

INSTA ವಿದ್ಯಮಾನ

A Weekly Current Affairs Initiative

KAS, FDA/SDA/PDO/ GROUP C, PSI/PC, TEACHER'S EXAMS

ಕನ್ನಡ & English

By- **Nandan Sir**

October 2nd Week 2026

- Indian Navy's first indigenous fleet support ship 'Surya'
- Living Planet Report, 2026
- Central Armed Police Forces Act Comes into Force
- GST 2.0 Upgrade
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- World Mental Health Day 2026
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- Calibrated Tightening of Monetary Policy
- New Extinct Relative of Gharial (Herugavialis cairensis)
- Black Sea

Indian Navy's first indigenous fleet support ship 'Surya'

Defence



Context

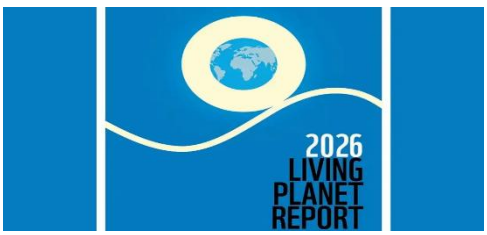
- Defence Minister Rajnath Singh launched **'Surya', the Indian Navy's first indigenously built Fleet Support Ship (FSS-1), in Visakhapatnam.**

About

- **Builder**: **Hindustan Shipyard Limited (HSL), Visakhapatnam.**
- **Significance: First of five indigenously built Fleet Support Ships** for the Indian Navy.
- **Displacement: ~43,500 tonnes; speed: 20 knots.**
- **Role**: Supplies fuel, fresh water, ammunition, spare parts and provisions to warships at sea.
- **Features**: Helicopter deck and self-defence systems.
- **Importance:** Enhances naval operational endurance and India's maritime presence across the **Indian Ocean Region (IOR).**

Living Planet Report, 2026

Environment



Context

- **The World Wide Fund for Nature (WWF) released the *Living Planet Report 2026*,** reporting an average 73% decline in monitored vertebrate population sizes between 1970 and 2022.

Living Planet Report 2026

- **Released by - World Wide Fund for Nature (WWF)** based on the Living Planet Index (LPI) **produced by the Zoological Society of London (ZSL).**
- **Coverage:** 35,803 population trends across **5,790 vertebrate species (1970–2022).**

Key Findings

- **Overall decline:** 73% average decline in monitored vertebrate population sizes between 1970 and 2022.
- **Ecosystem-wise decline:**
  - **Freshwater: 85%**
  - **Terrestrial: 69%**
  - **Marine: 59%**
- Around half of monitored populations remained stable or increased, highlighting the potential of conservation interventions.

Major Threats

- Habitat loss and degradation.
- Overexploitation of natural resources.
- Climate change.
- Invasive alien species.
- Pollution and disease.

Significance: Highlights biodiversity loss and the need for ecosystem restoration, sustainable resource use and effective conservation measures.

Central Armed Police Forces Act Comes into Force

Polity and Governance

Context

- The **Central Armed Police Forces (General Administration) Act, 2026 came into force** from October 8, 2026.

Central Armed Police Forces (General Administration) Act, 2026 — UPSC

- **Effective Date:** 8 October 2026.
- **Objective: Regulates recruitment, promotion, deputation and service conditions** of officers in CAPFs.
- **CAPFs Covered:** BSF, CRPF, CISF, ITBP and SSB.
- **IPS Deputation:**
  - **67% of Additional DG posts and 50% of IG posts reserved for IPS officers** on deputation.
  - Special DG and DG posts filled exclusively through deputation.
- **Background:** In 2025, the Supreme Court recognised Group A CAPF officers as an Organised Service and directed progressive reduction of IPS deputation to IG-level posts within two years.
- **Significance:** Highlights the debate over IPS deputation, internal promotions and career progression of CAPF cadre officers.

GST 2.0 Upgrade

Economy

Context

- **The 57th GST Council meeting i**ntroduced major process and enforcement reforms, including easing registration, refunds and litigation, while proposing to raise the prosecution threshold from ₹1 crore to ₹5 crore.

Goods and Service Tax (GST)

- Goods and Services Tax is an **indirect tax used in India on the supply of goods and services.**
- It is a value-added tax **levied on most goods and services sold for domestic consumption.**
- It was **launched in India in 2017 as a comprehensive indirect tax for the entire country.**

It is of three types i.e.

1. CGST to be levied by the Centre,
2. SGST to be levied by the States and
3. IGST a tax levied on all Inter-State supplies of goods and/or services.

GST Council

- **Legal status -** It is a **Constitutional body under Article 279A**, introduced by the Constitution **(One Hundred and First Amendment) Act, 2016.**
- **Mandate** - It is empowered to modify, reconcile or to procure any law or regulation based on the context of GST in India.
- **Federal body** - It is also considered as a **federal body where both the centre and the states get due representation.**
- **Functions: It makes recommendations to the Union and State Government on issues related to GST.**
- **Composition**
  - **Chairperson: Union Finance Minister.**
  - **Members: Union State Minister of Revenue or Finance and Ministers in-charge of Finance or Taxation of all the States**.

