

# Weekly Current Affairs To The Point by Dhananjay Gautam

# 02 to 08 June 2025

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# India Champions WTO Reform at Paris Ministerial Meet

**Context:** At the **WTO Mini-Ministerial Meeting** held in **Paris in 2025**, India emerged as a vocal advocate for strengthening the **multilateral trading system**, calling for a comprehensive overhaul of the **World Trade Organization (WTO)** to better reflect the interests of **developing economies**. The high-level meeting saw participation from **25 member countries**, amidst growing challenges to the global trading order.



## India's Bold 3-Pronged Reform Strategy:

India outlined a focused, three-point reform agenda aimed at **revitalizing the WTO**, making trade more **equitable**, and curbing practices that undermine the rules-based system.

# 1. Combatting Non-Tariff Barriers (NTBs):

India stressed the need to **tighten global oversight** on NTBs, such as **Sanitary and Phytosanitary (SPS)** measures and **Technical Barriers to Trade (TBT)**, which are increasingly used as hidden protectionist tools by developed nations.

- **Example**: Indian exports like **mangoes** and **basmati rice** frequently face rejections in **EU and U.S. markets** over alleged SPS violations, despite meeting quality standards.
- India's Ask: Greater transparency, scientific justifications, and non-discriminatory standards across WTO members.

# 2. Addressing Distortions by Non-Market Economies:

India raised concerns over state-driven economic models, particularly targeting nations like China, where heavy subsidies, export dumping, and opaque trade practices have disrupted global markets.

- **Example:** India's **steel** and **solar panel industries** have suffered due to cheap imports from China, leading to imposition of **safeguard duties** and **anti-dumping investigations**.
- India's Ask: Clear definitions, disciplines on subsidies, and greater transparency in trade practices of non-market economies.

# 3. Restoring the WTO Dispute Settlement Mechanism:

India underlined the **urgent need** to revive the **WTO Appellate Body**, which has remained non-functional since 2009 due to a **U.S. blockade on judicial appointments**.

- **Example**: Several key disputes involving India—such as those related to **U.S. steel tariffs** and **ICT import duties**—remain unresolved.
- India's Ask: A binding, independent, and impartial dispute resolution process to restore credibility and fairness in trade adjudication.

# Why WTO Still Matters in a Changing Global Landscape:

Despite facing challenges, the WTO remains **vital** to global economic governance, especially in a **multipolar world** where trade tensions are rising and geopolitical rivalries intensifying.

- **Dispute Resolution**: A neutral mechanism to manage frictions among major powers like **India**, **China**, **the U.S.**, and the **EU**.
- **Rule-Making for the Future**: With emerging areas like **digital trade**, **e-commerce**, and **artificial intelligence**, global rules are more essential than ever.

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- **Protection for Developing Nations**: Helps prevent **unilateralism** and **bullying by richer economies**, ensuring a **level playing field**.
- **Streamlined Trade**: Facilitates smoother trade through common **customs and trade procedures**, reducing **transaction costs**.

### Why Reform is Not Just Necessary—It's Unavoidable:

India emphasized that the current system is at a **critical inflection point**:

- Surging Protectionism: Trade wars like the U.S.-China standoff have often bypassed WTO norms.
- **Plurilateralism Risk**: Initiatives such as the **Investment Facilitation for Development (IFD)** are backed by over **128 nations**, but lack full consensus—potentially weakening **multilateralism**.
- Unresolved Development Issues: Key demands from the Global South, like a permanent solution for public foodgrain stockholding, remain pending since the Bali Ministerial of 2013.

### Conclusion: India's Reform Drive—Pragmatic, Principled, and Timely

India's push for WTO reform reflects a **balanced vision**—protecting the WTO's **developmental ethos**, resisting **fragmented trade deals**, and modernizing its core structures for **future relevance**. As global trade faces increasing uncertainty, India's leadership in reviving the WTO could help restore **faith in multilateralism** and build a more **inclusive, transparent, and just** global trading order.

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EnviStats India 2025: A Comprehensive Snapshot of India's Environmental Trends

**Context:** In a significant breakthrough, experts from the **Wildlife Institute of India (WII), Dehradun**, have successfully **collared three endangered Fishing Cats** (*Prionailurus viverrinus*) in **Coringa Wildlife Sanctuary (CWS)** — a first-of-its-kind effort in **India**. This initiative aims to monitor the species' **habitat range**, **behavioural patterns, breeding habits**, and **prey preferences**, providing vital insights for future conservatin strategies.



### About Coringa Wildlife Sanctuary:

Nestled in the **Kakinada district of Andhra Pradesh**, **Coringa Wildlife Sanctuary** forms an integral part of the **Godavari estuarine ecosystem**, where the **Coringa River** merges into the **Bay of Bengal**. This sanctuary is a unique blend of **mangrove swamps, tidal creeks**, and **sea backwaters**, with about **40% of the area submerged** under backwaters and tidal influence.

### Vegetation and Forest Types:

Coringa boasts **India's second-largest expanse of mangrove forests**, characterized by a mix of **mangroves** and **dry deciduous tropical forests**.

• **Dominant Mangrove Flora**: Species such as *Rhizophora spp., Avicennia spp.,* and *Sonnertia spp.* flourish here, forming a dense green barrier between land and sea.

### Diverse Wildlife at Coringa:

This biodiversity-rich zone supports an array of endangered and endemic wildlife species:

- Mammals: The sanctuary shelters endangered species like the Smooth-coated Otter, Fishing Cat, and Indian Jackal.
- **Birds**: Coringa is a paradise for birdwatchers. **Black-capped Kingfishers**, **Brahminy Kites**, **Reef Herons**, **Sandpipers**, and **Sea Gulls** are common sights among the mangroves.
- **Marine Life**: Its coastline serves as a crucial **nesting site for Olive Ridley Turtles**, a globally threatened marine species.

### **Spotlight: The Fishing Cat**

### **Physical Traits:**

The **Fishing Cat** is a **medium-sized wild cat** with a **robust, muscular build, short limbs**, and a **rounded but elongated face**. Females are typically **smaller than males**.

