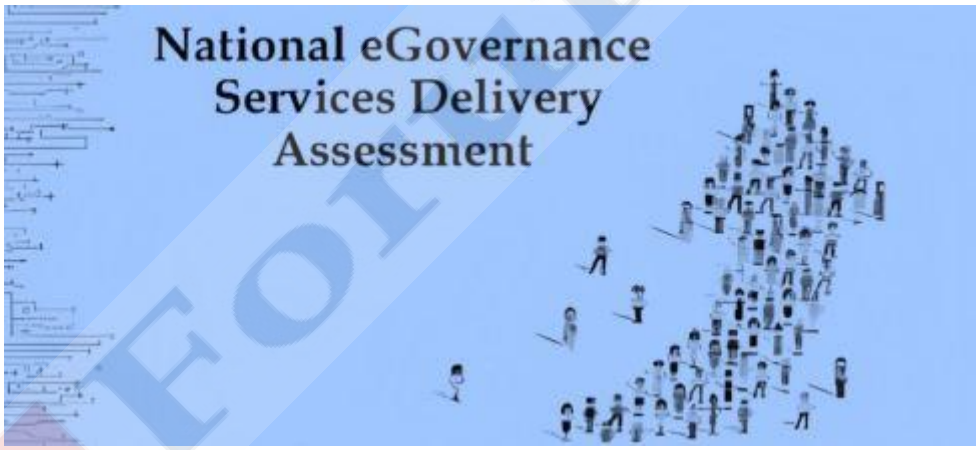
About Nirbhaya Fund

- **The Nirbhaya Fund Framework provides for a non-lapsable corpus fund for the safety and security of women.**
- **It is to be administered by the Department of Economic Affairs (DEA) of the Ministry of Finance (MoF) of the Government of India.**
- **Under this framework, an Empowered Committee reviews and recommends projects for funding, while concerned Ministries implement approved schemes.**
- **As per this framework, the MoF, through DEA, is the nodal Ministry for any accretion into and withdrawal from the corpus.**
- **Ministry of Women & Child Development (MWCD) is responsible for reviewing and monitoring the progress of sanctioned projects/ schemes in conjunction with the concerned Central Ministries/ Departments.**

NeSDA 2025 Portal

News: The Department of Administrative Reforms and Public Grievances (DARPG) launched the National e-Governance Service Delivery Assessment (NeSDA), 2025 Portal.

About NeSDA 2025 Portal



Source – DARPG

- **It will serve as a centralized platform to collect data online provided by the States, UTs and Central Ministries.**
- **Launched by: It has been launched by the Department of Administrative Reforms and Public Grievances (DARPG).**
- **Aim: It aimed at strengthening the assessment of digital governance and improving online service delivery across States, Union Territories, and Central Ministries.**

- It has been designed to evaluate how effectively government services are being delivered online from a citizen-centric perspective and to promote better performance in e-governance systems.
- It will also support consultations, capacity-building sessions, and regular review meetings during the assessment cycle.
- Portal Coverage: All Government Portals assessed under NeSDA are classified into two categories:
    - State, UT, City and Central Ministry Portals
    - State, UT, City and Central Ministry Service Portals.

About National e-Governance Service Delivery Assessment (NeSDA)

- It is a biennial framework used to measure the depth and effectiveness of online service delivery.
- It is based on the UN's Online Service Index and customised for India's federal structure to assess availability, accessibility, and maturity of digital services.
- Purpose: It serves as an important benchmarking exercise for improving online service delivery across the country and for promoting best practices among States, UTs and Central Ministries/Departments.
- Sectors covered: The NeSDA 2025 framework will evaluate government portals across multiple sectors, including finance, education, health, labour, agriculture, transport, tourism, and public grievance systems.
- Coverage: It will also include expanded coverage with services from the Ministry of Corporate Affairs and assess a total of 59 mandatory services for States and UTs and 43 services for Central Ministries.
- Parameters: The assessment will be based on parameters such as accessibility, ease of use, content availability, information security and privacy, integrated service delivery, open government data, e-participation, and use of emerging technologies.