BrahMos

Defence



Context

- The Ministry of Defence has signed a contract worth over 660 crore rupees with BrahMos Aerospace Private Limited for **procurement of BrahMos Fire Control System and Launchers for Indian Navy ships.**

BrahMos Missile

- **Type:** Two-stage **supersonic cruise missile (World's fastest operational cruise missile).**
- **Joint Venture: India (DRDO) and Russia (NPOM).**
- **Named after Brahmaputra and Moskva rivers.**
- **Speed: Mach 2.8 to 3.0** (Nearly 3 times the speed of sound).
- **Principle: "Fire and Forget"** (Requires no control after launch).
- **Platform**: Multi-platform (Can launch from **land, air, sea, and submarines).**
- **Warhead**: **200–300 kg** conventional (tactical weapon, not nuclear).
- **Range Evolution & MTCROriginal Range (290 km)**: Restricted due to Russia being bound by MTCR (Missile Technology Control Regime) rules.
- **Extended Range (400–450 km+)**: Upgraded after India joined MTCR in 2016, lifting the range limits.

World Mental Health Day 2026

Health



Context

- **World Mental Health Day is observed annually on October 10.**
- The **2026 theme is "Lived experiences heard: real voices, real change".**
- **Initiated by :** 1992 by the **World Federation for Mental Health (WFMH).**
- **Mental Health:** State of well-being that enables individuals **to cope with stress, work productively and contribute to society.**

Indian Initiatives

- **Tele-MANAS:** 24×7 tele-mental health helpline providing counselling and support.
- **National Mental Health Programme (NMHP):** Launched in 1982.
- **District Mental Health Programme (DMHP):** Launched in 1996, based on Karnataka's Bellary Model.
- **Ayushman Arogya Mandirs:** Integrate mental health services into comprehensive primary healthcare.

- **Mental Healthcare Act, 2017:** Protects the rights and dignity of persons with mental illness.

Global Initiatives

- **WHO Comprehensive Mental Health Action Plan (2013–2030):** Strengthens mental health services, leadership and prevention.
- **WHO mhGAP:** Supports evidence-based mental healthcare through non-specialist health workers.
- **SDG 3.4:** Promotes mental health and well-being alongside reducing premature mortality from non-communicable diseases.

World Cotton Day

Economy



Context

- India and Mali jointly organised a UN event on "Cotton for Sustainability: Livelihoods, Value Addition and Partnership.

World Cotton Day

- **Observed:** 7 October, proclaimed by the UN General Assembly.
- **First observed:** 7 October 2019, in Geneva.
- **Origin:** Proposed by the Cotton Four (C-4) countries — Burkina Faso, Benin, Chad and Mali.
- **Objective:** Promote cotton, its by-products, markets and livelihoods.

Cotton Cultivation in India

- It is **often referred to as "White Gold,"**
- It is a vital commercial crop that **serves as the backbone of India's textile industry and sustains millions of livelihoods**.

Geographic & Climatic Requirements-

- It is a **subtropical Kharif crop requiring 6–8 months to mature,** cotton needs a warm, sunny **climate (21°C–30°C)** with at least 210 frost-free days.
- **Rainfall/Soil:** Requires **50–100 cm of wate**r; best grown on moisture-retaining **Black Cotton Soil (Regur),** though it **thrives in alluvial/red soils** with proper drainage to avoid waterlogging.
- **Production: India is the world's top producer a**nd holds the largest acreage.
- **Major producing states** - Gujarat, Maharashtra, and Madhya Pradesh
- **Key Challenges: Pink Bollworm (PBW) resistance**

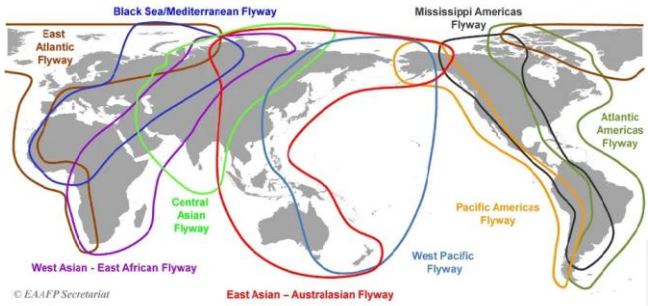
Mission for Cotton Productivity

- It is also **referred as Kapas Kranti**

- **Objective** - it aims **to address stagnant yields and improve fibre quality to make India a self-reliant** and globally competitive textile hub.
- Focuses on high-density planting (HDPS), developing 24 climate-resilient varieties, promoting Extra Long Staple (ELS) cotton, and **branding ("Kasturi Cotton Bharat").**
- **Modernization: Includes upgrading 2,000 ginning units and integrating digital tools for better market access**

Central Asian Flyway (CAF)

Environment



Context

- **The Central Asian Conservation Network (CACN) has launched a new Central Asian Flyway Digital Hub.**

Central Asian Flyway Digital Hub

- **Launched by: Central Asian Conservation Network (CACN).**
- **Objective:** Strengthen knowledge-sharing and cooperation for the **conservation of migratory birds.**
- **Key Features:**

1. Information on migratory bird species, important flyway sites and conservation projects.
2. Opportunities for public participation.
3. Dedicated portals to report bird collisions and sightings of marked birds.