### Habitat Preferences:

Fishing cats thrive in **wetland ecosystems**, including:

- Mangrove forests
- Swamps and marshlands
- Reed beds and tidal creeks
- Oxbow lakes and river deltas

Their strong swimming skills allow them to pursue **aquatic prey** such as **fish, frogs**, and even **small crustaceans**.

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### **Behavioural Characteristics:**

They are **solitary**, **nocturnal hunters** who prefer to rest in **thick vegetation** during the day. At night, they become active near water bodies in search of food.

### **Geographical Distribution of Fishing Cats:**

- India: Found predominantly in the Sundarbans mangroves, foothills of the Himalayas, Ganga-Brahmaputra floodplains, and parts of the Western Ghats.
- International Range: Extends across Southeast Asia, including Sri Lanka, southern China, Java, Sumatra, and even some regions of Pakistan and Western India.

### **Conservation Status of the Fishing Cat:**

- IUCN Red List: Vulnerable
- CITES: Appendix II
- Wildlife Protection Act, 1972 (India): Schedule I (highest level of protection)

### **Additional Insight: Why This Matters**

The collaring of Fishing Cats at Coringa is a landmark achievement because:

- It enhances our understanding of **rare wetland species** in **mangrove ecosystems**.
- It helps develop **species-specific conservation action plans**.
- It promotes the importance of **urban-wetland coexistence**, especially in regions vulnerable to **climate change and habitat degradation**.

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### Tamil Nadu Declares Greater Flamingo Sanctuary in Dhanushkodi

**Context:** In a landmark decision for bird and habitat conservation, the Tamil Nadu Government has officially notified the creation of a Greater Flamingo Sanctuary in Dhanushkodi, located in the Ramanathapuram district. This move marks a significant stride in protecting one of India's most ecologically vital coastal zones, especially for **migratory waterbirds**.



### **About the Greater Flamingo Sanctuary:**

The newly declared sanctuary is situated within the Gulf of Mannar Biosphere Reserve, a UNESCOrecognized ecological hotspot known for its rich biodiversity and fragile coastal ecosystems.

### **Key Features of the Sanctuary:**

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- Location: Dhanushkodi, at the southeastern tip of Tamil Nadu.
- Ecological Significance: Lies along the Central Asian Flyway, serving as a critical stopover and feeding ground for thousands of **migratory birds**, including both **Greater** and **Lesser Flamingos**.
- Habitat Diversity: The area encompasses mangroves, intertidal mudflats, marshes, sand dunes, and **coastal wetlands**, providing a mosaic of habitats.
- Avian Richness: Supports over **128 bird species**, making it a key birding destination and ecological haven.
- Mangrove Ecosystems: Mangrove species such as Avicennia and Rhizophora play a vital role in shoreline protection and support a range of marine biodiversity, including fish, crustaceans, molluscs, and nesting sea turtles.

### Greater Flamingo: The Icon of the Sanctuary

### About the Species:

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The Greater Flamingo (Phoenicopterus roseus) is the largest and most widespread flamingo species in the world. Known for its graceful posture, striking pink plumage, and specially adapted beak, this bird feeds by filtering small organisms like algae, diatoms, and crustaceans from shallow waters.

### **Distribution:**

### It is widely found across:

- Africa
- Western and South Asia
- **Southern Europe**

### **Preferred Habitats**

The species thrives in:

- Saline and alkaline wetlands
- **Coastal lagoons** •
- Salt pans •
- Intertidal mudflats
- **Inland salt lakes**

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These habitats are essential during the **breeding season**, where colonies gather in large numbers.

Conservation Status of the Greater Flamingo

- **IUCN Red List**: **Least Concern**, but local populations are sensitive to habitat loss and pollution.
- Indian Wildlife Protection Act (1972): Schedule-II, offering protection from hunting and exploitation.

## Why This Sanctuary Matters:

- **Biodiversity Hotspot**: Part of the **Gulf of Mannar**, India's first marine biosphere reserve, home to over **4,000 species** of flora and fauna.
- **Climate Resilience**: Mangroves act as **natural buffers** against storms, cyclones, and sea-level rise.
- **Ecotourism Potential**: The sanctuary could become a **major birdwatching and ecotourism site**, boosting **local livelihoods** and **community-based conservation**.

**Global Flyway Protection**: The sanctuary strengthens India's role in the **Central Asian Flyway Initiative**, a multilateral effort to conserve migratory birds across continents.

### **Did You Know?**

The **Greater Flamingo** gets its pink coloration from **carotenoid pigments** in the crustaceans and plankton it consumes.

**Dhanushkodi**, once a bustling town destroyed by a cyclone in 1964, is now rising as a beacon for **wildlife conservation** and **eco-restoration**.

### Conclusion: A Vision for a Flamingo-Friendly Future

The declaration of the **Greater Flamingo Sanctuary** reflects Tamil Nadu's commitment to **environmental protection**, **coastal ecosystem conservation**, and the **safeguarding of migratory bird habitats**. As flamingos return seasonally to these rich wetlands, the sanctuary stands as a symbol of **harmonious coexistence between humans and nature**, and a model for **sustainable coastal development** across India.

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India Moves to Build Strategic Stockpile of Rare Earth Magnets Amid Global Supply Risks

**Context:** In a significant move to bolster its **technological self-reliance**, **India is in talks with private companies** to establish **long-term stockpiles of rare earth magnets**. The government is planning to extend **fiscal incentives** to encourage **domestic production**, aiming to reduce dependence on **China**, which currently dominates over **90% of the global rare earth magnet processing capacity**.



This initiative comes at a critical time, as China has recently **tightened export controls** on rare earth-related products, heightening global concerns about the stability and accessibility of these strategic materials.

## What Are Rare Earth Magnets?

**Rare earth magnets** are a class of **high-performance permanent magnets** made from alloys of **rare earth elements (REEs)**. They are known for their **unmatched magnetic strength**, **compact size**, and **energy efficiency**, making them indispensable in a wide range of high-tech applications.

