KERALA STATE CIVIL SERVICE ACADEMY

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WEEKLY CURRENT AFFAIRS

MAGAZINE

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Monthly Current Affairs Magazine

JOINT PARLIAMENTARY COMMITTEE (JPC)

The Lok Sabha has extended the tenure of the Joint Parliamentary Committee (JPC) examining the 'One Nation, One Election' proposal till the Monsoon Session 2026.

About Joint Parliamentary Committee (JPC):
What it is?

- An **ad-hoc (temporary)** committee set up for a specific purpose and duration. It is dissolved once its report is submitted to the Parliament. A JPC is a powerful, ad-hoc legislative body comprising members from both Houses of Parliament, established to investigate specific issues of public importance or to scrutinize complex pieces of legislation.

Established In: While joint committees have existed since Independence, the structured committee system was formally strengthened in **1993** to ensure greater executive accountability.
Members: The size is not fixed and depends on the motion passed.

- Usually, the ratio of members is **2:1** (twice as many from Lok Sabha as from Rajya Sabha).

How it is Formed?

- A motion is moved in one House (typically Lok Sabha) and passed.
- The other House must agree to the motion.
- The members are then nominated/elected by the respective Houses.

Functions:

- **In-depth Scrutiny:** Examines specific bills (like the current 'One Nation, One Election' bill) or financial irregularities.
- **Evidence Collection:** It has the power to summon individuals, experts, or government officials to testify and can call for confidential documents.
- **Fact-Finding:** Investigates controversial matters (scams, pesticide residues, etc.) to identify regulatory loopholes.
- **Recommendations:** Suggests legislative or administrative changes to the government.

Significance

- **Bi-partisan Scrutiny:** Since it includes members from both Treasury and Opposition benches, it provides a balanced perspective on controversial issues.
- **Expert Deliberation:** It allows for a more detailed, technical discussion on bills that might not be possible on the floor of the House due to time constraints.
- **Accountability:** It acts as a check on the Executive, ensuring that government policies and actions are transparent and legally sound.

ND-FE-B (NEODYMIUM-IRON-BORON)

India has inaugurated a state-of-the-art pilot plant for manufacturing **Nd-Fe-B (Neodymium-Iron-Boron)** rare earth permanent magnets at the ARCI, Hyderabad.

About Nd-Fe-B Rare Earth Permanent Magnets:
What it is?

- A member of the rare-earth magnet family, it is a **sintered** or bonded material capable of maintaining a high magnetic force indefinitely without the need for an external power source. Nd-Fe-B magnets, often called **super magnets**, are the strongest type of permanent magnets commercially available today.

Minerals Used:

- **Neodymium (Nd):** A rare-earth element that provides high magnetic anisotropy.
- **Iron (Fe):** The primary metallic component that provides high magnetization.
- **Boron (B):** A metalloid used to stabilize the crystalline structure.

Aim of Indigenous Manufacture:

- To build a **mineral-to-market** ecosystem, covering everything from rare earth extraction to finished magnets.
- To mitigate global supply chain vulnerabilities caused by the high concentration of rare earthresources in a few countries.

How it Works?

- The pilot plant at ARCI uses an **end-to-end approach**. It begins with **strip-casting** the alloy into thin flakes, followed by pulverizing the material into a fine powder.
- This powder is then pressed in a magnetic field to align the particles and **sintered** (heated) in a vacuum to form a solid, high-density magnet.
- Finally, the material is machined and coated to produce the finished permanent magnet.

Characteristics of Nd-Fe-B Magnets:

- **Extreme Magnetic Strength:** They possess the highest energy product of any permanent magnet, allowing for very small magnets to produce very strong fields.
- **High Coercivity:** They are highly resistant to becoming demagnetized once they have been charged.
- **Temperature Sensitivity:** While powerful, their performance can decrease at very high temperatures unless specific heavy rare earths (like Dysprosium) are added.
- **Corrosion Susceptibility:** Because of the high iron content, these magnets require protective coatings (like nickel or epoxy) to prevent rusting.

Applications:

- **Electric Mobility:** Critical components in high-efficiency motors for **Electric Vehicles (EVs)**.
- **Renewable Energy:** Used in the generators of large-scale **wind turbines**.
- **Electronics:** Found in hard disk drives, smartphones, loudspeakers, and headphones.
- **Advanced Manufacturing:** Essential for robotics, industrial automation, and high-precision sensors.
- **Medical Technology:** Used in Magnetic Resonance Imaging (**MRI**) machines and other diagnostic tools.

THE INDIA BIOECONOMY REPORT (IBER) 2026

Union Minister unveiled the India BioEconomy Report (IBER) 2026 during the 14th Foundation Day of BIRAC in New Delhi.

- The report highlights that India's bioeconomy reached a record **$195.3 billion**in 2025, now contributing nearly **5% to the national GDP**.

About The India BioEconomy Report (IBER) 2026:
What it is?

- The IBER 2026 is a comprehensive annual document developed by the **Association of Biotechnology Led Enterprises (ABLE)**. It serves as the primary benchmark for measuring the growth, sectoral contributions, and startup ecosystem of India's biotechnology sector, tracking the country's progress toward its long-term economic goals.

Key Summary Points of the Report:

- **Record Market Size:** India's BioEconomy grew by **$29.6 billion** in 2025 to reach a total of **$195.3 billion**.
- **Highest Growth Rate:** The sector witnessed an **18% growth** in 2025, the highest rate recorded in recent years.
- **GDP Contribution:** The BioEconomy's share of the national GDP rose to **4.8%**, up from 4.2–4.3% in previous years.
- **Sectoral Leader:** The **BioIndustrial** segment was the largest contributor, valued at **$90.2 billion**.
- **BioPharma Strength:** This segment reached **$64.5 billion**, with significant growth expected in biosimilars and peptide manufacturing as global patents expire.
- **BioServices and Agri:** BioServices contributed **$26 billion**, while BioAgri accounted for **$14.6 billion** of the total economy.
- **GCC Expansion:** India now hosts over **150 healthcare and life sciences Global Capability Centres (GCCs)**, employing 300,000+ professionals.
- **Startup Surge:** The number of registered biotech startups rose to **11,855**, with **1,780 new startups** established in 2025 alone.

Key Opportunities in India's Bioeconomy:

- **Biosimilar and Peptide Manufacturing:** Expiry of major drug patents (e.g., GLP-1 therapies) gives India a chance to produce affordable biosimilars and dominate global pharma markets.
- **Global Capability Centres (GCCs) Expansion:** India can move from backend roles to advanced R&D, bioinformatics, and digital health innovation, enhancing value addition and global leadership.
- **BioIndustrial and BioServices Growth:** Emerging sectors like bio-manufacturing and contract research are entering a scale-up phase, enabling large industrial applications and exports.
- **Start-up Ecosystem Scaling:** With ~12,000 biotech startups and steady growth, India can convert scientific research into market-ready products and deep-tech innovations.
- **Domestic Market Contribution:** Rising GDP share (~4.8%) offers scope to integrate biotechnology across agriculture, healthcare, and industry for holistic economic growth.

Initiatives Taken So Far:

- **BIRAC Support:** The Biotechnology Industry Research Assistance Council (BIRAC) provides the necessary interface to nurture and scale biotech startups.
- **SIGHT Program:** Financial incentives for green hydrogen and electrolyzer manufacturing to bolster the BioIndustrial segment.
- **National Bio-Pharma Mission:** An industry-academia collaborative mission for accelerating biopharmaceutical development.
- **Bio-E3 Policy:** (Biotechnology for Economy, Environment, and Employment) Focusing on high-performance biomanufacturing to achieve a $1 trillion target by 2047.

Challenges Associated:

- **Intellectual Property (IP) Barriers:** While GLP-1 patents are expiring, navigating complex biosimilar litigation remains a hurdle for Indian firms.
- **Global Work Distribution:** Multinational companies are distributing research across global networks, which can lead to brain drain if domestic high-end roles aren't created.
- **High Capital Intensity:** Biotech startups require long-term funding; while 1,780 new ones launched in 2025, sustaining them through clinical trials is difficult.
- **Regulatory Complexity:** Expanding analytics and regulatory functions in GCCs requires a highly specialized workforce that keeps pace with changing global standards.
- **Sectoral Imbalance:** The BioAgri segment ($14.6B) is significantly smaller than the BioIndustrial segment ($90.2B), showing a lag in agricultural biotech adoption.

Way Ahead:

- **Collaborative Ecosystem:** Strengthen the Sustained collaboration between government, academia, and industry to translate lab research into market-ready technology.
- **Biosimilar Leadership:** Leverage the upcoming patent cliff to establish India as a global hub for peptide and biosimilar manufacturing.
- **Expanding GCC Functions:** Transition GCCs from support roles to core hubs for data analytics, bioinformatics, and digital health platforms.
- **Incentivizing Startups:** Provide targeted fiscal support to the nearly 12,000 registered startups to move beyond the establishment phase.
- **Focus on 2047 Vision:** Align all sectoral policies toward the long-term goal of building a **$1 trillion BioEconomy** by 2047.