- **Importance:** The Digital Hub can improve cross-border data sharing, monitoring of bird collisions and coordinated conservation efforts.

Central Asian Flyway (CAF)

- **Geographical extent:** Covers 30 countries across North, Central and South Asia and the Trans-Caucasus, connecting the Arctic and Indian Oceans.
- **Bird diversity:** More than 600 bird species use this flyway.
- **Species covered:** Migratory waterbirds, landbirds and raptors.
- **Significance:** Supports international cooperation for conserving migratory birds, many of which face population declines.
- **International framework:** Associated with conservation efforts under the Convention on the Conservation of Migratory Species of Wild Animals (CMS).

Connect with the basics - CONSERVATION OF MIGRATORY SPECIES OR BONN CONVENTION

- **Known as -** The Convention on the Conservation of Migratory Species of Wild Animals is more commonly known as **Conservation of Migratory Species (CMS) or the Bonn Convention;**
- **Objective - It aims to conserve terrestrial, marine and avian migratory species throughout their range.**
- **Launched under -** It is an intergovernmental treaty, concluded under the aegis of the **United Nations Environment Programme (UNEP),** concerned with the conservation of wildlife and habitats on a global scale.

- **Coverage -** The Appendices of **CMS include many mammals, including land mammals, marine mammals and bats; birds; fish; reptiles and one insect.**

CMS COP 13

- **Held in** - The UN Environment Programme's (UNEP) 13th Conference of Parties [COP] on the Conservation of Migratory Species of Wild Animals (CMS) was held in **Gandhinagar (Gujarat) in February 2020.**
- **Mascot -** The mascot for CMS COP-13 was **'Gibi — The Great Indian Bustard'.**
- **Gandhinagar Declaration -** The COP-13 adopted the Gandhinagar Declaration which **calls for migratory species and the concept of ecological connectivity** to be integrated and prioritized in the post-2020 global biodiversity framework.
- **New species added -** The Asian Elephant, Jaguar and Great Indian Bustard were added to CMS Appendices at COP-13.

Concept of Flyways

- **Developed by - Bird Life International**
- **Definition** - According to Bird Life International, f**lyways are geographical areas covered by a migratory bird over the course of its annual cycle, encompassing breeding and non-breeding grounds and the connecting migration route.**

CAQM Panel Proposes 100% Electric Cars in Delhi by 2030

Environment

Context

- **A 15-member expert committee appointed by the Commission for Air Quality Management (CAQM)** has recommended a phased phase-out of older vehicles in Delhi-NCR.

Commission for Air Quality Management (CAQM)

- **Established:** Under the Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021.
- **Objective:** Coordinate, monitor and address air pollution in the National Capital Region (NCR) and adjoining areas.

Powers and Functions

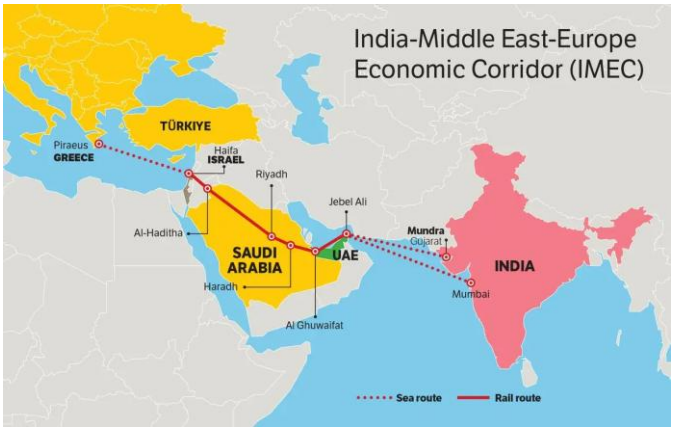
- Restricts activities affecting air quality and issues pollution-control guidelines.
- Issues **binding directions** to concerned authorities and persons.
- May impose environmental compensation for stubble burning, as prescribed by the Central Government.
- Issues orders under the **Graded Response Action Plan (GRAP)** to combat air pollution in the NCR.
- In case of conflict, its directions prevail over those of state governments, CPCB, State Pollution Control Boards and other state-level statutory bodies.