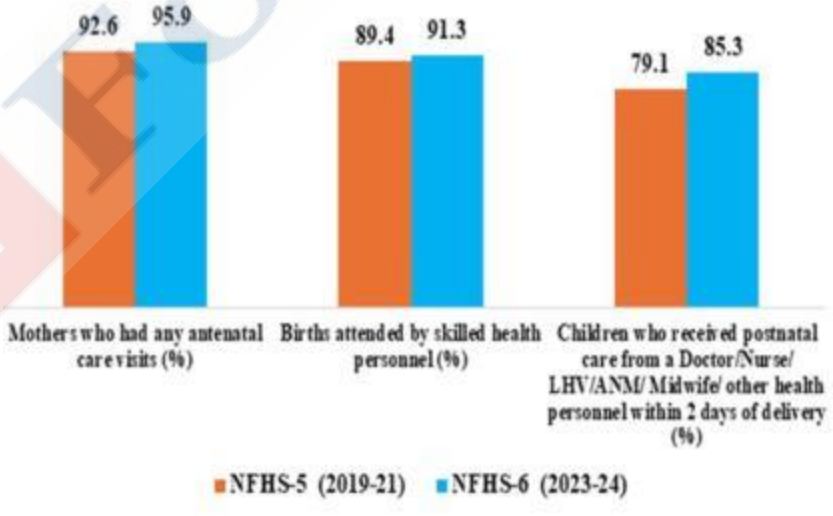
Key Highlights Of National Family Health Survey-6

News: The Ministry of Health and Family Welfare released the National Family Health Survey-6 conducted during 2023-24 across 715 districts.

About National Family Health Survey-6

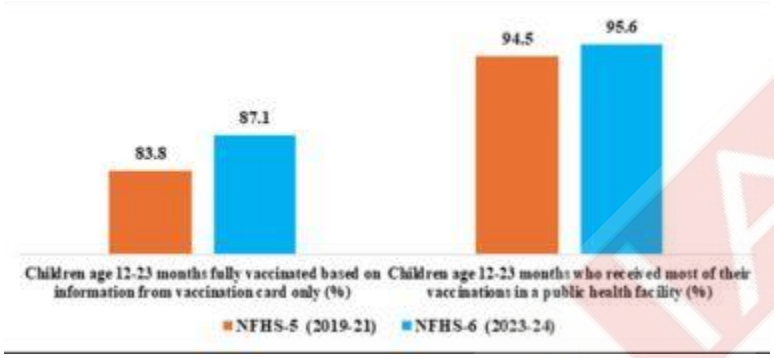
Source – PIB

- **The National Family Health Survey-6 provides evidence on population, health, nutrition, and family welfare indicators and supports planning up to the district level.**
- **Released by: It is released by the Ministry of Health and Family Welfare (MoHFW).**
- **Conducted by: The survey was conducted by the MoHFW with the International Institute for Population Sciences (IIPS), Mumbai serving as the nodal agency.**
- **Time Period: The survey was conducted during 2023–24.**
- **Key Highlights of National Family Health Survey-6:**
    - **Maternal Healthcare: Antenatal care coverage reached 95.9%, while institutional deliveries increased from 88.6% to 90.6% and skilled birth attendance rose to 91.3%.**



Source – PIB

- **Maternal Nutrition: Mothers consuming iron folic acid supplements for 100 days or more increased from 44.1% to 54.9%.**
- **Family Planning: The Total Fertility Rate remained at 2.0, while the Contraceptive Prevalence Rate increased from 66.7% to 69.1%.**
- **Child Immunization: Full vaccination coverage among children aged 12–23 months increased from 83.8% to 87.1%, and rotavirus vaccination coverage rose from 36.4% to 85.4%.**