India's BioEconomy has entered a transformative phase, shifting from a niche sector to a primary driver of national GDP at nearly 5%. With a robust startup ecosystem and leadership in BioPharma, the nation is well-positioned to meet its ambitious $1 trillion goal. Sustaining this 18% growth through strategic collaboration will be essential to cement India's status as a global biotechnology leader.

PROJECT INSIGHT (PI) INITIATIVE

Context: India's use of Artificial Intelligence (AI) in tax governance, particularly through the Project Insight (PI) initiative, has gained attention for improving compliance and revenue mobilisation.

About Project Insight (PI) initiative:
What it is?

- Project Insight is an AI-driven tax administration system that uses big data analytics to track financial transactions and detect tax evasion.

Organisation:

- Implemented by the **Income Tax Department (ITD),** Ministry of Finance, Government of India.

Aim:

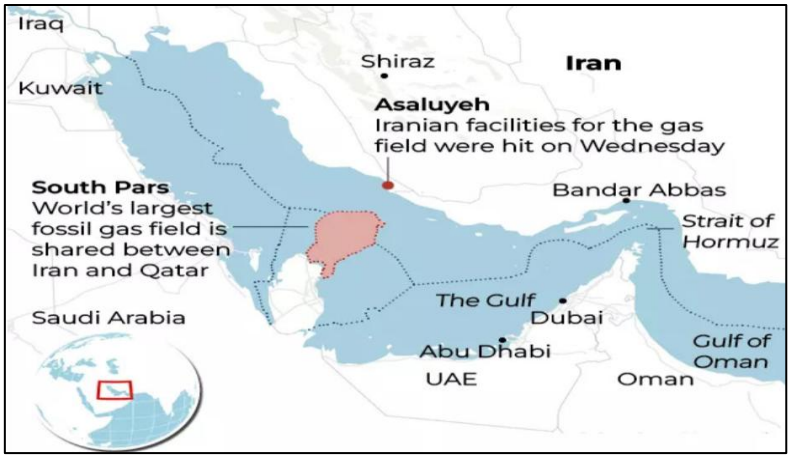
- **Enhance voluntary tax compliance:** Encourage taxpayers to report accurate income through data-based nudges.
- **Strengthen tax enforcement:** Identify high-risk cases of tax evasion using AI and analytics.

Key Features

- **INTRAC (Analytics Engine):** Uses AI to create a 360° financial profile of taxpayers from multiple data sources.
- **NUDGE Strategy:** Sends non-intrusive reminders (SMS/email) to correct discrepancies in tax returns.
- **Automated Risk Assessment:** Prioritises cases based on risk level and scale of evasion, improving efficiency.

RAS LAFFAN AND SOUTH PARS

The West Asian conflict has escalated significantly following Israeli strikes on Iran's South Pars gas field and retaliatory Iranian missile attacks on Qatar's Ras Laffan LNG facilities.



About Ras Laffan Industrial City:
What it is?

- Ras Laffan is the world's largest Liquefied Natural Gas (LNG) export hub, housing major liquefaction plants and export terminals.

Located in: Northeastern **Qatar**, along the **Persian Gulf coast**
Origin:

- Ras in Arabic means headland or cape, indicating its coastal geographic position
- Developed as a strategic LNG export hub by QatarEnergy

Key Features:

1. **Global LNG hub:** Accounts for nearly **20% of global LNG supply**.
2. **Integrated infrastructure:** Houses liquefaction plants, storage tanks, export terminals.
3. **QatarEnergy base:** Core operational center for **Qatar's LNG exports**.
4. **High export capacity:** Over 77–80 million tonnes per annum LNG production.

Importance:

- Critical supplier of LNG to countries like **India, Japan, Europe**.
- Key node in **global gas supply chains**.
- Supplies ~**40% of India's LNG imports**.

About South Pars Gas Field:

- The **world's largest natural gas field**, shared between Iran (South Pars) and Qatar (North Field).

Located in:

- Beneath the **Persian Gulf**, shared by:
    - Iran (South Pars)
    - Qatar (North Field)

Origin:

- South Pars refers to the southern portion of the larger gas reservoir located in Iranian territory
- Pars is derived from Persia (ancient Iran)

Key Features:

1. Largest gas reserve: Holds one of the world's biggest proven natural gas reserves.
2. Shared resource: Divided between Iran (South Pars) and Qatar (North Field).
3. Offshore extraction: Consists of multiple offshore platforms and processing units.
4. Energy backbone: Central to Qatar's LNG dominance and Iran's gas economy.

UN COMMISSION ON THE STATUS OF WOMEN (CSW)

The UN Commission on the Status of Women (CSW) concluded its 70th session on March 19, 2026, where 190 member states adopted historic Agreed Conclusions.

About the UN Commission on the Status of Women:

What it is?

- A functional commission of the **Economic and Social Council (ECOSOC)**and the primary organ for global policy-making on women's rights.
- The CSW is the principal global intergovernmental body exclusively dedicated to the promotion of gender equality and the empowerment of women.

Established In: June **1946**, shortly after the founding of the United Nations.

Aim: To promote women's rights in political, economic, civil, social, and educational fields and to ensure that gender equality is integrated into all UN activities and national policies.

Key Functions:

1. **Setting Global Standards:** It formulates policies, standards, and norms that define the rights of women and girls globally, such as the landmark **Beijing Declaration (1995)**.
2. **Monitoring Progress:** It reviews the implementation of international agreements by member states and monitors the progress of the **2030 Agenda for Sustainable Development** (specifically SDG 5).
3. **Thematic Policy Development:** Each year, the commission focuses on a priority theme to create actionable strategies for member states.
4. **Advocacy and Awareness:** It provides a high-level platform for heads of state, NGOs, and civil society to highlight emerging issues affecting women, such as digital exclusion or climate impact.
5. **Addressing Crisis Contexts:** The commission brings global attention to the highest price paid by women in conflict zones, from Afghanistan and Gaza to Ukraine and Sudan.
6. **Coordination and Accountability:** It supports the work of **UN Women** in coordinating the UN system's gender-related activities and ensuring institutional accountability.

Key Outcomes of the Agreed Conclusions:

1. **Mandatory Reform of** Discriminatory Laws**:** States must amend laws on marriage, property, and family to eliminate gender bias, ensuring women achieve equal legal rights and protection.
2. **Formal Recognition of Community Justice:** Paralegals and community justice workers are formally integrated into legal systems to improve access for rural women.
3. **Digital Justice and** AI Governance**:** Promotes use of technology for justice delivery while regulating AI biases and tackling tech-enabled gender violence.
4. **Survivor-Centered Justice in Crisis Contexts:** Ensures trauma-informed, accessible justice systems for victims of violence, especially in conflict and humanitarian situations.
5. **Universal Access to** Sexual and Reproductive Health**:** Reaffirms women's rights to healthcare and reproductive autonomy as essential for dignity, equality, and justice.

BHARAT AUDYOGIK VIKAS YOJNA

The Union Cabinet has approved the Bharat Audyogik Vikas Yojna (BHAVYA) with an outlay of ₹33,660 crore to develop 100 plug-and-play industrial parks across India.

About Bharat Audyogik Vikas Yojna (BHAVYA):

What it is?

- BHAVYA is a centrally approved industrial infrastructure scheme aimed at developing 100 world-class plug-and-play industrial parks with ready-to-use facilities, enabling industries to start operations quickly without procedural delays.

Nodal Ministry: Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce & Industry

Implementing Agency: National Industrial Corridor Development Corporation (NICDC) **Aim:**

- To accelerate manufacturing-led economic growth.
- To enhance ease of doing business through pre-approved infrastructure.
- To promote cluster-based industrial development and strengthen domestic supply chains.
- To generate large-scale employment and attract investments.

Key Features:

1. **Plug-and-play infrastructure:** Pre-approved land, utilities, and clearances enable industries to move from intent to production rapidly.
2. **Large-scale industrial parks:** Development of parks ranging from **100–1000 acres** across all States and UTs.
3. **Financial support:**
    - Up to **₹1 crore per acre** for core, value-added, and social infrastructure
    - Up to **25% support for external connectivity infrastructure**

4. **Integrated infrastructure ecosystem:**
    - Core: roads, drainage, underground utilities, ICT systems
    - Value-added: factory sheds, testing labs, warehousing
    - Social: worker housing and amenities
5. **Ease of doing business reforms:**
    - Single-window clearance systems
    - State-led investor-friendly reforms
6. **Challenge-based project selection:** Ensures only investment-ready and reform-oriented proposals are approved.
7. **Alignment with PM GatiShakti:** Enables multimodal connectivity and efficient logistics integration.
8. **Sustainable industrial development:**
    - Green energy integration
    - Underground utility corridors (no-dig model)

Significance:

- Strengthens India's position as a global manufacturing hub.
- Creates lakhs of direct and indirect jobs across industries and services.
- Reduces entry barriers, making India more attractive to domestic and global investors.