Significance

- Enables coordinated action against air pollution across state boundaries.
- Strengthens pollution-control enforcement and accountability.
- Promotes a regional approach to improving air quality.

India-Middle East-Europe Economic Corridor (IMEC)

International



News -

- France's Special Envoy for IMEC called for adding alternative routes to IMEC amid shipping risks in the Strait of Hormuz.

India–Middle East–Europe Economic Corridor (IMEC)

- **Announced:** G20 New Delhi Summit, 2023.
- **Objective:** Develop a multimodal trade corridor linking India with Europe through the Gulf.

Corridors

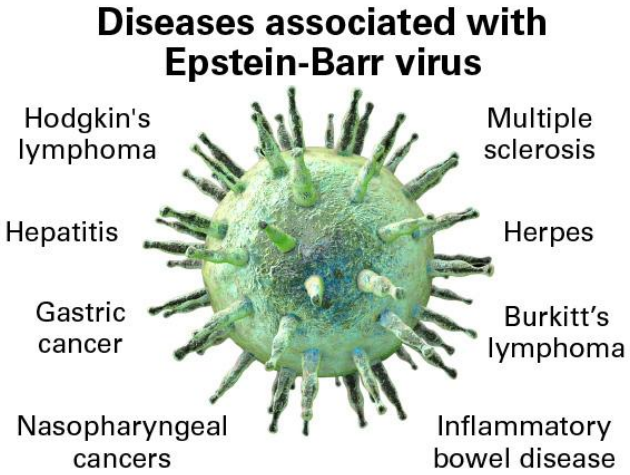
- **Eastern Corridor:** India to the Gulf by sea.
- **Northern Corridor:** Gulf to Haifa (Israel) by rail through Saudi Arabia and Jordan, then to Europe by sea.
- **Signatories:** India, Saudi Arabia, UAE, France, Germany, Italy, EU and the US. Jordan and Israel are non-signatories to the MoU.
- **Funding:** G7's Partnership for Global Infrastructure and Investment (PGII), launched in 2022, aims to mobilise **$600 billion by 2027**.

Significance

- **Faster trade:** Projected to reduce transit time by around 40%.
- **Strategic connectivity:** Could reduce **dependence on the Bab-el-Mandeb Strait and Suez Canal.**
- **Mediterranean gateway:** Adani Ports acquired a 70% stake in Haifa Port Company in 2023.
- **Geopolitical significance:** Offers an **alternative connectivity framework to China's Belt and Road Initiative (BRI).**
- **Energy and digital links:** Proposes electricity cables, digital cables and clean hydrogen pipelines.

Epstein-Barr virus (EBV)

Health



News -

- A recent analysis by the International Agency for Research on Cancer (IARC), under the WHO, highlighted that **EBV is among the most widespread of human viruses.**

Epstein–Barr Virus (EBV) — UPSC

- **Type:** Double-stranded DNA virus belonging to the herpesvirus family; also called **Human Herpesvirus 4 (HHV-4)**.
- **Discovery:** Identified in **1964 by Anthony Epstein, Yvonne Barr and Bert Achong** in

Burkitt lymphoma cells; the **first human virus linked to cancer.**

- **Transmission: Primarily through saliva,** hence called the **"kissing disease"**; also **transmitted through blood transfusions and organ transplants.**
- **Prevalence:** Infects over 90% of adults worldwide, usually during childhood.
- **Associated Diseases:** Infectious mononucleosis, certain cancers, multiple sclerosis and post-transplant lymphoproliferative disorder (PTLD).

Prime Minister Dhan-Dhaanya Krishi Yojana (PMDDKY)

Government Schemes

News-

- All 100 PMDDKY districts increased their average score from 18.85 in April 2026 to 46.89 in August 2026.

Prime Minister Dhan-Dhaanya Krishi Yojana

- **Launched in - 2025.** The scheme will be launched in partnership with states.

Key Focus Areas:

- **Enhancing agricultural productivity.**
- **Promoting crop diversification and sustainable practices.**
- **Expanding post-harvest storage at Panchayat and Block levels.**
- **Improving irrigation facilities.**
- **Facilitating long-term and short-term credit access.**

Building Rural Prosperity and Resilience Program

- **Purpose**: launched in partnership with states **to address under-employment in agriculture.**
- **Key Focus Areas: Skilling, investment, and technology to invigorate rural economy. Modernizing agriculture with improved productivity and warehousing.**
- **Target Beneficiaries**: **Rural women, young farmers, marginal & small farmers and landless families.**

Unlawful Activities (Prevention) Act (UAPA)

Polity

News -

- The Experts highlight concerns regarding the **Unlawful Activities (Prevention) Act (UAPA), 1967, to balance national security with constitutional liberties.**

Unlawful Activities (Prevention) Act (UAPA), 1967

- **Objective: Prevent unlawful activities threatening India's sovereignty and territorial integrity** and address terrorism-related offences.
- **Constitutional Basis:** Parliament's legislative powers under the Constitution, including relevant provisions of the Union List.
- **2004 Amendment:** Incorporated terrorist activities within the Act's framework.
- **2019 Amendment: Empowered the Central Government to designate individuals as terrorists under specified conditions.**
- **Implementing Agencies: National Investigation Agency (NIA)** and other Central and State law enforcement agencies.