**Key Features:** 

- **Exceptional magnetic force**, often 10 times stronger than traditional magnets.
- **Compact yet powerful**, making them ideal for miniaturized electronics.
- High energy density, crucial for devices that require strong yet lightweight magnetic components.

These magnets are a cornerstone of modern technology, but their **supply chain is heavily skewed**, with **China controlling a vast majority** of both the **mining** and **refining processes**.

# Types of Rar<mark>e Earth</mark> Magnets:

The two main types of rare earth magnets are:

# Neodymium Magnets (NdFeB)

- Composed of **Neodymium**, Iron, and Boron.
- Known as the **strongest commercially available magnets**.
- Widely used in **electric vehicles**, **wind turbines**, and **consumer electronics**.

# Samarium Cobalt Magnets (SmCo):

- Composed of Samarium and Cobalt.
- Slightly less powerful than neodymium but more resistant to heat and corrosion.
- Often used in **aerospace** and **defense** applications.

# Strategic Applications of Rare Earth Magnets:

Rare earth magnets are vital components in several **cutting-edge and national security-related sectors**, including:

- **Medical Devices**: MRI scanners, PET imaging, and X-ray machines.
- **Defense and Aerospace**: Guidance systems, jet engines, and drones.
- **Consumer Electronics**: Smartphones, headphones, and gaming consoles.
- Automotive Industry: Critical in the electric vehicle (EV) drivetrain and battery systems.

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- **Renewable Energy**: Essential for **high-efficiency wind turbines** and **solar tracking systems**.
- Data Storage: Used in hard drives and advanced computing systems.

# Understanding Rare Earth Elements (REEs):

**Rare Earth Elements (REEs)** comprise **17 chemical elements**, including the **15 lanthanides**, along with **scandium** and **yttrium**.

### **Key Points:**

- Despite their name, REEs are **not rare**—they are **relatively abundant**, but **difficult to extract and purify**.
- Found commonly together in **geological deposits**, they require **complex separation processes**.
- Often sold as **rare earth oxides** due to their stable form in commercial usage.

Currently, **China controls over 80% of the global refining and processing** of REEs, giving it a **strategic monopoly** in the global supply chain—something many countries, including India, are actively seeking to counterbalance.

## Why This Move Matters for India:

- National Security: Ensures supply chain resilience in defense and high-tech sectors.
- **Economic Independence**: Reduces reliance on imports for crucial inputs in emerging technologies.
- **Green Energy Transition**: Supports India's push towards **EVs** and **renewable energy**.
- Global Positioning: Aligns India with efforts by the U.S., EU, Japan, and Australia to diversify rare earth sourcing.

## Conclusion: Toward a Self-Reliant Magnet Economy

India's focus on building a **domestic ecosystem for rare earth magnets** marks a crucial step toward achieving **Atmanirbhar Bharat** (self-reliant India) in strategic sectors. With the growing global race to secure **critical mineral resources**, this initiative could help India **position itself as a key player** in the **future of green technology, defense manufacturing, and advanced electronics**.

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Thermophilic Bacteria: A Promising Weapon Against Antimicrobial Resistance

**Context: Thermophilic bacteria**—organisms that thrive in **extremely hot environments** like **hot springs, deep-sea vents**, and **compost heaps**—are emerging as key players in the fight against **antimicrobial resistance (AMR)**. One such site of interest is **Rajgir**, located in **Bihar**, **India**, where unique microbial life is revealing its potential to combat **drug-resistant pathogens**.



# The Study: Mining Microbial Riches with Metagenomics

• A scientific study conducted in the **hot springs of Rajgir** used **16S rRNA metagenomic analysis** to explore the diverse microbial community, focusing particularly on organisms capable of producing **antibiotic compounds**. Metagenomics, the method of analyzing **genetic material directly from environmental samples**, allows scientists to identify microbes without the need to culture them—a revolutionary approach in **microbial discovery**.

A significant finding was the dominance of **Actinobacteria**, a phylum known to include species like *Streptomyces*, which are natural producers of important antibiotics such as **streptomycin** and **tetracycline**. In Rajgir, these bacteria made up approximately **40–43%** of the microbial population, signaling high potential for **novel antibiotic discovery**.

One standout compound identified was **diethyl phthalate**, derived from a member of the **Actinomycetales** order. This substance exhibited **strong antimicrobial activity** against *Listeria monocytogenes*, a dangerous **foodborne pathogen** that poses serious health risks, especially to pregnant women, newborns, and individuals with weakened immune systems.

## Why It Matte<mark>rs: A Na</mark>tural Defense Against a Global Threat

The rise of AMR—largely driven by overuse and misuse of antibiotics—has become one of the gravest health threats globally. The World Health Organization (WHO) has warned that if unchecked, drug-resistant infections could push global healthcare costs to over USD 1 trillion by 2050. Already, AMR contributes to longer hospital stays, higher medical costs, and increased mortality.

Finding **natural antibiotics** from **thermophilic bacteria** offers a sustainable and effective solution. These heat-loving microbes thrive in **harsh, mineral-rich environments** with **low microbial competition**, making them prolific producers of **unique bioactive compounds** that could become the next generation of antibiotics.

## **Beyond Medicine: Industrial and Agricultural Innovations**

The benefits of thermophiles go beyond healthcare. For instance:

- The **PCR enzyme**, crucial for **Covid-19 testing**, is derived from *Thermus aquaticus*, a thermophile.
- In **Leh**, a bacterial consortium isolated from **hot springs** has been shown to **promote plant growth**, offering eco-friendly solutions for **sustainable agriculture**.
- In **Saudi Arabia**, thermophiles have demonstrated antimicrobial activity effective against **grampositive pathogens**, reinforcing their global significance.

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### The Road Ahead: Exploring Untapped Microbial Frontiers

The microbial world, especially in **extreme environments**, remains vastly underexplored. Hot springs like those in Rajgir are **natural bio-laboratories**, harboring **evolutionarily unique species** with powerful biochemical properties. With **advanced techniques** such as **metagenomics**, **bioinformatics**, and **synthetic biology**, scientists are better equipped than ever to unlock their secrets.