RISA: TIMELESS TRIBAL

The Ministry of Tribal Affairs has launched RISA: Timeless Tribal, a premium signature brand to promote tribal crafts and textiles.

About RISA: Timeless Tribal:

What it is?

- RISA: Timeless Tribal is a premium national brand for tribal textiles, embroidery, and handicrafts, designed to showcase India's indigenous craftsmanship in domestic and global premium markets while preserving cultural heritage.

Nodal Ministry: Ministry of Tribal Affairs
Implementing Agency: TRIFED (Tribal Cooperative Marketing Development Federation of India)

The first phase of the RISA launch features a curated selection of some of India's most iconic weaves and crafts.

S. No.	Weaves/ embroidery	Communities Involved	State/UT
1.	Eri silk	Bodo	Assam
2.	Santal cotton	Santal	Jharkhand
3.	Changpa Pashmina	Changpa	Ladakh
4.	Kotpad cotton	Mirgan	Odisha
5.	Muga silk	Miri (Mising)	Assam
6.	Dongria embroidery	Dongria Kondh	Odisha
7.	Toda embroidery	Toda	Tamil Nadu

Aim:

- To preserve and promote tribal weaves, embroidery, and crafts.
- To support Vocal for Local and Atmanirbhar Bharat through value addition.

Key Features:

- **Premium branding approach:** Positions tribal products in high-end domestic and international markets.
- **Cluster-based development:** First phase covers **10 clusters** including weaves, embroidery, and crafts across states.
- **Design intervention:** Introduction of **modern designs and product innovation** while retaining traditional essence.
- **Capacity building:** Skill training and upskilling of artisans to produce high-value, export-ready products.
- Infrastructure support: Development of weaving clusters and stitching unitsfor integrated production.
- Sustainable packaging: Eco-friendly premium packaging developed by NID for global market appeal.
- Strategic designer partnerships: Collaboration with leading designers to bridge tradition with contemporary fashion.
- **Diverse craft inclusion:** Covers iconic tribal products like:

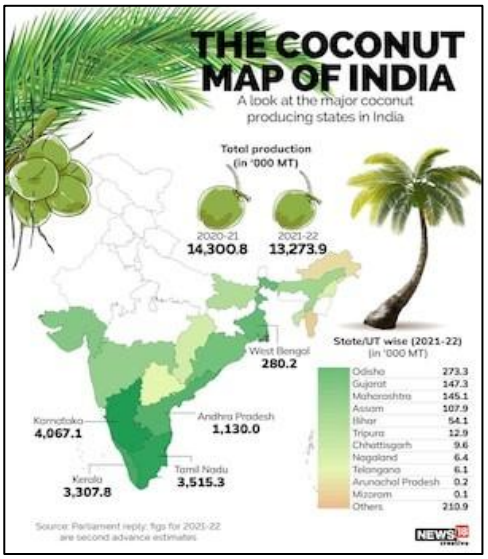
    1. Eri silk (Assam)
    2. Pashmina (Ladakh)
    3. Dokhra art (Chhattisgarh)
    4. Toda embroidery (Tamil Nadu)

Significance:

- Enhances income and livelihood security of tribal artisans, especially women.
- Safeguards endangered tribal art forms and traditional knowledge systems.
- Bridges the gap between local craftsmanship and global demand.

COCONUT PROMOTION SCHEME

The Government of India highlighted India's position as the **largest global coconut producer** (30.37%).



Simultaneously, the **Coconut Promotion Scheme** announced in Union Budget 2026–27 is currently under formulation to enhance productivity and competitiveness.

About Coconut Promotion Scheme:
What it is?

- A central sector initiative aimed at enhancing coconut productivity, quality, and value addition across major coconut-growing regions.

Announced in:

- Union Budget 2026–27, under a broader ₹350 crore allocation for high-value crops (coconut, cashew, cocoa).

Aim:

- To increase production and productivity while improving farmers' income and global competitiveness.

Key Features:

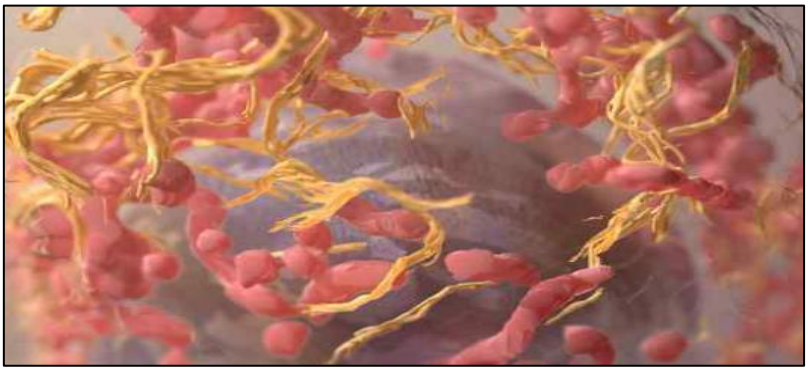
- **Replantation & Rejuvenation:** Replacement of old, senile, and low-yielding coconut trees with high-yielding varieties.
- **Improved Varieties:** Promotion of **disease-resistant and climate-resilient coconut cultivars**.
- **Productivity Enhancement:** Focus on better agronomic practices, irrigation, and nutrient management.
- **Value Addition:** Encouragement for processing, branding, and export of coconut-based products.
- **Farmer Support:** Strengthening livelihoods of coconut farmers through targeted interventions.
- **Scheme Status:** Currently **under formulation**; State/UT-wise fund allocation yet to be finalized.

India and coconut production stats:

Parameter	Data
Global Rank	1st (Largest producer globally)
Share in Global Production	30.37%
Area under Cultivation (India)	2165.20 thousand hectares
Global Area	~12390 thousand hectares
Annual Production	21373.62 million nuts
Average Productivity	9871 nuts/hectare
Livelihood Dependence	~30 million people (including ~10 million farmers)

CHOLESTEROL INCREASES RISK OF CANCER

A recent study by the U.S. National Institutes of Health discovered that high cholesterol levels in the nuclear envelope make the cell nucleus squishy, facilitating the spread of melanoma.



About High Cholesterol Helps Cancer Spread:

What is happening?

- It stores DNA and directs all cell activities, like a command hub.
- The nucleus is surrounded by a delicate membrane acting like a flexible shell.
- Excess cholesterol makes this shell softer and more deformable (squishy).

How does this help cancer spread?

- **Easier movement:** Softer nucleus allows cancer cells to squeeze through tight tissue gaps easily.
- **Weak outer layer:** High cholesterol makes the nuclear membrane fragile and prone to damage.
- **DNA damage:** Tears in the membrane expose DNA, causing mutations that worsen cancer.

Role of LBR (Lamin B Receptor):

- **LBR protein location:** It sits in the nuclear membrane and connects DNA to the nucleus wall.
- **Dual function:** It helps both in DNA attachment and cholesterol production inside the cell.

In cancer cells:

- **Excess LBR production:** Cancer cells overproduce LBR, increasing cholesterol inside the nucleus.
- **Structural impact:** This makes the nucleus softer and weaker, aiding cancer spread.
- **Clinical link:** Higher LBR levels are associated with more aggressive and severe cancers.

What happens in such cancer cells?

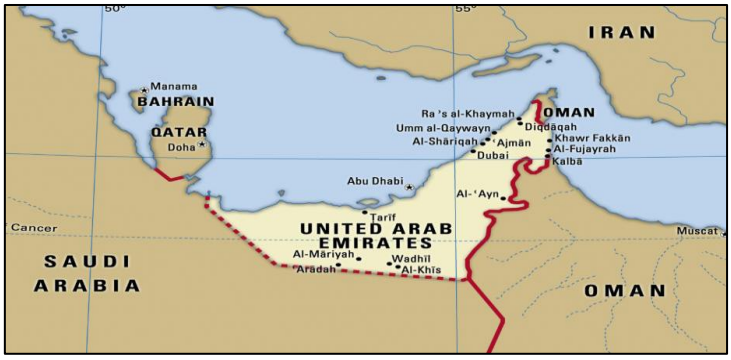
- **Rapid growth:** Cells divide uncontrollably due to accumulated genetic changes.
- **Survival advantage:** They adapt better to low nutrients and stressful environments.
- **Enhanced spread:** Softer structure helps them invade nearby tissues and distant organs.
- **Frequent damage:** Fragile nuclei tear often, increasing mutation rates further.

Treatment & Future Possibilities

- **Targeting LBR:** Blocking LBR may reduce cholesterol buildup and slow metastasis.
- **Lowering cholesterol:** Reduced cholesterol strengthens the nucleus and limits invasiveness.
- **Statins effect:** Cholesterol-lowering drugs are linked with slower cancer progression.

FUJAIRAH PORT AND THE SHAH GAS FIELD

Recent missile/drone attacks on Fujairah port and the Shah gas field in the UAE have disrupted oil loading and gas operations.



About Port of Fujairah:
What it is?

- A major deep-water, multipurpose port and global oil storage/bunkering hub serving as a critical export outlet for UAE's hydrocarbons.