INS Shreyas

Defence

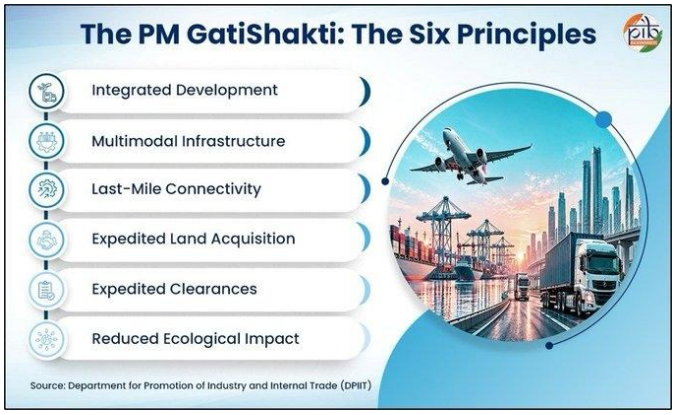


denece

- **Context:** Third of four planned **Next Generation Offshore Patrol Vessels** (NGOPVs), **launched in Kolkata.**
- **Builder: Garden Reach Shipbuilders and Engineers (GRSE),** an Indian shipyard.
- **Meaning:** "Best" or "most excellent" in Sanskrit.
- **Capabilities:** Maximum speed of 23 knots; range of 8,500 nautical miles at 14 knots.
- **Operational Roles: Anti-piracy, counter-infiltration, anti-poaching, anti-trafficking, evacuation, search and rescue, and offshore asset protection.**
- **Significance:** Strengthens indigenous naval shipbuilding and maritime security.

Five Years of PM GatiShakti

Government Scheme



Context

- **PM GatiShakti National Master Plan (PMGS-NMP) has completed five years.**

PM GatiShakti National Master Plan (PMGS-NMP)

- **Launched:** 13 October 2021.
- **Nodal Department:** Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry.
- **Objective:** Integrate multimodal infrastructure planning, improve last-mile connectivity and reduce logistics costs and travel time.

Key Features

- **Seven Infrastructure Engines: Roads, Railways, Ports, Waterways, Airports, Mass Transport and Logistics Infrastructure.**
- **Integrated Planning:** Integrates infrastructure schemes such as **Bharatmala, Sagarmala, inland waterways and UDAN.**
- **Whole-of-Government Approach:** Covers **58 Central Ministries/Departments and all 36 States and Union Territories.**
- **GIS-Based Platform:** Integrates geospatial and infrastructure data for coordinated planning and decision-making.

- **Public Platform:** Provides access to approved datasets for connectivity mapping, site suitability and project planning.

Gati Shakti Vishwavidyalaya (GSV)

- **Established: 2022; a specialised university focused on transport and logistics.**
- **Role:** Provides education, training and research to support PM GatiShakti and the National Logistics Policy, 2022.
- **Training:** As of July 2026, had trained over 2.4 lakh officers through PM GatiShakti-related courses.

Aatmanirbharta in Pulses

Economy



Context

- **India is the world's largest producer of pulses,** yet it remains a major importer.

Mission for Aatmanirbharta in Pulses

- The Mission was launched for **2025–26 to 2030–31 w**ith a budgetary allocation of **₹11,440 crore.**
- **Objective** - It aims **to make India self-sufficient in pulses production**, reducing dependence on imports in light of rising domestic demand.
- It aims to ensure **100 percent procurement of Tur, Urad, and Masoor at MSP for four years**.

Additional Information- Pulses Production and Consumption in India

- **Global Leade**r: India is the **largest global producer (25%), consumer (27%), & importer (14%) of pulses.**
- **Seasonal Production:** Pulses are **grown in Kharif and Rabi seasons**

Season-wise Major Pulses Crops

Season	Pulses
Kharif	Arhar, Urd, Moong, Lobia, Kulthi and Moth
Rabi	Gram, Lentil, Pea, Lathyrus and Rajma
Spring	Urd, Moong, Lobia

- **Madhya Pradesh, Maharashtra and Rajasthan are the top three pulses producing states** in the country.

Government Initiatives for Achieving Self-Sufficiency in Pulse Production

- **National Food Security Mission (NFSM-Pulses)**: Boosts area, production, and productivity through HYV seeds, improved agronomy, and demonstrations.
- **Minimum Support Price (MSP) for Pulses**: Regularly revised MSPs (E.g., Tur ₹7000/qtl in 2023-24) ensure price security and encourage pulse cultivation.
- **Seed Hub Program by ICAR-IIPR**: Expands availability of certified, short-duration, and high-yielding pulse seeds at the grassroots level.
- **PM-AASHA Scheme:** Ensures MSP realisation via Price Deficiency Payment (PDP) and targeted procurement by private and public agencies.
- **Climate-Resilient Varieties Development (ICAR)**: Develops varieties resistant to drought, pests, and diseases suited to changing climates.