### **Final Thoughts:**

In the age of **superbugs** and rising **antibiotic resistance**, turning to nature—particularly **thermophilic bacteria** from India's **ancient hot springs**—might be our best bet. These **invisible warriors** could help us win the battle against AMR and pave the way for breakthroughs in **medicine**, **agriculture**, and **biotechnology**.

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### India and Vietnam Forge Deeper Ties in Media and Entertainment

**Context:** In a significant step to enhance bilateral ties, **India and Vietnam** have agreed to expand cooperation in the **media and entertainment sector**. This decision was reached during a high-level meeting between India's **Minister of State for Information and Broadcasting** and a **Vietnamese delegation**, underscoring the shared commitment to deepen cultural and creative engagement.



### Key Areas of Collaboration:

The two nations identified several promising avenues for cooperation:

- Content exchange between national broadcasters like Doordarshan and Vietnam Television (VTV) to showcase each other's cultural heritage.
- Joint film productions and co-hosted film festivals to strengthen cinematic ties.
- **Capacity building** in **journalism, media management**, and **digital broadcasting technologies** through training programs.
- **Exchange programs** involving media professionals, scholars, and film artists to foster professional growth and collaboration.
- Promotion of shared civilizational links, particularly in Buddhism, regional traditions, and historical narratives.

This partnership not only strengthens the entertainment ecosystem but also builds a bridge of **soft diplomacy** that enhances mutual understanding and people-to-people ties.

India–Vietnam Relations: A Strategic and Historic Bond: India and Vietnam celebrated **50 years of** diplomatic relations in **2022**, marking a robust and time-tested friendship. This relationship was further elevated:

- In 2016, from a Strategic Partnership to a Comprehensive Strategic Partnership during Prime Minister Narendra Modi's visit.
- In 2020, the two nations adopted a "Joint Vision for Peace, Prosperity, and People."
- In **2024**, bilateral momentum continued through **high-level exchanges** and the signing of a **Plan of Action (2024–2028)** to implement strategic goals.

### **Trade and Economic Relations:**

The bilateral trade between India and Vietnam stood at **USD 14.82 billion** (April 2023–March 2024), with:

- India's exports at USD 5.47 billion.
- **Imports from Vietnam** totaling **USD 9.35 billion**, indicating a **trade imbalance** that needs to be addressed.

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India's potential in sectors like pharmaceuticals, textiles, IT services, and agriculture remains **underutilized** due to **non-tariff barriers** and **logistical constraints**.

### **Strong Defence and Security Ties:**

India and Vietnam have steadily enhanced their defence partnership:

- Defence Cooperation MoU (2009) and Joint Vision Statement (2015) laid the foundation.
- In **2022**, both nations signed a **Joint Vision Statement on Defence Partnership till 2030**.

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- Defence Line of Credit (LoC) worth USD 500 million extended by India to Vietnam.
- In **2023**, **INS Kirpan** was handed over to Vietnam—the **first major Indian warship transfer to an ASEAN country**.
- Regular joint exercises like **VINBAX** and **PASSEX**, along with **maritime cooperation**, highlight growing military synergy.

# **Regional and Global Synergy:**

India and Vietnam share a **common vision for a free, open, and inclusive Indo-Pacific**. Key areas of global and regional coordination include:

- Vietnam's support for India's permanent membership in the UNSC.
- Collaboration in ASEAN, East Asia Summit (EAS), and Mekong frameworks.
- India backs Vietnam's centrality under its Act East Policy.

Vietnam also joined India's **Coalition for Disaster Resilient Infrastructure (CDRI)** and jointly issued a commemorative stamp celebrating cultural martial arts: **Kalaripayattu** and **Vovinam**.

## Challenges in the Relationship:

## Despite strong ties, certain challenges persist:

- **China Factor**: Both countries face maritime tensions with China but Vietnam remains cautious in openly aligning on regional security matters.
- Trade Deficit: The trade imbalance favors Vietnam, and FTA review under the ASEAN-India Trade in Goods Agreement (AITIGA) has progressed slowly.
- **Connectivity Issues**: Limited **direct flights and logistics links** impact tourism, trade, and peopleto-people interactions.
- **Naval Interoperability**: Vietnam's navy has more integration with China than with India, posing challenges for deeper maritime cooperation.
- Economic Divergence: Vietnam is closely tied to East Asian supply chains and is a member of RCEP, reducing dependency on India.

## The Way Forward: Toward a Balanced and Dynamic Partnership

To unlock the full potential of India-Vietnam relations:

- Trade balance must be improved by **boosting Indian exports** and **removing non-tariff barriers**.
- **FTA negotiations** under AITIGA should be **expedited**.
- Enhance **maritime cooperation** through **joint training**, **shipbuilding**, and **logistics support**.
- Promote investments in **digital technology**, **startups**, and **renewable energy**.
- Deepen collaboration in **media**, **education**, and **cultural diplomacy**.

# Additional Insight:

**India is among the world's largest film producers**, and Vietnam's rising interest in global cinema makes it a natural partner for co-productions, talent exchange, and storytelling around shared **Asian values** and **Buddhist heritage**.

**Conclusion:** India and Vietnam's collaboration in **media and entertainment** not only reinforces cultural connectivity but also acts as a catalyst for **strategic, economic, and regional cooperation**. As both nations face a rapidly evolving global order, their partnership—grounded in shared values and mutual respect—has the potential to shape a **resilient and inclusive Indo-Pacific future**.

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Powering Cities Through Architecture: India's Opportunity with Building-Integrated Photovoltaics (BIPV)

**Context:** India's **rapid urbanisation**, coupled with a strong solar manufacturing base, is opening up massive potential for the **adoption of Building-Integrated Photovoltaics (BIPV)**—a technology that blends **solar energy generation directly into building architecture**. With a push for sustainability and clean energy, experts believe that BIPV could transform how India powers its cities.