Located in: Fujairah Emirate, United Arab Emirates (UAE) on the eastern coast.
Sea Open to:

- Directly opens into the **Gulf of Oman / Arabian Sea**, bypassing the Strait of Hormuz.

History:

- Construction began in **1978**; became operational in 1983 as part of UAE's economic diversification strategy.
- Gradually expanded into one of the largest oil storage and bunkering hubs globally.

Key Features:

- **Strategic Bypass Route:** Linked to Abu Dhabi via **ADCOP pipeline**, enabling crude export without passing through Hormuz.
- **Massive Storage Capacity:** Oil storage expanded from 0.55 million cbm (1994) to ~18 million cbm.
- **Bunkering Hub:** Among the top 3 global bunkering hubs, serving international shipping.
- **Advanced Infrastructure:** Over 9.5 km quay length, modern terminals for crude, refined products, and container cargo.
- **High Maritime Activity:** Around 12,000 vessels annually; ~174 anchorage positions.
- **Integrated Industrial Zone:** Hosts **Fujairah Oil Industrial Zone (FOIZ)** and multiple global oil companies.

Significance:

- Provides UAE an alternative export route outside Hormuz choke point.
- Connects Middle East energy flows to Asia, Africa, and global markets.

EXERCISE SEA DRAGON

The Indian Navy has deployed a P-8I maritime patrol aircraft to Guam to participate in the Exercise Sea Dragon.

About Exercise Sea Dragon:

What it is?

- Exercise Sea Dragon is a US-led multinational anti-submarine warfare (ASW) exercise conducted in the Western Pacific Ocean near Guam.

Established in:

- Initiated by the **United States Navy** as an **annual multinational ASW training exercise** to strengthen Indo-Pacific maritime security cooperation.

Aim:

- Enhance anti-submarine warfare proficiency among participating navies.
- Improve interoperability and coordination between maritime patrol aircraft.
- Strengthen cooperation to ensure a free, open, and secure Indo-Pacific maritime domain.

Member Nations:
Participants typically include maritime forces from key Indo-Pacific partners:

- Indian Navy
- United States Navy
- Japan Maritime Self-Defense Force
- Royal Australian Air Force
- Royal New Zealand Air Force

Key Features:

- **Anti-Submarine Warfare Training:** Participants conduct tracking and detection of simulated and live submarines, strengthening underwater surveillance capabilities.
- **Maritime Patrol Aircraft Operations:** The exercise primarily uses long-range maritime patrol aircraft such as the P-8 Poseidon and P-1 aircraft equipped with advanced sensors and data-link systems.
- **Integrated Tactical Planning:** Aircrews conduct tabletop planning sessions and coordinated missions to develop joint ASW tactics.
- **Performance Evaluation:** Participating teams are assessed on speed, accuracy, and operational coordination, with the best-performing team awarded the Dragon Belt.
- **Extensive Flight Training:** The exercise includes **over 200 hours of cumulative in-flight training**, improving operational readiness.

Significance:

- Strengthens Indo-Pacific maritime security cooperation among allied nations.
- Enhances the Indian Navy's submarine detection and surveillance capabilities in the Indian Ocean Region.

FIRST NATIONAL REPORT (NR1) ON THE IMPLEMENTATION OF THE NAGOYA PROTOCOL

India has submitted its First National Report (NR1) on the implementation of the Nagoya Protocol to the Convention on Biological Diversity Secretariat.

About India's First National Report on Implementation of the Nagoya Protocol:
What it is?

- India's First National Report (NR1) is an official submission to the Convention on Biological Diversity (CBD) detailing the country's implementation of the Nagoya Protocol on Access and Benefit Sharing (ABS).
- The report was prepared by **the Ministry of Environment, Forest and Climate Change** in collaboration with the National Biodiversity Authority.

Key Summary:

- **Reporting Period:** The report covers the period from 1 November 2017 to 31 December 2025.
- **Community Participation:**
  - **2,76,653 Biodiversity Management Committees** have been established across India.
- **ABS Approvals:**
  - **12,830 approvals** issued during 2017–2025.
    - **5,913 approvals** by NBA (research, commercial use, IPR etc.).
    - **6,917 approvals** by SBBs/UTBCs for commercial utilisation.
- **Benefit Sharing:**
  - **₹216.31 crore mobilised** through NBA approvals.
  - **₹139.69 crore distributed** to local communities, farmers and traditional knowledge holders.

About Nagoya Protocol:
What it is?

- The Nagoya Protocol is a supplementary agreement to the Convention on Biological Diversity (CBD).
- It provides a legal framework for access to genetic resources and fair sharing of benefits arising from their use.

Launched / Adopted in:

- Adopted: 29 October 2010 in Nagoya
- Entered into force: 12 October 2014

Aim:

- Ensure fair and equitable sharing of benefits arising from genetic resources.
- Promote biodiversity conservation and sustainable use.
- Protect traditional knowledge associated with genetic resources.

Key Features:

- **Access to Genetic Resources:** Countries must establish **clear rules and procedures** for accessing genetic resources.
- **Prior Informed Consent (PIC):** Users must obtain **prior informed consent** from the provider country before using genetic resources.
- **Mutually Agreed Terms (MAT):** Benefit-sharing must occur based on **mutually agreed contractual terms**.
- **Benefit Sharing Mechanism:** Benefits may be monetary (royalties, payments) or non-monetary (technology transfer, research collaboration).
- **Compliance Mechanisms:** Countries must monitor the utilisation of genetic resources across the research and commercialization chain.
- **Protection of Traditional Knowledge:** Ensures indigenous and local communities receive benefits when their knowledge is used.

SAFE DISPOSAL OF UNUSED MEDICINES

The United Nations Environment Programme (UNEP) has released a new report, *Safe Disposal of Unused Medicines*, highlighting that improper disposal poses grave risks to environmental and public health.

About UNEP Safe Disposal of Unused Medicines Report:

What it is?

- This 2026 publication provides a comprehensive, multisectoral framework using a **One Health approach** to strengthen national systems for the safe disposal of human and veterinary medicines.
- It focuses on integrating waste prevention, take-back schemes, legal frameworks, and awareness-raising across the healthcare, agriculture, and household sectors.

Key Findings in the Report:

- **Environmental Risks:** Improper disposal is a major driver of antimicrobial resistance (AMR), endocrine disruption, and toxicity in ecosystems.
- **High Wastage Rates:** Globally, it is estimated that up to 50% of household medications eventually become waste.
- **Economic Impact:** The unused medicine management market is projected to reach **US$2.54 billion by 2032** due to rising healthcare expenditures and drug use.
- **Ineffective Treatment:** Current wastewater treatment plants are generally ineffective at fully removing pharmaceutical pollutants.
- **Health Threats:** Bacterial AMR was directly responsible for **1.27 million deaths globally** in 2019.
- **Prevention Efficiency:** In the Netherlands, it is estimated that 40% of unused medicine generation could be averted through better prevention.
- **Hazardous Composition:** Unused medicines account for approximately 3% of hazardous healthcare waste globally.
- **Redistribution Potential:** About 19% of unused medicines in certain contexts could potentially be redistributed if they meet strict quality criteria.

Methods for Disposal of Medical Waste:

- **High-Temperature Incineration:** The optimal method for hazardous waste, involving combustion at temperatures between 800-1200°C with flue gas cleaning.
- **Waste Immobilization:** Processes like **encapsulation** or inertization that entrap hazardous waste in a solid mass to prevent leaching into the environment.
- **Engineered Landfills:** Final disposal sites that use engineered systems to ensure the long-term confinement and control of hazardous residues.
- **Co-processing:** Utilizing high-temperature industrial processes, such as cement kilns, to destroy pharmaceutical waste effectively.

Challenges Associated with Disposal of Medical Waste:

- **Lack of Public Awareness:** Many consumers are unaware of the environmental harm caused by improper disposal.

Example: A study in Indonesia found that **53.1% of respondents** did not know improper disposal could harm health and the environment.

- **Infrastructure Gaps:** Rural and remote areas often lack the necessary facilities for treating hazardous waste.

Example: In Indonesia, compliance is difficult because rural regions lack adequate incineration facilities.

- **Inadequate Regulations and Enforcement:** Global systems are fragmented, with many countries lacking dedicated legal mandates for take-back schemes.

Example: Germany has no nationally mandated scheme, relying instead on voluntary local pharmacy collections.

- **Financial and Resource Constraints:** High costs of advanced treatment technologies hinder implementation in lower-income settings.

Example: Advanced oxidation processes for wastewater are efficient but remain expensive for many countries.

- **Risks During Emergencies:** Humanitarian crises lead to accumulations of unneeded or short-expiry donated drugs.

Example: Quantities of waste grow due to **mismatched donations** and excess supplies beyond local needs during emergencies.