- **e-NAM Integration for Pulses:** Enhances market access, reduces middlemen, and enables transparent price discovery through online pulse trading.

Lakshadweep Becomes a Fully Literate Union Territory

Polity

Context

- **Lakshadweep has achieved full literacy status under the ULLAS – Nav Bharat Saaksharta Karyakram.**

ULLAS Scheme

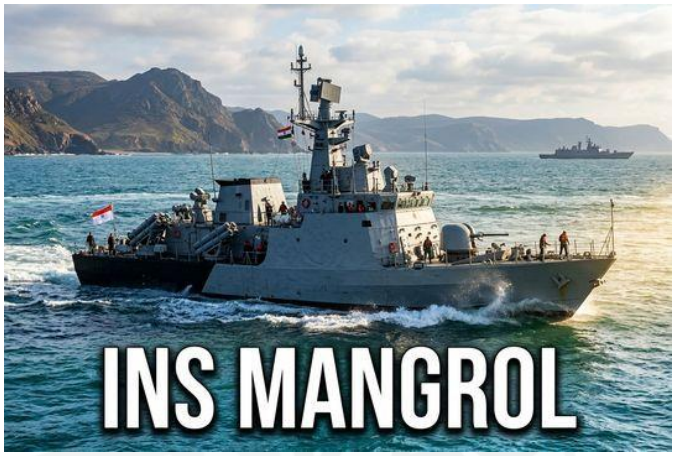
- **Full Name: Understanding of Lifelong Learning for All in Society (ULLAS) – Nav Bharat Saaksharta Karyakram.**
- **Type: Centrally Sponsored Scheme (2022–2027), aligned with NEP 2020.**
- **Target Group: Non-literate adults aged 15 years and above.**
- **Five Components:**
    1. Foundational Literacy and Numeracy
    2. Critical Life Skills
    3. Basic Education
    4. Vocational Skills
    5. Continuing Education
- **Objective:** Build a *Jan-Jan Saakshar* India through volunteerism and *Kartavya Bodh* (sense of duty).

Literacy in India

- **Census Definition:** A person **aged 7 years or above who can read and write with understanding in any language.**
- **Expanded Definition:** Includes **reading, writing and numeracy with comprehension, along with digital and financial literacy** and other critical life skills.
- **Full Literacy:** A State/UT is considered fully literate upon achieving a **literacy rate of 95% or above.**

INS Mangrol

Defence



Context

- The Indian Navy commissioned the **'Mangrol', the third Anti-Submarine Warfare Shallow Water Craft.**

INS Mangrol

- **Type:** Third **Anti-Submarine Warfare Shallow Water Craft (ASW-SWC)** commissioned into the Indian Navy.
- **Name:** Named after **Mangrol, a coastal town and fishing harbour in Gujarat;** also honours the erstwhile INS Mangrol, a minesweeper decommissioned in 2004.
- **Indigenous Content: Over 80%, supporting *Aatmanirbhar Bharat*.**
- **Capabilities:**
    1. Anti-Submarine Warfare in coastal waters.
    2. Underwater surveillance and mine warfare.

3. Low-Intensity Maritime Operations (LIMO).

- **Equipment:** T**orpedoes, anti-submarine rockets, advanced radars and sonars.**
- **Propulsion:** Waterjets.
- **Significance:** Strengthens coastal defence and indigenous naval shipbuilding.

JOSH (Joint Squad for Health) Initiative Government Scheme



News -

- **Union Minister for Health and Family Welfare launched JOSH (Joint Squad for Health) Initiative under Tuberculosis (TB) Mukt Bharat Abhiyaan.**

JOSH Initiative

- **Implementation: Ministry of Health and Family Welfare,** in collaboration with the **Ministry of Youth Affairs & Sports, Ministry of Defence** and Government of NCT of Delhi.
- **Objective:** Strengthen **community-level outreach and public participation in India's TB elimination programme.**
- **Team Composition:** Five **MY Bharat Volunteers and five NCC Cadets,** led by a designated Class-I officer at the block/ward level.
- **Key Stakeholders:** Government functionaries, health workers, Panchayati Raj Institutions and local communities.
- **Coverage:** First phase launched across 55 districts in 11 States/Union Territories.
- **Significance: Promotes *Jan Bhagidari* (people's participation)** through regular outreach and field-level activities to support TB elimination.