### What Is BIPV?

**Building-Integrated Photovoltaics (BIPV)** involve the **seamless incorporation of photovoltaic (solar) cells into the structural elements** of buildings. Unlike traditional rooftop solar panels, BIPV becomes a **functional part of the building envelope**, replacing materials like glass, concrete, or tiles.

These integrated systems are installed on:

- Façades
- Glass panels and skylights
- Balconies and railings
- Roofs and shading elements
- Cladding and curtain walls

Key Advantages of BIPV Technology:

- **Design Versatility:** BIPV can be **custom-designed** to match the aesthetics of any structure with **choices in color, transparency, and shape**, allowing **architectural creativity and energy efficiency** to go hand in hand.
- **Thermal Performance:** Semi-transparent BIPV panels **reduce heat gain**, decreasing the load on air conditioning systems and improving **overall energy efficiency**.
- **Space-Efficient Energy Generation:** In dense urban environments where **rooftop space is limited**, BIPV enables power generation from vertical surfaces like **walls and balconies**. For instance, a **south-facing façade** can generate **up to four times** more electricity than a conventional rooftop installation.
- **Integrated Energy Supply:** Electricity generated is **directly connected to the building's power system**, reducing dependence on grid power and **cutting electricity costs**.
- Why BIPV Matters for India: India's future urban growth demands energy-smart infrastructure. With its fast-growing population, vertical expansion of buildings, and commitment to net-zero goals, BIPV presents a critical solution for sustainable cities.
  - ✓ The urban housing boom, especially in Tier-I and Tier-II cities, presents a golden opportunity for BIPV in high-rise residential and commercial complexes.
  - ✓ BIPV can also empower renters and apartment dwellers without rooftop access a concept already successful in Germany through balcony solar units.
  - ✓ BIPV supports India's National Solar Mission and the broader climate action goals under the Paris Agreement.

### **Barriers to Adoption in India:**





Despite the promise, **BIPV penetration remains low** due to:

- High upfront installation costs
- Low public awareness and lack of market education
- Absence of dedicated policies and standardised technical guidelines
- Dependence on imported components
- Minimal inclusion in current building codes

# Unlocking the Potential: The Way Ahead

India has an estimated **309 GW potential** from BIPV in existing urban structures alone. Here's how the country can accelerate its BIPV journey:

## Policy and Regulatory Support:

- Include mandatory BIPV provisions in building bye-laws and smart city planning.
- Extend existing schemes like PM-KUSUM and Solar Rooftop Yojana to include BIPV systems.
- Adopt **incentive models** like **South Korea**, which offers up to **80% subsidy support** for BIPV installations.

## **Demonstration Projects:**

- Launch **pilot BIPV projects** in metro cities, public buildings, and transport hubs.
- Showcase real-time **cost savings and energy efficiency** through case studies.

# Boost Dome<mark>stic Manu</mark>facturing:

- Incentivise local BIPV module and component production under PLI schemes.
- Encourage **R&D** in building materials that integrate photovoltaic capabilities.

## **Financial Innovation**:

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- Promote **Renewable Energy Service Company (RESCO)** models for BIPV.
- Introduce long-term power purchase agreements (PPAs) tailored for building owners.

## **Did You Know?**

- **Singapore's Zero-Energy Building (ZEB)** has used BIPV extensively to meet all its power needs sustainably.
- BIPV modules can last **20–30 years**, with minimal maintenance and high reliability.
- With India's vast **construction market** (third-largest globally), integrating solar into building materials could **reduce carbon emissions significantly**.

# Conclusion: The Future of Urban Energy Lies in the Walls and Windows

**BIPV is more than just solar—it is architecture fused with innovation.** For a country like India, with **expanding skylines** and **rising energy demands**, the **integration of renewable power into every square foot of urban space** is not just a futuristic idea—it's a **necessity**.

By pushing policy, innovation, and awareness, India can **turn its buildings into clean energy assets**, ushering in a **revolution in sustainable urban living**.

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Coringa Wildlife Sanctuary: A Mangrove Haven for Endangered Wildlife

**Context:** In a significant breakthrough, experts from the **Wildlife Institute of India (WII), Dehradun**, have successfully **collared three endangered Fishing Cats** (*Prionailurus viverrinus*) in **Coringa Wildlife Sanctuary (CWS)** — a first-of-its-kind effort in **India**. This initiative aims to monitor the species' **habitat range, behavioural patterns, breeding habits**, and **prey preferences**, providing vital insights for future conservatin strategies.



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### Vegetation and Forest Types:

Coringa boasts **India's second-largest expanse of mangrove forests**, characterized by a mix of **mangroves** and **dry deciduous tropical forests**.

• **Dominant Mangrove Flora**: Species such as *Rhizophora spp., Avicennia spp.,* and *Sonnertia spp.* flourish here, forming a dense green barrier between land and sea.

### Diverse Wildlife at Coringa:

This biodiversity-rich zone supports an array of endangered and endemic wildlife species:

- Mammals: The sanctuary shelters endangered species like the Smooth-coated Otter, Fishing Cat, and Indian Jackal.
- **Birds**: Coringa is a paradise for birdwatchers. **Black-capped Kingfishers**, **Brahminy Kites**, **Reef Herons**, **Sandpipers**, and **Sea Gulls** are common sights among the mangroves.
- **Marine Life**: Its coastline serves as a crucial **nesting site for Olive Ridley Turtles**, a globally threatened marine species.

## Spotlight: The Fishing Cat

### **Physical Traits**

The **Fishing Cat** is a **medium-sized wild cat** with a **robust, muscular build, short limbs**, and a **rounded but elongated face**. Females are typically **smaller than males**.

## Habitat Preferences:

Fishing cats thrive in **wetland ecosystems**, including:

- Mangrove forests
- Swamps and marshlands
- Reed beds and tidal creeks
- Oxbow lakes and river deltas

Their strong swimming skills allow them to pursue **aquatic prey** such as **fish, frogs**, and even **small crustaceans**.