UNEP Recommendations:

- **Strengthen Disease Prevention:** Improve WASH, biosecurity, and vaccination programs to reduce the initial need for medicines.
- **Implement Stepwise Take-Back Schemes:** Develop national programs for households and farms to return unused drugs for safe treatment.
- **Enact Legal Frameworks:** Establish Extended Producer Responsibility (EPR) to shift the financial burden of waste management to producers.
- **Promote Appropriate Use:** Use unit-dose packaging and better diagnostics to prevent over-prescription and patient stockpiling.
- **Enhance Transparency and Monitoring:** Use digital tools and integrated surveillance systems to track medicine consumption and disposal outcomes.

The UNEP report underscores that safely managing unused medicines requires a collaborative **One Health** effort to prevent chemical and AMR pollution at the source. By combining robust legal frameworks like EPR with nationwide awareness and accessible take-back schemes, countries can significantly mitigate the environmental and public health risks of pharmaceutical waste.

GLACIER MELTING

A new ISRO study published in NPJ Natural Hazards reveals that the August 2025 Dharali flash flood in Uttarakhand was triggered by the collapse of an exposed ice patch on the Srikanta Glacier.

- The findings shift the focus of disaster monitoring from large glacial lakes to smaller, overlooked instabilities in the cryosphere caused by rapid deglaciation.

About Melting Glaciers Greater Threat:
What it is?

- Glacier melting (deglaciation) refers to the reduction in the volume and mass of a glacier's ice due to ablation (melting and sublimation) outstripping the accumulation of new snow. As temperatures rise, the protective layer of seasonal snow and firn (intermediate ice) thins, exposing older, unstable ice patches to the elements.

Data and Facts on Glacier Melting:

- **Accelerated Rate:** Himalayan glaciers have been losing ice at an average rate of nearly 0.5 meters of vertical height per year since 2000.
- **Global Warming Impact:** The Hindu Kush Himalaya (HKH) region is warming at a rate higher than the global average, leading to a projected loss of up to 75% of glacier volume by 2100.
- **Water Insecurity:** Over 1.3 billion people depend on the 10 major rivers originating from the Himalayas; melting glaciers initially increase flow but lead to long-term water scarcity.
- **Increased Hazard Frequency:** The frequency of Glacial Lake Outburst Floods (GLOFs) and ice-patch collapses has tripled in the last two decades.

Factors Contributing to Glacier Melting:

- **Rising Atmospheric Temperatures:** Global warming reduces the insulating snow cover, exposing the darker ice beneath.

Example: The **Srikanta Glacier** saw its firn cover thin significantly before the 2025 flood due to record summer temperatures.

- **Black Carbon Deposition:** Pollutants from biomass burning and vehicle emissions settle on glaciers, absorbing sunlight and accelerating melt.

Example: High levels of black carbon have been recorded near the **Gangotri Glacier**, leading to faster recession than in neighboring regions.

- **Changes in Precipitation Patterns:** Shift from snowfall to rainfall at high altitudes prevents the recharging of glaciers.

Example: Reduced winter snowfall in **Ladakh** has led to the drying up of several small peripheral glaciers that local farmers rely on.

- **Infrastructural Development:** Tunnelling and road construction in fragile eco-zones create localized heat islands and vibrations.

Example: The **Char Dham road project** in Uttarakhand has faced criticism for increasing slope instability near glaciated zones.

- **Nivation and Geomorphic Changes:** Alternate freezing and thawing erode the ground beneath snowbanks, creating nivation hollows that eventually collapse.

Example: The **Dharali flash flood** was specifically linked to the collapse of an ice patch within such a hollow on steep northeast-facing slopes.

Initiatives Taken:

- **National Mission for Sustaining the Himalayan Ecosystem (NMSHE):** A part of India's Climate Change Action Plan focused on monitoring forest cover and glacier health.
- **ISRO Satellite Monitoring:** Use of high-resolution imagery (like RISAT and Cartosat) to map over 9,500 Himalayan glaciers and track GLOF risks.
- **Indo-Swiss Collaboration:** Joint research programs (CAPH) aimed at improving climate resilience and glaciology expertise in the Indian Himalayas.
- **Early Warning Systems (EWS):** Installation of sensor-based EWS in high-risk zones like the Rishiganga and Dhauliganga valleys following the 2021 disaster.

Challenges Associated:

- **Remote and Rugged Terrain:** Difficulty in installing and maintaining ground-based monitoring equipment at high altitudes.

Example: Reaching the **Srikanta peak** for manual data verification is hazardous due to its avalanche-prone 6,133 m height.

- **Lack of Historical Data:** Incomplete records make it difficult to predict black swan events like ice-patch collapses.

Example: Until the **2025 Dharali event**, ice-patch collapse was an under-recognized hazard compared to GLOFs.

- **Transboundary Management:** Glaciers span borders (India, China, Pakistan), making data sharing and coordinated disaster response difficult.

Example: Tensions along the **LAC** often limit the ability of scientists to conduct comprehensive field studies on transboundary glaciers.

- **Socio-Economic Vulnerability:** Communities live in narrow valleys where even a small flood can be catastrophic.

Example: Dharali village is split by the Khir Gad stream, making its residents highly vulnerable to sudden surges from the glacier above.

- **Unpredictable Micro-Climates:** High-altitude weather can change in minutes, bypassing regional forecasts.

Example: The **2021 Chamoli rock-ice avalanche** occurred on a clear day, catching authorities off-guard as there was no heavy rain to signal danger.

Way Ahead:

1. **Integrated Monitoring:** Combine satellite data with ground-based sensors to monitor smaller nivation hollows and ice patches.
2. **Community-Led Warning:** Train local populations in high-altitude villages to recognize landscape signals, such as the sudden exposure of dark ice.
3. **Climate-Resilient Infrastructure:** Enforce strict environmental audits for all construction projects within 50 km of the glaciated line.
4. **Regional Cooperation:** Establish a Himalayan Council for real-time data sharing on glacier health across neighboring countries.
5. **Nivation Mapping:** Systematically identify and monitor north-facing steep slopes as geomorphologically sensitive zones.

The Dharali disaster proves that Himalayan hazards are evolving beyond traditional glacial lake outbursts to more subtle cryospheric collapses. As deglaciation exposes unstable ice patches, the ridge-to-valley monitoring approach must become the new standard for disaster risk reduction. Protecting these fragile ecosystems is no longer just an environmental goal but a critical necessity for the safety of millions living downstream.

PINAKA MULTI-BARREL ROCKET LAUNCHER (MBRL) SYSTEM

The Indian Army has operationalized its seventh Pinaka regiment and is currently raising an eighth, with plans to reach ten regiments by next year.

About The Pinaka Multi-Barrel Rocket Launcher (MBRL) System:
What it is?

- Pinaka is an indigenous, multi-barrel rocket launcher (MBRL) system capable of firing a salvo of 12 rockets in under 44 seconds. It is a high-volume, area-saturation weapon designed to neutralize enemy troop concentrations and infrastructure over large areas.

Developed By: the Armament Research and Development Establishment (ARDE).
Aim:

- The primary objective of the Pinaka system is to provide the Indian Army with deep-strike capability, allowing it to destroy enemy communication hubs, logistics depots, and artillery gun positions well behind the front lines.

Key Features of the System:

- **Rapid Fire Capability:** A single battery of six launchers can fire 72 rockets in just 44 seconds, covering an area of roughly 1,000 by 800 meters.
- **Range Variants:** The system is versatile, featuring Mk-I (38 km), Mk-II ExtendedRange (60 km), and Guided variants (75–90 km).
- **High Precision:** Guided Pinaka rockets utilize an Integrated Navigation System (INS) combined with GPS/NavIC for pinpoint accuracy.
- **Mobility:** The launchers are mounted on high-mobility Tatra trucks, allowing for shoot-and-scoot tactics to avoid enemy counter-fire.
- **Automation:** Equipped with an Automated Gun Aiming and Positioning System (AGAPS) and a computerized fire control system for quick deployment.
- **Extreme Weather Resilience:** The system is designed to operate in diverse Indian terrains, from the high-altitude cold of Ladakh to the intense heat of the Thar Desert.

Significance:

- The Pinaka system is strategically vital as it reduces India's dependence on Russian Smerch and Grad systems.
- With the development of the Long-Range Guided Rocket (LRGR), which recently hit targets at 120 km, India is building a formidable Rocket Force capable of matching the integrated artillery networks of the PLA along the Line of Actual Control (LAC).

SUJAL GAON ID

The Union Ministry of Jal Shakti has launched Sujal Gaon ID, a unique digital identifier for mapping rural piped water supply schemes across India.

About Sujal Gaon ID:
What it is?

- Sujal Gaon ID is a scheme-based unique digital identifier assigned to each rural piped drinking water supply scheme in India.

- It enables digital mapping of rural water supply assets and service areas, integrating them into a unified national water management platform.

Launched Under:

- It has been introduced under **Jal Jeevan Mission 2.0**, the flagship programme aimed at providing Functional Household Tap Connections (FHTCs) to all rural households.

Aim:

- To digitally map and monitor rural drinking water infrastructure across India.
- To strengthen transparency, service delivery, and evidence-based decision making in rural water governance.