Additional Information - World Tuberculosis Day

- The day is observed **to commemorate the anniversary of Dr. Robert Koch's discovery of the TB bacteria in 1882.**
- **2026 Theme - Yes! We can end TB**

Tuberculosis

- **Caused by** - It is caused by bacteria called **Mycobacterium tuberculosis.**
- **Transmission** - It **spreads from person to person t**hrough the air when people cough, sneeze or spit.
- **Symptoms - Cough, chest pain, weakness, weight loss, fever, and night sweats.**
- **Treatment** - TB is a treatable and curable disease by antimicrobial drugs.
- **Multidrug-resistant tuberculosis (MDR-TB)** is a form of TB caused by bacteria that do not respond to isoniazid and rifampicin, the two most powerful, first-line anti-TB drugs. MDR-

TB is treatable and curable by using second-line drugs.

Global Innovation Index (GII) 2026

News -

- The World Intellectual Property Organization **(WIPO) released the 19th Global Innovation Index 2026.**

Global Innovation Index (GII) 2026 — UPSC

- **Published by: World Intellectual Property Organization (WIPO).**
- **First Published: 2007.**
- **Objective:** Measures the **innovation capabilities and performance of economies, including research capacity, technological development and innovation ecosystems.**
- **Coverage:** Evaluates 139 economies and identifies the world's top 100 innovation clusters.

Key Highlights of GII 2026

- **Global Leader: Switzerland** retained the top position for the 16th consecutive year**, followed by Sweden and the United States.**
- **European Performance:** Europe accounted for 14 of the world's top 25 innovation economies.
- **India's Rank: 38th among 139 economies.**

India's Stakes in the Global Pandemic Agreement International

News -

- At the United Nations High Level Meeting (UN HLM), in New York, India made official remarks on the Political Declaration on Pandemic Prevention Preparedness and Response (PPPR), part of the emerging global legal regime on pandemics led by WHO-Pandemic agreement (PA).

WHO Pandemic Agreement

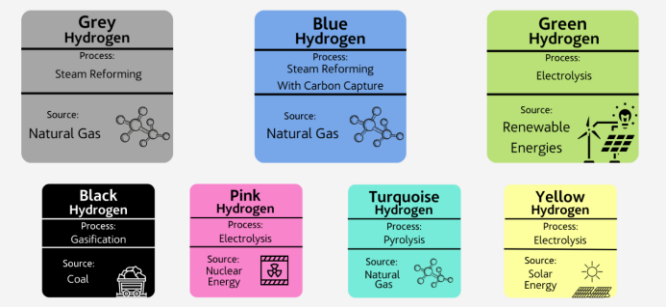
- It was **adopted by the World Health Assembly in 2025.**
- **Objective -** The aim is to negotiate a WHO convention on p**andemic prevention, preparedness and response,** that would culminate in a **legally binding international instrument.**
- Following its adoption, the next crucial step is for an Intergovernmental Working Group (IGWG) on the Pandemic Agreement **to negotiate the details of the Pathogen Access and Benefit-Sharing (PABS) system**.
- The Agreement will officially **enter into force 30 days after 60 countries have ratified it.**
- The PA was adopted by 124 member-states in 2025, including India.
- The PA is not yet open for ratification because negotiations are still ongoing for an annex concerning the Pathogen Access and Benefit-Sharing (PABS) system.

Pathogen Access and Benefit-Sharing (PABS)

- It is a crucial, **legally binding component of the WHO Pandemic Agreement.**
- It establishes **a multilateral system designed to ensure the rapid, transparent sharing of pathogens** with pandemic potential alongside the fair and equitable distribution of medical countermeasures **like vaccines, diagnostics, and treatments.**

World Hydrogen and Fuel Cell Day 2026

Science & Technology



News -

- The Ministry of New and Renewable Energy celebrated the World Hydrogen and Fuel Cell Day 2026. The day, October 8, is chosen as it corresponds to the atomic weight of hydrogen (1.008).

Hydrogen

- **Symbol and Atomic number -** Hydrogen is the chemical element with the **symbol H and atomic number 1.**
- Hydrogen is the **lightest element and the most abundant chemical substance in the universe,** constituting roughly 75% of all normal matter.
- It is c**olorless, odorless, tasteless, non-toxic, and highly combustible gas.**

Additional Information - Green Hydrogen

- **Green Hydrogen:** It is produced using electrolysis of water with electricity generated by renewable energy.
- **Benefit:** It is a clean burning element that can decarbonise a range of sectors including iron and steel, chemicals, and transportation.
- Hydrogen can be stored for long periods of time which can be used to produce electricity using fuel cells.

National Green Hydrogen Mission

- **Aim**: To make India a **global hub for the production of green hydrogen.**
- **Implementing Ministry: Ministry of New and Renewable Energy(MNRE)**

Calibrated Tightening of Monetary Policy

Economy

Context (IE):

- The **Monetary Policy Committee (MPC) of the RBI raised the policy repo rate by 25 basis points to 5.5%** and shifted its stance from neutral to calibrated tightening.