### Behavioural Characteristics: <u>Download Our Application</u> \_\_\_\_\_





They are **solitary**, **nocturnal hunters** who prefer to rest in **thick vegetation** during the day. At night, they become active near water bodies in search of food.

### **Geographical Distribution of Fishing Cats:**

- India: Found predominantly in the Sundarbans mangroves, foothills of the Himalayas, Ganga-Brahmaputra floodplains, and parts of the Western Ghats.
- International Range: Extends across Southeast Asia, including Sri Lanka, southern China, Java, Sumatra, and even some regions of Pakistan and Western India.

### **Conservation Status of the Fishing Cat:**

- IUCN Red List: Vulnerable
- CITES: Appendix II
- Wildlife Protection Act, 1972 (India): Schedule I (highest level of protection)

### **Additional Insight: Why This Matters**

The collaring of Fishing Cats at Coringa is a landmark achievement because:

- It enhances our understanding of **rare wetland species** in **mangrove ecosystems**.
- It helps develop **species-specific conservation action plans**.
- It promotes the importance of **urban-wetland coexistence**, especially in regions vulnerable to **climate change and habitat degradation**.

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To the Point



Weekly Current Affairs 02 to 08 June

**Context: World Environment Day**, celebrated annually on **June 5**, is the **United** Nations' flagship initiative for promoting worldwide awareness and action to protect the **environment**. With participation from over **150** countries, it is the **largest international platform** for public outreach on environmental issues.

Spearheaded by the **United Nations Environment Programme (UNEP)**, the day inspires governments, businesses, communities, and individuals to engage in efforts that safeguard nature and ensure a more sustainable future.

### A Look Back: Origins of World Environment Day

- The idea for World Environment Day was born in **1972** during the historic **United Nations** Conference on the Human Environment in Stockholm. That same year marked the creation of **UNEP**, setting the stage for global environmental governance.
- Later in 1972, the **UN General Assembly** officially designated **June 5** as **World Environment Day**. The first celebration took place in **1973** with the theme "**Only One Earth**", launching a global tradition of annual environmental advocacy.

Since then, every year a different country hosts the event and highlights a pressing environmental issue through campaigns, discussions, and grassroots action.

## World Environment Day 2025: United Against Plastic Pollution

### Host Country: Republic of Korea

### **Theme: Beat Plastic Pollution**

For **2025**, the **Republic of Korea** is leading the global campaign with a powerful and timely message: "Beat **Plastic Pollution.**" The focus is on addressing one of the most urgent challenges of our time—**plastic waste** and its devastating impact on ecosystems, wildlife, and human health.

### Why Plastic Pollution Is a Global Crisis:

- **Over 430 million tonnes** of plastic are produced every year, and a significant portion ends up as waste in landfills, rivers, and oceans.
- Microplastics—tiny plastic particles—have been found in air, water, and even human blood, posing serious health risks.
- Marine species such as sea turtles, seabirds, and whales suffer injuries or death due to ingestion or entanglement in plastic debris.
- By 2050, it is estimated that **plastic in oceans could outweigh fish** if current trends continue.

### What You Can Do:

- **Reduce** single-use plastics like bags, straws, and cutlery.
- Reuse and repurpose plastic products whenever possible. ٠
- **Recycle** responsibly and support businesses that use **sustainable packaging**. •
- Participate in **clean-up drives**, educational campaigns, and environmental volunteering.

## **Extra Insight: Turning the Tide on Plastic**

Innovations are emerging to combat plastic pollution:

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- Biodegradable alternatives to plastic made from plant starches, seaweed, and fungi.
- Plastic-eating enzymes and microbes are being developed to break down plastic waste.
- **Circular economy models** encourage redesigning products to minimize waste and extend their life cycle.

### **Inspiring Action for a Greener Future:**

World Environment Day 2025 is more than a date on the calendar—it's a **reminder of our shared responsibility**. By joining the movement to **eliminate plastic pollution**, we protect our planet for **future generations** and honor the theme of **sustainable living**.

Let this year be a turning point where we not only speak about change—but become part of it.

Together, we can beat plastic pollution—one step at a time.

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### Ice Breaker Missile: A New Era in Precision Strike Capability

Context: In a strategic move to bolster its long-range precision strike capabilities, the Indian Air Force (IAF) is evaluating the induction of the 'Ice Breaker' missile, a cutting-edge air-launched cruise missile developed by Israel's Rafael Advanced Defense Systems. Known for its agility, stealth, and precision, the Ice Breaker could significantly enhance India's offensive and defensive aerial capabilities.



### What is the Ice Breaker Missile?

The Ice Breaker is a long-range, precision-guided, autonomous missile engineered for multi-platform **compatibility**. It is designed to deliver highly accurate strikes while remaining difficult to detect, making it ideal for complex, modern combat scenarios.

Developed by Rafael, the same Israeli defense firm behind systems like the Iron Dome, this missile represents a new generation of versatile and intelligent weaponry suited for both offensive and defensive operations.

### Multi-Platform Versatility:

One of the key strengths of the Ice Breaker is its **cross-platform adaptability**. It can be launched from a wide range of platforms, including:

- Jet Fighters
- Light Combat Aircraft
- Attack Helicopters
- Small Naval Vessels •
- Freedom UPSC **Ground-based** Mobile Launchers •

This flexibility makes it an ideal choice for dynamic combat environments, enabling commanders to tailor deployment based on mission needs.