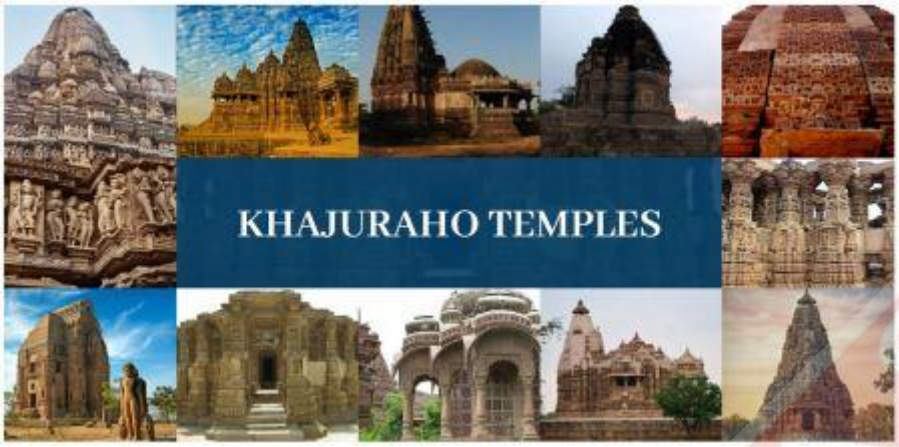
Source – PIB

- **Child Nutrition: Stunting among children under five years declined from 35.5% to 29.3%, while severe wasting declined from 7.7% to 5.2%.**
- **Health Protection: Household coverage under health insurance or financing schemes increased from 41.0% to 60.2%.**
- **Women's Empowerment: Women who had ever used the internet increased from 33.3% to 64.3%, while women operating their own bank accounts increased from 78.6% to 89.0%.**
- **Child Health: Symptoms of acute respiratory infection among children declined from 2.8% to 1.9%, and severe diarrhoea declined to 0.5%.**

Khajuraho Group of Temples

News: Yoga Mahotsav 2026 was organised at the UNESCO World Heritage Site, Western Group of Temples, Khajuraho, marking the 25-day countdown to International Day of Yoga (IDY) 2026.

About Khajuraho Group of Temples



Source – Ministry of Culture

- **The Khajuraho Group of Temples represents the culmination of northern Indian temple art and architecture of the Chandella dynasty.**
- **Location: Khajuraho temples are located in Chhatarpur district, Madhya Pradesh.**
- **Builder: The temples were built during the reign of the Chandella dynasty between 900 CE and 1130 CE.**
- **Religious Affiliation: The temples are associated with Shaivism, Vaishnavism, and Jainism, while the Parsvanatha Temple is the largest Jain temple in the complex.**
- **Surviving Temples: Khajuraho had about 85 temples in the 12th century, but only around 20 temples remain today.**
- **Categorisation: The Khajuraho temples are divided into three groups:**
    - **Western Group: This is the most important and well-preserved group and includes Kandariya Mahadeva Temple, Vishwanath Temple, Lakshmana Temple, Devi Jagdamba Temple, Chitragupta Temple, and Chausath Yogini Temple.**
    - **Eastern Group: This group contains both Hindu and Jain temples and includes Brahma Temple, Vamana Temple, Javari Temple, Ghantai Temple, and Parsvanatha Temple.**
    - **Southern Group: This group includes Duladeo Temple and Chaturbhuja Temple, which is unique because it does not contain erotic sculptures.**
- **Architecture:**
    - **Temple style: The Khajuraho temples are built in the Nagara style of North Indian temple architecture.**
    - **Temple Platform: Each temple stands on a highly ornate terraced platform called jagati.**
    - **Shikhara: The sanctum is crowned by a shikhara, whose vertical form is enhanced by a series of miniature spires.**
    - **Temple Layout: The temples follow an axial plan consisting of ardhamandapa, mandapa, antarala, and garbhagriha, arranged in a hierarchical sequence.**
    - **Additional Features: Many temples include transepts, projecting windows, and a circumambulatory path around the sanctum.**