Monetary Policy Committee (MPC)

- **Established under -** The Monetary Policy Committee (MPC) constituted by the Central Government under **Section 45ZB of the Reserve Bank of India (RBI) Act, 1934.**
- **Meeting -** The MPC is required to **meet at least four times in a year.**
- **Composition:** The committee comprises **six members.**

  Out of the six members, **three are internal - including the RBI governor who chairs the committee.**
  - **RBI's deputy governor is the second internal member.**
  - The **third member is one RBI official who is nominated by the central board of RBI**. Usually, it is the executive director in-charge of monetary policy.
  - The **other three are external members who are appointed for four years.**
- **Voting:** Each member of the MPC has one vote, and in the event of an equality of votes, the **Governor has a second or casting vote.**
- **Significance of constituting the MPC:** MPC was set up consequent to the agreement reached between Government and RBI **to task RBI with the responsibility for price stability and inflation targeting.**
  - The Reserve Bank of India and Government of India signed the

Monetary Policy Framework Agreement.

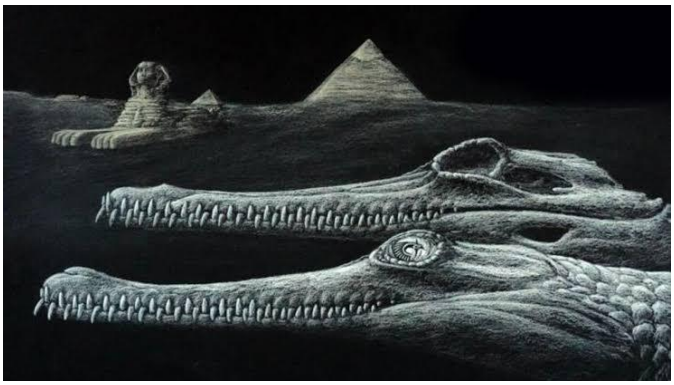
- **Functions:** The MPC determines the policy repo rate required to achieve the inflation target. It acts as a benchmark for all other interest rates in the economy.

Monetary Policy Tools in India

- **Repo Rate:** Rate at which RBI lends short-term funds to banks against collateral.
- **Reverse Repo Rate:** Rate at which RBI absorbs liquidity from banks.
- **Cash Reserve Ratio (CRR):** Portion of deposits banks must keep with RBI in cash.
- **Statutory Liquidity Ratio (SLR):** Portion of deposits kept in liquid assets (gold, cash, securities).
- **Open Market Operations (OMO):** Buying/selling of government securities to control liquidity.
- **Marginal Standing Facility (MSF)**: Emergency borrowing by banks at a penal rate.
- **Liquidity Adjustment Facility (LAF)**: Framework for repo/reverse repo operations.
- **Market Stabilisation Scheme (MSS):** Bonds issued to absorb excess liquidity.

New Extinct Relative of Gharial (Herugavialis cairensis)

Environment



News-

- Researchers identified a new extinct relative of India's gharial, named Herugavialis cairensis, from fossils found in the limestone used to carve the Great Sphinx of Giza.

Additional Information - Gharials

Characteristics:

- They show **Sexual Dimorphism** means males and females differ significantly in size and appearance.
- Unlike crocodiles, gharials **feed exclusively on warm-blooded species and are not man-eaters.**

Habitat Distribution:

- Gharials are strictly **riverine species**, requiring deep, clear, fast-flowing waters with steep, sandy riverbanks.
- Mainly **found in Chambal River, Girwa River, Ken River, Yamuna River, Brahmaputra River, Ghaghara River, Bhagirathi-Hooghly River**.

Conservation Status:

- IUCN Status: Critically Endangered
- It is listed under **Schedule 1 of the Wild Life (Protection) Act, 1972**.

Conservation programmes

- **Project Crocodile (1975): Initiative of United Nations Development Programme (UNDP) and the Food and Agriculture Organization (FAO)** and focused on captive breeding.

Black Sea

International



Context (AIR):

- India has condemned the string of attacks that have taken place in the black sea region.

About -

- **Location:** Inland sea situated between Eastern Europe and Western Asia; strategically important for maritime trade connecting Europe, the Caucasus and the Middle East.
- **Bordering Countries:** Ukraine (north), Russia (northeast), Georgia (east), Türkiye (south), Bulgaria (southwest) and Romania (west).
- **Major Rivers:** Danube, Dnieper, Dniester and Don. *Note: The Don drains into the Sea of Azov, which connects to the Black Sea through the Kerch Strait.*
- **Connection to Mediterranean Sea:** Black Sea → Bosporus Strait → Sea of Marmara → Dardanelles Strait → Aegean Sea → Mediterranean Sea.
- **Unique Feature — Anoxic Waters:** Deep waters, generally below about 150–200 metres, contain very little or no dissolved oxygen and are rich in hydrogen sulphide.
- **Ecological Significance:** Most marine life is concentrated in the upper, oxygenated layers of the sea.