### **Key Features and Capabilities:**

- **Compact Yet Powerful:** The missile is **about 4 meters long** and weighs **less than 400 kg**, making it easy to deploy across various platforms without compromising on firepower. It carries a **250 lb** warhead capable of delivering significant impact.
- Extended Range: With a striking range of up to 300 kilometers, the Ice Breaker can engage highvalue targets deep inside enemy territory while keeping the launch platform safely out of danger.
- High Subsonic Speed: Designed for low observability, it travels at high subsonic speeds while ٠ hugging the terrain or skimming over sea surfaces to avoid radar detection.
- Stealth Technology (VLO): The missile features Very Low Observable (VLO) design elements that allow it to penetrate dense air defense networks without being detected.
- Advanced Targeting System: Equipped with a multi-spectral electro-optical seeker, the missile can "see" in day, night, and all-weather conditions, ensuring it maintains accuracy even in complex battlefield scenarios.
- Artificial Intelligence Integration: The missile's AI-based guidance system enables real-time target recognition, decision-making, and precision strike — only engaging confirmed hostile targets. Download <u>Our Application</u>









- Autonomous or Semi-Autonomous Modes: It can function entirely on its own or in a "man-in-theloop" configuration, giving operators the ability to intervene during the final moments of the strike.
- **Swarm Attack Capability**: The Ice Breaker can be deployed in **coordinated group attacks**, allowing multiple missiles to strike in unison with synchronized precision, overwhelming enemy defenses.

### Why It Matters for India:

If inducted, the **Ice Breaker** would complement India's existing missile arsenal like the **BrahMos** and **SCALP**, filling a tactical niche for **medium-range**, **high-precision**, **stealthy cruise missiles**. It would provide a vital edge in operations requiring **deep strike capabilities** with **minimal collateral damage** and **high accuracy**, especially in **contested or denied airspace**.

### **Did You Know?**

- The Ice Breaker is the **export variant** of Rafael's **Sea Breaker** missile, which is designed primarily for maritime roles.
- Its smart design allows for **modular upgrades**, meaning future improvements in AI, propulsion, or targeting tech can be easily integrated.

## **Conclusion: A Game Changer in Modern Warfare**

The **Ice Breaker missile** is not just another weapon—it's a leap toward the **future of warfare**, where **speed**, **stealth**, **and smart technology** define battlefield superiority. If India proceeds with this acquisition, it could significantly **enhance its precision strike options**, particularly in scenarios demanding **covert operations** and **pinpoint accuracy**.

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India's 2027 Digital Census: Caste Data, Delimitation, and a New Political Landscape

**Context:** After a gap of **16 years**, India is preparing to conduct its next population census by March 1, 2027. This will be a landmark event, not only because it will be the first-ever digital census, but also because, for the first time since Independence, it will include caste-based enumeration—a move that could reshape political, social, and economic planning in the country.



# Next National Census to Begin in 2026:

The Union Ministry of Home Affairs has announced that the nationwide census operation will begin on April 1, 2026, and will be completed by February 28, 2027.

Key Highlights of the 2027 Census:

- **India's First Fully Digital Census**
- Inclusion of Caste Enumeration
- Two-Phase Operation:
  - **Phase 1:** House Listing and Housing Schedule
  - **Phase 2**: Population Enumeration (including caste data) 0

### **Reference Dates:**

- March 1, 2027 for most states
- October 1, 2026 for snow-bound regions in Ladakh, Jammu & Kashmir, Himachal Pradesh, and Uttarakhand

## Legal Framework:

The census will be carried out under the Census Act, 1948, and Census Rules, 1990. An official Gazette Notification under Section 3 of the Census Act is expected soon to formalize the process.

## The Political Ripple Effect: Delimitation After 2027

One of the most significant consequences of the 2027 Census will be the initiation of **Delimitation**—the redrawing of Lok Sabha and State Assembly constituencies—based on the new population figures.

## **Constitutional Basis for Delimitation:**

- Governed by Articles 81 and 82 of the Constitution
- Requires a **Delimitation Act** to be passed by Parliament •
- A new **Delimitation Commission** will be set up to recommend changes

## **Composition of the Commission:**

- **Chairperson**: Retired Supreme Court Judge
- Members: Chief Election Commissioner and State Election Commissioners
- **Associate Members**: Selected MPs and MLAs (non-voting members)

## **Historical Context: Freeze on Seat Changes:**

- **1951, 1961, 1971**: Delimitation conducted post-census •
- **42nd Amendment (1976)**: Froze the number of parliamentary seats until post-2001 Census

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# • **84th Amendment (2002)**: Extended the freeze until after the **2026 Census**

As of now, the **543 Lok Sabha seats** are still based on the **1971 Census**. The **Delimitation Act of 2002** allowed only boundary adjustments—not an increase in total seats.

To increase seats, a constitutional amendment is necessary, requiring a two-thirds majority in Parliament.

### Women's Reservation and the Census Link:

• The **Women's Reservation Act**, which provides **33% reservation for women** in the Lok Sabha and State Assemblies, will also **come into force only after the 2027 Census** and **delimitation process**. This ties the act's implementation directly to the release of updated demographic data and new constituency maps.

### **Population-Based Challenges: North vs. South**

• A likely **political flashpoint** is the **redistribution of seats based on population**. Southern states like **Tamil Nadu, Kerala, Karnataka, and Andhra Pradesh**, which have effectively managed population control, fear losing political representation compared to more populous northern states.

If the **current cap of 550 seats** (as per Article 81) remains unchanged and only the boundaries are redrawn, southern states may **lose relative influence** in the Lok Sabha.

### No Mention of NPR:

Interestingly, there was **no update** regarding the **National Population Register (NPR)** in the recent announcement. As per the **Citizenship Rules, 2003**, the NPR is the first step towards creating a **National Register of Indian Citizens (NRIC/NRC)**—a politically sensitive issue.

### Why the 202<mark>7 Censu</mark>s Is Historic:

- It marks the first digital enumeration across India, possibly through mobile apps and selfenumeration portals.
- Caste data will provide the **first official figures on caste distribution** since British times, impacting **affirmative action policies**, **resource allocation**, and **political representation**.
- The process could lead to a constitutional reshaping of India's federal balance, especially through delimitation and the redrawing of parliamentary power dynamics.

### Conclusion: A Census That Will Reshape India

The **2027 Census** is not just about counting people—it will redefine **representation**, **policy planning**, and the **political future of India**. From **digital transformation** to **caste-based data collection** and **new parliamentary boundaries**, this exercise will influence everything from **social justice laws** to the **2029 General Elections**.