Key Features:

- **Unique Digital Identification –** Every rural drinking water scheme is assigned a **distinct Sujal Gaon ID**, ensuring traceability of assets and services.
- **Integration with Sujalam Bharat Platform –** The ID is linked with **Sujalam Bharat IDs**, combining infrastructure ID and service-area ID for complete mapping of water supply systems.
- **National Digital Architecture –** Creates a **source-to-tap digital monitoring system** for rural water supply schemes across the country.
- **Real-time Monitoring and Data Governance –** Enables governments to track scheme performance, infrastructure status, and service delivery outcomes in real time.
- **Wide Coverage –** Around **1.64 lakh Sujal Gaon IDs across 31 States and UTs**have already been generated and linked with **67,000 Sujalam Bharat IDs**.

Significance:

- Digital mapping reduces leakages and improves monitoring of rural water infrastructure.
- Data-driven tracking helps policymakers plan maintenance, expansion, and water security strategies.
- Ensures efficient operation and maintenance of piped water supply systems.

MEGAMALAI WILDLIFE SANCTUARY

The Zoological Survey of India (ZSI) recently documented nine new species, including jumping spiders and damselflies, at the Megamalai Wildlife Sanctuary.

About Megamalai Wildlife Sanctuary:

What it is?

- Megamalai Wildlife Sanctuary is a protected landscape in Tamil Nadu, often referred to as the High Wavy Mountains. Since 2021, it has been a core component of the **Srivilliputhur–Megamalai Tiger Reserve (SMTR)**, which is India's 51st tiger reserve.

Established In: The sanctuary was formally part of the SMTR notification in **2021**, though its Eco-Sensitive Zone was previously gazetted in **2018**.

Habitat:

The sanctuary is a mosaic of diverse ecosystems, including:

- Montane Shola Forests and high-altitude grasslands.
- Tropical Wet Evergreen Forests.
- Tea and Cardamom Plantations interspersed with natural vegetation.

Rivers Flowing Through:
The landscape acts as a critical watershed for southern Tamil Nadu. Key rivers include:

- **Vaigai:** The lifeline of several southern districts.
- **Suruliyaru and Shanmuganathi:** Major tributaries that converge at the Vaigai Dam.
- **Ephemeral Streams:** Includes Arjuna Nadhi, Mudangiar, and Gundar, which support local agriculture and drinking water needs.

Key Features:

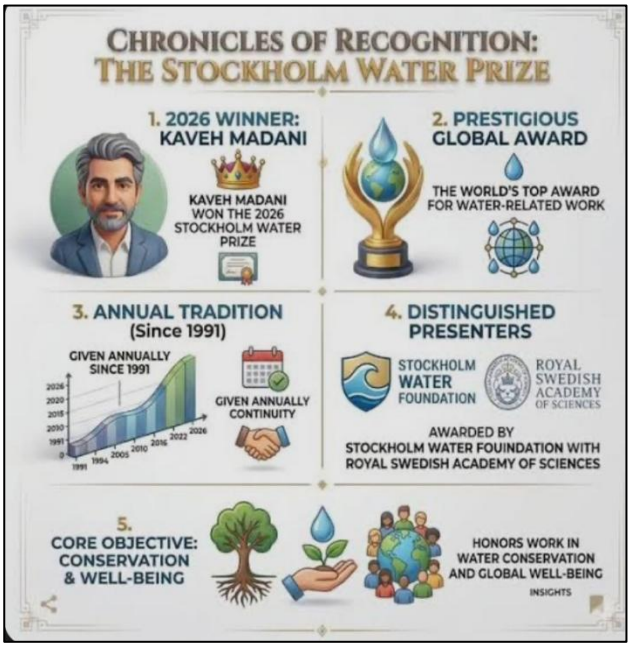
- **Strategic Location:** It forms a continuous elephant and tiger corridor connecting the Periyar Tiger Reserve in Kerala with the Grizzled Giant Squirrel Sanctuary in Srivilliputhur.
- **Bio-Indicators:** The presence of specific mayflies and amphibians serves as a natural gauge for water quality and habitat stability.
- **Eco-Sensitive Zone (ESZ):** The sanctuary maintains a protective buffer (ESZ) ranging from 0 km to 1.70 km to minimize human-wildlife conflict.

Species Identified:
The ZSI survey documented **977 species**, with the following nine being entirely new to science:

- **Jumping Spider:** Stenaelurillus megamalai.
- **Mayflies:** Edmundsula meghamalaiensis.
- **Damselfly:** Thraulus vellimalaiensis – Protosticta sholai (endemic to the region).
- **Bark Lice & Cockroaches:** Allacta vellimalai and Lachesilla vellimalai.
- **Other Notable Fauna:** Megamalai rock gecko (Hemidactylus vanam), and historical records of the Critically Endangered Malabar Civet.

STOCKHOLM WATER PRIZE

Recently, Kaveh Madani has been named the 2026 recipient of the Stockholm Water Prize.



About Stockholm Water Prize:

- **Establishment:** The prize was established **in 1991 by the Stockholm Water Foundation**.
- **Other names:** It is widely regarded as the **"Nobel Prize of Water".**
  - **Objective:** It **honours individuals and organizations for extraordinary water-related achievements** that contribute to the conservation and protection of water resources.
- **Organizing Body:** It is awarded by the **Stockholm International Water Institute (SIWI) in cooperation with the Royal Swedish Academy of Sciences.**
  - **Award Ceremony:** The announcement occurs on **World Water Day (March 22),**and the ceremony is held during World Water Week in Stockholm every August.

Prize Value: Laureates receive a **cash award of SEK 1 million and a specially designed Orrefors crystal sculpture.**
Scope: Recognition spans multiple disciplines, including **science, engineering, policy, and environmental advocacy.**

Recent winners:

- **2026: Kaveh Madani (Iran),** recognized for linking water science with policy and diplomacy. He is the youngest recipient (age 44) and the first UN official to be honoured.
- **2025: Gunter Bloschl (Austria),** for his pioneering research on flood risks and climate change impacts.
- **2024: Taikan Oki (Japan),** for contributions to studying global water balance and virtual water flows.

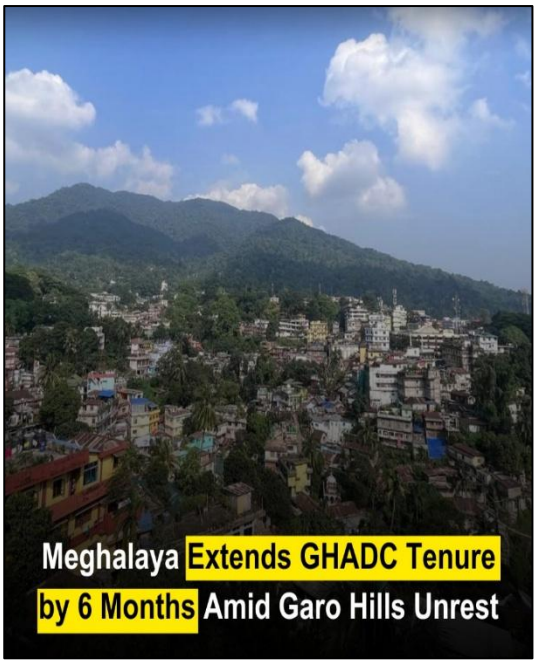
Indian winners:

- **Rajendra Singh (2015):** Known as the **"Waterman of India,"** he was honored for **reviving traditional rainwater harvesting techniques (Johads) in Rajasthan** through his NGO, Tarun Bharat Sangh.
- **Dr. Bindeshwar Pathak (2009): Founder of Sulabh International**, recognized for his massive impact on sanitation and human rights.

- **Centre for Science and Environment (2005):** The New Delhi-based NGO (led by Sunita Narain) was awarded **for community-based sustainable resource management.**
- **Madhav Atmaram Chitale (1993):** Honoured for his **work in water conservation and public education programs.**

GARO HILLS AUTONOMOUS DISTRICT COUNCIL

Recently, the Meghalaya State Government has extended the term of the Garo Hills Autonomous District Council (GHADC) for a period of six months.



About Autonomous District Council:

- **Constitutional Basis:** ADCs are established under **Article 244(2) and Article 275(1) of the Indian Constitution.**
- **State Coverage:** They are operational in **four states: Assam, Meghalaya, Tripura, and Mizoram.**
  - **Members:** Each ADC typically consists of **30 members.** 26 members are directly elected on the basis of adult franchise. 4 members are nominated by the Governor.
  - **Tenure: Elected members serve a term of five years,** while nominated members hold office at the Governor's pleasure.
  - **Bodoland Exception:** The Bodoland Territorial Council (BTC) in Assam is an exception, **with 46 members** (40 elected, 6 nominated).
  - **Legislative Power:** ADCs can make **laws on specific subjects like land management, management of non-reserved forests, water channels**, agriculture, village councils, and social customs (marriage, divorce, inheritance).