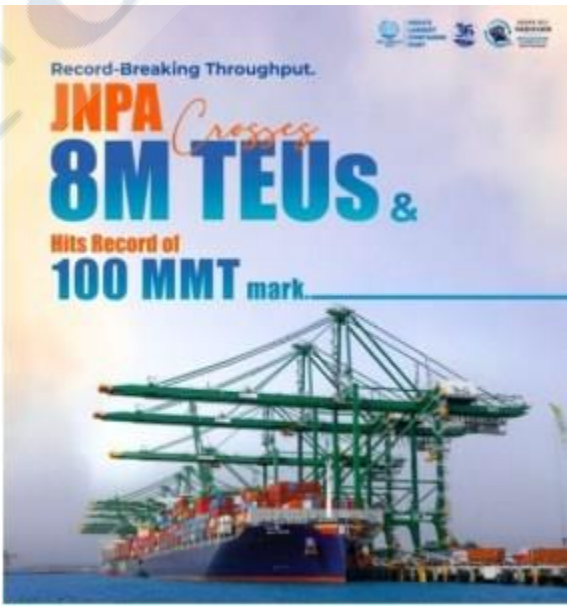
- Panchayatana Type: Some temples follow the Panchayatana plan, with four subsidiary shrines around the main shrine.
- Building Material: Most temples were constructed using light-coloured sandstone from the Panna region, while some smaller structures used granite.
- Orientation: Most temples face east so that the rising sun illuminates the temple entrance.

- Sculpture: The Khajuraho temples are renowned for their rich sculptural tradition, which is harmoniously integrated with the temple architecture.
  - Themes Depicted: The sculptures portray Hindu gods and goddesses, mythological stories, acts of worship, and various sacred and secular themes.
  - Social Life Representation: The carvings depict teachers and disciples, dancers, musicians, ascetics, domestic scenes, and other aspects of daily life.
  - Celestial Figures: Special emphasis was given to the representation of celestial women such as apsaras and surasundaris.
  - Erotic Sculptures: Erotic sculptures form an important part of the sculptural programme and are associated with ideas of female beauty, fertility, and human life.
- Management and Protection:
  - Ownership and Management: The monuments are owned by the Government of India and are managed by the Archaeological Survey of India (ASI).
  - Legal Protection: The site is protected under the Ancient Monuments and Archaeological Sites and Remains (AMASR) Act, 1958.

Logistics Port Performance Index (LPPI) for FY 2024-25 and Maritime Digital Reforms

News: Ministry of Ports, Shipping and Waterways (MoPSW) has recently launched the Logistics Port Performance Index (LPPI) for FY 2024-25 and Maritime Digital Reforms.

About Logistics Port Performance Index (LPPI) for FY 2024-25



Source: India Shipping News

- It is a **national benchmarking mechanism** designed **to assess and improve the operational performance of Indian ports.**
- **Launched by:** It has been launched by the **Ministry of Ports, Shipping and Waterways (MoPSW).**
- It has been developed under the **Sagar Aankalan framework.**
- It aligns with the **PM Gati Shakti National Master Plan, Maritime India Vision 2030** and **Maritime Amrit Kaal Vision 2047.**
- It seeks **to strengthen India's position in global logistics and maritime trade.**
- Parameters: It evaluates ports across three cargo segments – Dry bulk, liquid bulk and container cargo.
    - It uses **operational indicators** such as **cargo handled, vessel turnaround time, berth idle time, pre-berthing waiting time, container dwell time and ship berth day output**.
    - It assigns **equal weightage to absolute performance** and **year-on-year improvement**, encouraging continuous enhancement of port operations.
- **Performance:**
    - **Paradip Port Authority topped** the **Dry Bulk Cargo category**.
    - **Sikka Port and Terminals** led the **Liquid Bulk Cargo segment.**
    - **Mundra Port** emerged as the **highest-ranked facility in the Container Cargo category** and **Jawaharlal Nehru Port Authority** (JNPA) secured **second position** among **major container ports.**
    - **Note:** India's ranking in the **World Bank's Logistics Performance Index improved from 44th to 22nd position** in the **International Shipments category.**
        - Also, **seven Indian ports** featured among the **world's top 100 ports in the World Bank's Container Port Performance Index 2024.**
        - **JNPA crossed eight million TEUs** and handled **more than 102 MMT** of cargo during financial year **2025-26**, reflecting the shipping sector's growth.