Governor's Assent: All laws made by the ADCs **require the assent of the Governor to become effective.**

  - **Judicial Authority:** They can **constitute Village Councils or Courts to trial suits and cases between tribal parties.** They cannot, however, decide cases involving offences punishable by death or imprisonment for 5+ years.

- **Executive Control:** ADCs manage **local services such as primary schools, dispensaries, markets, ferries,** fisheries, and roads.
- **Financial Autonomy:** They have the power to **levy taxes, fees, and tolls on land, buildings, professions, and vehicles,** and receive grants-in-aid from the Consolidated Fund of India.
- **Boundary Management:** The **Governor has the power to organize or reorganize autonomous districts**—including increasing, decreasing, or defining their boundaries and changing their names.

- **Autonomous Regions: If there are different tribes** in one autonomous district, the **Governor can divide the district into several autonomous regions.**
- **Application of Rules: Acts of Parliament or State Legislatures** do not automatically apply to these areas. The **Governor (for Assam) or the President (for others) can specify** if and how such laws apply.
- **Total Councils:** There are currently **10 ADCs in the Northeast** (3 in Assam, 3 in Meghalaya, 3 in Mizoram, and 1 in Tripura).
- **Difference with Fifth Schedule:** Unlike the Fifth Schedule (where the Union has more executive authority), the **Sixth Schedule provides significantly greater legislative and judicial autonomy** to the tribal areas.

INDIAN WOLF

Recently, an Indian wolf named Geeta at Pilikula Biological Park gave birth to seven pups.

About Indian Wolf:

- **Taxonomy:** The Indian Wolf **(Canis lupus pallipes),** often referred to as the Peninsular Wolf, is a genetically **distinct lineage of the grey wolf.**
  - **Genetically Basal:** Within the grey wolf family, the Indian plains wolf is considered genetically basal **to almost all other extant grey wolves**, except for the even older Himalayan wolf.
  - **Size:** It is **smaller and leaner than the European or Himalayan wolf**, representing an adaptation to hot, arid landscapes.

- **Coat Adaptation:** Unlike its northern counterparts, it **lacks a thick undercoat and possesses shorter fur,** which helps it survive high temperatures.
- **Pack Dynamics:** They **live in relatively small packs**, typically consisting of 6–8 individuals.
- **Vocalisation:** They are known to be **less vocal and rarely howl** compared to other grey wolf subspecies.
- **Nocturnal Hunter:** They are primarily nocturnal, **hunting from dusk to dawn** to avoid daytime heat.
- **Ecological Niche:** They are the **apex predators of grasslands, scrublands, and semi-arid agro-ecosystems**, which are often misclassified as "wastelands" in policy.

- **Core Range:** They are found across multiple Indian states, with major populations **concentrated in Rajasthan, Gujarat, Maharashtra, and Karnataka.**
  - **Outside Protected Areas:** Notably, **nearly 87% of their range lies outside the protected area network**, forcing them to coexist in human-dominated landscapes.
  - **Legal Protection:** They are listed under **Schedule I of the Wildlife (Protection) Act, 1972,** granting it the highest level of legal protection in India.

- **International Status:** They are classified as **Vulnerable on the IUCN Red List** and listed in **Appendix I of CITES.**
- **Major Threats:** The species faces severe pressure from **habitat fragmentation** due to industrial projects, **hybridisation with feral dogs,** and **retaliatory killings by pastoralists.**

PRAMBANAN TEMPLE COMPLEX

India and Indonesia have partnered for the restoration of the Prambanan Temple complex in the Special Region of Yogyakarta in southern Java.

About Prambanan Temple:

- **Location:** It is located in **Central Java, Indonesia,** near Yogyakarta.
- **Designation:** It was designated a **UNESCO World Heritage Site** in 1991.

Construction: It was built in the **9th century CE** (around 850 CE) during the reign of the **Sanjaya Dynasty of the Mataram Kingdom.**

- **Architectural Purpose:** Its construction was likely a **political and religious response to the nearby Buddhist Borobudur temple,** marking the return of Hindu Sanjaya rule in Java.
- **Deity:** It is **dedicated to the Trimurti**—the three forms of the Supreme God in Hinduism: Brahma (the Creator), Vishnu (the Preserver), and Shiva (the Destroyer/Transformer).

- **Vahana Temples:** Opposite the three main shrines are three smaller temples dedicated to the deities' vehicles (vahanas): **Nandi (Shiva's bull), Garuda (Vishnu's eagle), and Hamsa (Brahma's swan).**
  - **Garbhagriha Statues:** The main Shiva temple houses four chambers containing statues of **Shiva, Ganesha** (Western chamber), **Agastya** (Southern chamber), **and Durga Mahisasuramardini** (Northern chamber).
  - **Shiva-grha:** According to the **Shivagrha inscription (856 CE),** the **temple's original name was Shiva-grha** (House of Shiva) or Shiva-laya (Realm of Shiva).

- **Architectural Style:** it is characterized by tall, pointed spires typical of Hindu architecture, it reflects a **blend of indigenous Javanese traditions and South Indian Pallava-style influences.**
  - **Vertical Significance:** The central Shiva temple stands 47 metres tall, **symbolising Mount Meru, the cosmic center of the universe** in Hindu mythology.
  - **Scale of Complex:** Originally, the compound consisted of 240 structures, including the **8 main temples and 224 Perwara (ancillary) shrines** arranged in concentric rows.
  - **Concentric Layout:** The temple plan follows a **Mandala layout**, a sacred geometric configuration representing the Hindu universe.
  - **Ramayana Reliefs:** The **inner walls of the balustrades are adorned with extensive** bas-reliefs depicting the **epic Ramayana**. Visitors follow these scenes by performing pradakshina (circumambulation).
  - **Technique:** The temple was constructed **using andesite stone with an interlocking (dry stone) method** without the use of cement.
  - **Abandonment & Rediscovery:** It was **abandoned in the 10th century due to volcanic eruptions** (Mount Merapi) or political shifts. It was formally **"rediscovered" in 1811 by Colin Mackenzie,** a surveyor for Sir Thomas Stamford Raffles.

- **Cultural Diplomacy:** In recent years, the Archaeological Survey of India (ASI) has been involved in restoration efforts, **highlighting India's soft power and deep-rooted cultural ties with Southeast Asia.**

SAHITYA AKADEMI

Recently, the Sahitya Akademi has announced its annual Sahitya Akademi Awards in 24 Indian languages recognised by it.

About Sahitya Akademi Award:

- **Establishment:** It was formally inaugurated by the Government of India **on March 12, 1954,** and registered as an autonomous society in 1956.

Nodal Ministry: It functions under the **Ministry of Culture.**

- **Headquarters:** It is located at Rabindra Bhawan, **New Delhi.**
  - **Languages:** Awards are conferred annually for outstanding works in **24 languages (22 languages listed in the 8th Schedule** of the Indian Constitution **and 2 additional recognized languages: English and Rajasthani).**

- **Award Components:** Winners receive an **engraved copper plaque, a shawl, and a cash prize of ₹1,00,000.**

  - **Plaque Design:** The famous **Indian filmmaker Satyajit Ray** designed the Akademi's plaque.

  - **Nationality:** The author must be an **Indian national.**

  - **Eligible Works:** Books must be **first published during the five years prior to the award year.** Posthumous awards are eligible only if the author died within this five-year window.

  - **ISBN Requirement:** Starting **from January 1, 2025**, an ISBN is mandatory for all eligible books.

  - **Selection Process:** It is a multi-stage process involving experts, a **10-member Preliminary Panel, and finally a 3-member Jury** for each language.