About Maritime Digital Reforms

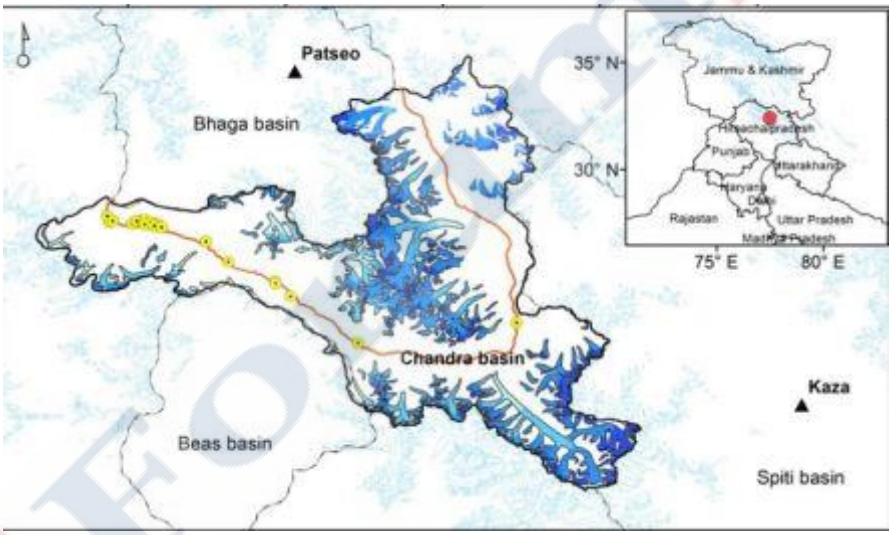
- **Launched by: The Ministry of Ports, Shipping and Waterways (MoPSW)** has launched **four digital initiatives.**
- **Aim:** They are initiated to **improve service delivery, transparency and accountability** for seafarers and maritime stakeholders.
- **Developed by:** It has been developed by the **Directorate General of Shipping (DGS).**
    - The **DGS** is **an attached office of the** MoPSW.
- **The initiatives include:**
    - **A 24×7 Grievance Redressal Module under the e-Navik platform**
    - **A Ship Registration Module on the e-Samudra platform**
    - **A Medical Practitioner Module and**
    - **A Unified Ship Recycling Credit Note Module**
- **About 24×7 Grievance Redressal Module under the e-Navik platform:**
    - It is a **major welfare measure for Indian seafarers.**
    - It would **allow grievances to be filed through multiple channels,** including the e-Navik portal, toll-free helplines, WhatsApp and dedicated email services from anywhere in the world.

- **About Ship Registration Module on the e-Samudra platform:** The digital ship registration module simplifies vessel registration procedures,
- **About the Medical Practitioner Module:** It would streamline the registration and monitoring of doctors authorised to certify seafarers, while reducing the risk of fraudulent certifications.
- **About Unified Ship Recycling Credit Note Module: The Unified Ship Recycling Portal for Ship Recycling Credit scheme** is part of the **Government's ₹70,000-crore maritime development package** announced in 2025.
    - Under the scheme, **ship owners recycling vessels at Hong Kong Convention-compliant Indian yards can receive a credit note equivalent to 40 per cent of the vessel's scrap value,** redeemable against new shipbuilding projects in India.

Chandra River

News: Sissu village on the Chandra River is facing concerns due to the expanding Ghepan Lake and the risk of a glacial lake outburst flood.

About Chandra River



Source – ResearchGate

- **Origin: The Chandra River originates from a huge snow bed on the south-eastern side of Baralacha La (in Himachal Pradesh) and rises among the snows lying at the foot of the main Himalayan range.**
- **Source: The river is fed by numerous glaciers throughout its course.**
- **The largest glaciers are the Shigri Glacier on its left bank and the Samundari Glacier on its right bank.**
- **Course: It flows through the Lahaul region of Himachal Pradesh and passes through areas such as Khoksar, Sissu and Gondhla.**
    - **Chandra Tal Lake lies along its course and has an outlet into the river.**

- **The river travels through a cold desert region and descends steadily until Tandi.**
- **The Confluence: At Tandi, the Chandra River meets the Bhaga River and their combined waters flow together.**
- **Birth of Chenab: After the confluence at Tandi, the combined waters of the Chandra and Bhaga rivers form the Chandrabhaga or Chenab River.**

Hog Deer

News: A rare albino hog deer was recently sighted in Kaziranga National Park.

About Hog Deer

Source: Thai National Parks

- The hog deer is a species belonging to the **genus Axis.**
- **Scientific name:** Its scientific name is **Axis porcinus.**
- **Habitat:** It inhabits well-covered dense forests **near rivers and marshes,** including **dense reed beds, thick riverside vegetation, and woodland areas** close to swamps.
- **Distribution**
  - It is **endemic** to the **tall, moist grasslands of South and Southeast Asia.**
  - **Its geographic range is** throughout **India and Pakistan, including the Himalayan foothill zone** and **Southeast Asia,** including Burma and Thailand.
  - **Its free-ranging populations have been introduced by humans in Sri Lanka, Australia and U.S.A.**
  - **Distribution in India:** In India, it is **limited to grasslands adjoining the foothills of the Himalayas, near wetlands and floodplains of the rivers Ganga and Brahmaputra**, extending from Punjab to Arunachal Pradesh.
- **Characteristics:**
  - **Appearances:** It is a **low, stocky-built animal** with a muscular body.
    - **Height:** It measures **approximately 70 cm** at shoulder height.
    - **Weight:** It can weigh between **50 – 110 kg.**
    - It has **relatively short legs, with its body being lower** in the **front** than the back.

    - It has a **short and wedge-shaped face.**
    - It is **brown with a yellowish or reddish tinge in appearance** and sometimes has a speckled appearance, as some hairs have white tips.
    - There is a **darker band running down its spine.**
    - The **females are slightly smaller than the males and lack antlers.**
    - **Males** bear t**hree-tined antlers,** mounted on short pedicles on the forehead.
    - Its distinctive feature is the **unusually large, round ears** that are fringed with white hairs.
    - Also, its **tail is particularly bushy** due to long hairs that lie in a dorsoventral pattern.
  - **Diet:** It feeds upon **grass, leaves, young shoots, herbaceous plants and riverside vegetation.**
  - **Behaviour:** It is a **solitary animal and is not found in large herds.**
    - It makes a **whistling sound when alarmed and gives a warning bark.**
    - It has a **habit of rushing through grass with its head down** like a pig, rather than bounding or leaping over obstacles like other deer species.
    - It is **sedentary** and **does not migrate.**
    - **Males** tend to be territorial and **mark their territory with glandular secretions.**
- **Threats: Habitat fragmentation due to anthropogenic activities and hunting** are the main threats to its existence.
- **Conservation:**
  - **IUCN Red List:** It is currently classified as **Endangered** as per the **IUCN Red List.**
  - **Wildlife (Protection) Act, 1972:** It is protected under **Schedule I of the Wildlife (Protection) Act, 1972.**

About Albino Hog Deer

Source: Wikimedia Commons

- The albino hog deer is a **small cervid species which is rarely found in the wild.**
- It is **native to** the region of the **Indian subcontinent and the Indo-Gangetic Plain.**
- It is characterized by **white fur, pink eyes and pale hooves.**
- **Albino is a genetic defect wherein the animal lacks colour completely.**