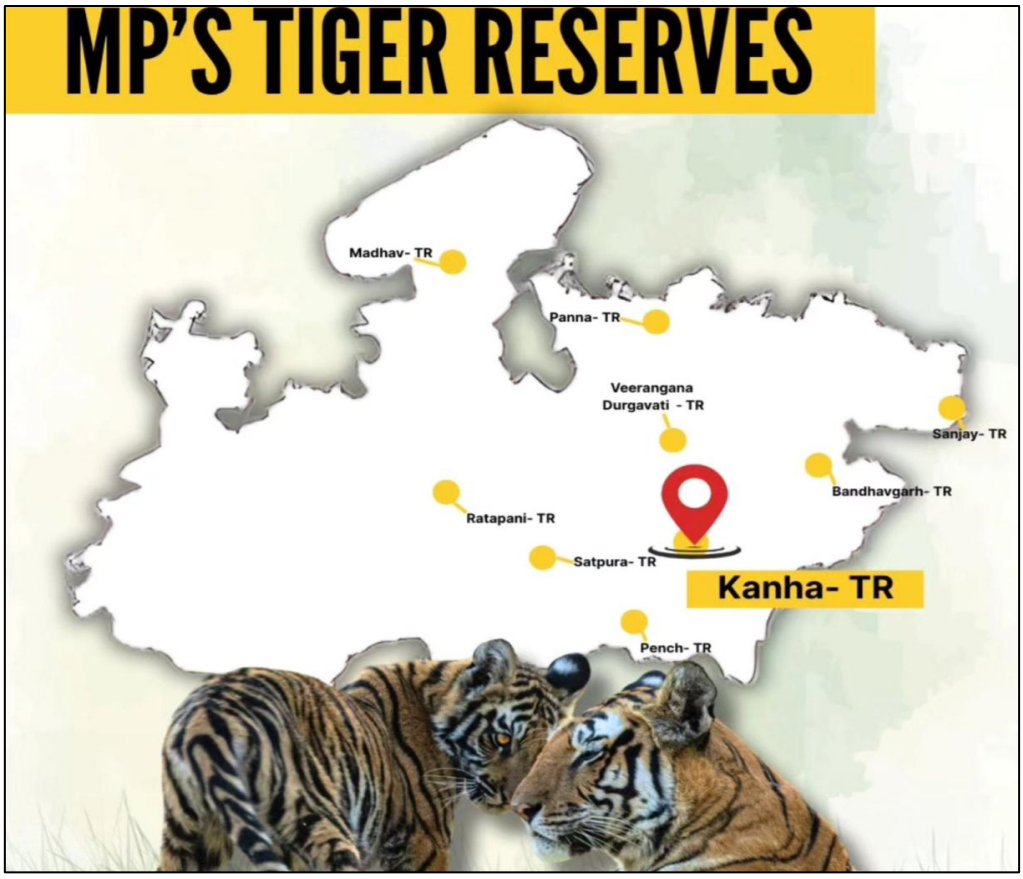
- **Recent Notable Winners (2025):**
  - **English: Navtej Sarna** for the novel Crimson Spring.
  - **Hindi: Mamta Kalia** for the memoir Jeete Jee Allahabad.

KANHA TIGER RESERVE (KTR)

Recently, Kaziranga National Park and Tiger Reserve cleared all formalities to translocate 50 wild Asiatic water buffaloes from the park to the Kanha Tiger Reserve.

About Kanha Tiger Reserve (KTR):

- **Location:** It is situated in the Maikal range of the Satpuras, spanning the Mandla and Balaghat districts of **Madhya Pradesh.**
- **Historical Timeline:** Originally a reserve forest (1879), it was declared a **wildlife sanctuary in 1933, a National Park in 1955**, and became one of the first nine reserves **under Project Tiger in 1973-74.**
    - **Drainage System:** The reserve is part of the Narmada Catchment area, with the **Banjar, Halon, and Surpan rivers** forming its primary drainage.



Terrain: It features a diverse landscape of **plateaus (locally called dadars), steep upper slopes, and undulating valleys.**

Corridors: KTR maintains vital wildlife corridors **connecting it to Pench Tiger Reserve (MP) and Achanakmar Tiger Reserve (Chhattisgarh).**

- **Vegetation Types:** The park is dominated by **Tropical Moist Deciduous forests,** specifically evergreen Sal (Shorea robusta) and **mixed deciduous trees** like Tendu, Jamun, and Arjun.
- **The "Jewel of Kanha":** It is the exclusive home of the **Hard Ground Barasingha** (Rucervus duvaucelii branderi), **the state animal of MP,** which was saved from near-extinction here.
- **Flagship Species:** It hosts a high density of **Royal Bengal Tigers,** along with Leopards, Sloth Bears, and Indian Wild Dogs (Dholes).

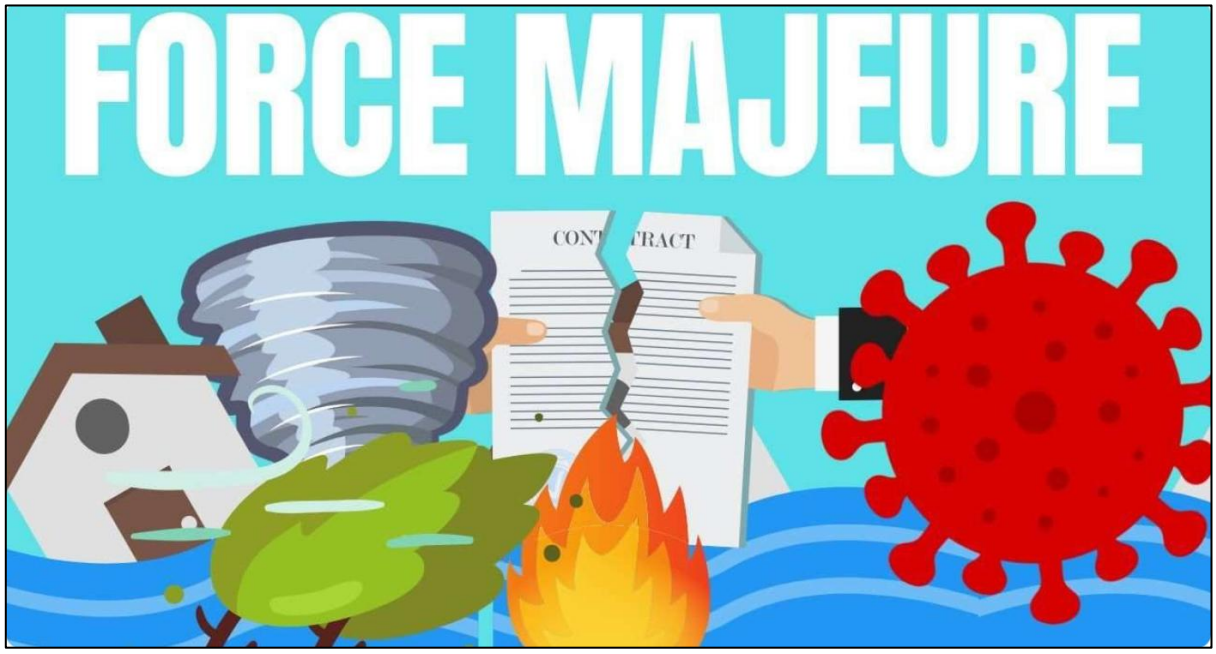
Avian Diversity: Over 300 bird species inhabit the park, including the **Crested Serpent Eagle and the Indian Paradise Flycatcher.**

- **First Mascot:** Kanha is the **first tiger reserve in India to introduce an official mascot,** "Bhoorsingh the Barasingha".

- **Literary Inspiration:** The dense forests of Kanha are widely believed to be the **inspiration for Rudyard Kipling's The Jungle Book.**
- **Tribal Heritage:** The region was originally inhabited by the **Gond and Baiga tribes**, who were later relocated from the core area to protect the tiger habitat.
- **Sunset Point: Bamni Dadar** is a famous plateau within the reserve known for its panoramic sunset views and herbivore sightings.
- **Conservation Success:** KTR's management is a **"gold standard" for predator-prey balance and successful reintroduction programs** (e.g., translocating Barasingha to Satpura).
- **Documentary Fame:** The **National Geographic documentary Land of the Tigers (1980)** was filmed here, showcasing its biodiversity to a global audience.

FORCE MAJEURE

Highway developers in India have urged from NHAI to classify the ongoing West Asia conflict as a force majeure event for road projects, citing supply disruptions



About Force Majeure:

- **Definition:** It refers to extraordinary events or **circumstances beyond human control** that make it impossible or **impractical for parties to fulfil their contractual obligations.**
- **Etymology:** The phrase comes from French and literally means **'superior force'.**
  - **Nature of Events:** Typically includes "**Acts of God" (natural calamities like earthquakes or floods) and man-made events (war, riots,** or government-imposed lockdowns).
  - **Predictability:** To qualify, an event must be **unforeseeable, external to the parties**, and its consequences must be unpreventable.
  - **Variation:** The application of force majeure can **vary across legal systems**, with some jurisdictions requiring a more stringent definition than others.

- **Legal Framework in India:** In India, the doctrine of force majeure is governed by **section 56 of the Indian Contract Act, 1872**. It provides that a contract becomes void if an act to be performed under the contract becomes impossible after the contract is made, or, by reason of some event, which the promisor could not prevent.

Judicial Interpretations:

- **Energy Watchdog v. CERC (2017):** The Supreme Court held that if a contract already contains a force majeure clause, **relief must be sought under that clause (Section 32) rather than general frustration (Section 56).**
- **Satyabrata Ghose v. Mugneeram Bangur (1954):** Clarified that **"impossible" in Section 56 does not just mean physical impossibility but also practical futility** where the very foundation of the contract is shaken.

- **Commercial Hardship:** Courts have consistently ruled that **mere economic unprofitability, price hikes, or increased difficulty do not constitute force majeure.**

Recent Government Notifications:

- **COVID-19 as Force Majeure:** In February 2020, the Ministry of Finance (Department of Expenditure) issued an Office Memorandum **declaring the pandemic a "natural calamity" and a valid ground for invoking force majeure**in government procurement contracts.
- **Railways and MNRE:** Both the Ministry of Railways and the Ministry of New & Renewable Energy (MNRE) **issued similar notifications** to provide relief to contractors during the national lockdown.
- **Contract Extensions:** The government provided blanket **extensions of 3 to 6 months for completion of contractual obligations** without penalties for projects affected by the pandemic.

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