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Context: The Ministry of Electronics and Information Technology (MeitY) has recently invited public feedback on the Draft Digital Personal Data Protection (DPDP) Rules, 2025. These rules are crucial for the implementation of the DPDP Act, 2023, India's landmark data protection legislation. The rules are currently under stakeholder review and are expected to come into effect soon.



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## Understanding the Digital Personal Data Protection (DPDP) Act, 2023:

## A Landmark Reform in Data Privacy:

The DPDP Act, 2023 marks India's first comprehensive legal framework to regulate the use of digital personal data, aiming to safeguard individual privacy while enabling legitimate data processing.

It was enacted **six years after** the **Supreme Court's 2017 Puttaswamy Judgment**, which declared **privacy** as a fundamental right under Article 21 of the Constitution. The Act takes cues from global privacy laws such as the EU's General Data Protection Regulation (GDPR).

## Scope and Applicability:

- Applies to **digital personal data** processed in India or **outside India**, if it involves the offering of goods or services within India.
- **Exemptions** include personal data used for **private purposes** or already made public by the individual (Data Principal) or under legal obligations.

## **Consent and Children's Data Protection:**

- Personal data can only be processed for a **lawful purpose** with the **consent of the Data Principal**. •
- Consent must be freely given, specific, informed, and revocable at any time.
- For individuals **under 18**, verifiable **parental or guardian consent** is mandatory.
- **Section 9** prohibits harmful processing or targeted advertising towards minors.

# **Rights of Data Principals:**

## Individuals have the right to:

- Access their data
- Correct or delete inaccurate data
- Grievance redressal
- Appoint a nominee in case of death or incapacity

# However, filing false complaints or misinformation is punishable with a fine of up to **210,000**.

## **Duties of Data Fiduciaries:**

Entities that process data (Data Fiduciaries) must:

- Ensure accuracy of data •
- Implement strong security safeguards •
- Notify individuals and the Data Protection Board of India (DPBI) in the event of a data breach •
- **Delete data** when no longer necessary for legal or business purposes

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## Significant Data Fiduciaries (SDF):

The **Central Government** may classify certain organizations as **Significant Data Fiduciaries** based on:

- Volume and sensitivity of data processed
- Risk to individual rights
- Implications for national security or public order

# SDFs have extra obligations such as:

- Appointing a Data Protection Officer
- Conducting Data Protection Impact Assessments
- Undergoing independent audits

# **Exemptions Under the DPDP Act:**

The Act exempts certain entities and use cases:

- Government agencies for security, sovereignty, or public order
- Statistical, archival, and research purposes
- **Startups** and small businesses, under certain conditions
- Legal claims, investigations, judicial or regulatory functions
- Processing data of non-residents under international contracts

# Data Protection Board of India (DPBI):

The **DPBI**, to be set up by the Central Government, will:

- Oversee compliance
- Investigate breaches
- Impose penalties

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Resolve grievances and appeals

It is designed to be a **digital-first body** with streamlined, tech-enabled operations.

# Key Draft Rules of 2025: What's New?

# 1. Cross-Border Data Transfers:

- Certain categories of **personal data may be transferred abroad**—based on **government approvals**.
- Ensures **global data flow** with **sovereign oversight**.

# 2. Data Erasure Rules:

- Data may be retained up to **3 years from last interaction** or from the rules' effective date.
- Data Fiduciaries must provide **48-hour advance notice** before erasure.

# 3. Digital Consent and Redressal:

- Digital-by-design systems for consent management and grievance resolution via the DPBI.
- Faster processing through **online platforms and interfaces**.

# 4. Graded Compliance:

Startups and MSMEs have lighter compliance requirements.

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• **Tech giants** like **Facebook, Amazon, YouTube, and Netflix** fall under the **Significant Data Fiduciary** category with stricter rules.

### 5. Consent Managers:

- Consent can also be managed through **registered Consent Managers**, who must:
  - Be an Indian company
  - Have a minimum net worth of 2 crore
  - Ensure secure and transparent **collection**, **storage**, **and withdrawal** of user consent

### **Key Concerns and Criticisms:**

- **1. Broad State Exemptions:** The Act provides the **government with sweeping powers** to **bypass privacy safeguards**, citing national interests—raising concerns over potential **privacy infringement**.
- 2. Missing Data Rights: Unlike global standards, the Act lacks provisions for:
  - Data portability
  - Right to be forgotten
  - Profiling protection
- **3. Vague Cross-Border Data Rules:** Permitting **unrestricted data transfer** to most countries (unless otherwise notified) creates **ambiguity** in ensuring **data sovereignty and security**.
- **4. Inadequate Harm Prevention:** The law does not clearly address risks like identity theft, financial fraud, or discriminatory profiling, leaving data principals vulnerable.

### How Can the DPDP Act Be Strengthened?

- **Clarify exemption clauses** and define terms like *sovereignty* and *public order* precisely.
- Promote bilateral/multilateral data agreements for secure cross-border flows.
- Adopt a **flexible**, evolving regulatory framework aligned with emerging technologies like AI.
- Create a specialized AI-data protection task force to address new risks.
- Learn from **international models** like the **EU-US Data Privacy Framework** to build trust and transparency.

## A Controversial Clause: Section 44(3)

The Act **amends Section 8(1)(j) of the Right to Information (RTI) Act**, removing the *larger public interest* test. Now, public authorities can **deny access to personal data** under RTI without evaluating whether disclosure serves a greater public good—potentially **curbing transparency**.

## Conclusion: A Critical Step Toward a Privacy-First Digital India

The **Digital Personal Data Protection Act, 2023**, and its **Draft Rules of 2025**, mark a **major milestone** in India's journey toward **responsible data governance**. While the framework seeks to balance **privacy rights and innovation**, concerns about **state overreach**, **missing rights**, and **data security** need urgent attention.

If implemented effectively with **robust oversight**, this law can pave the way for a **secure**, **transparent**, **and user-centric digital ecosystem**, aligned with **global privacy standards** and **India's democratic values**.

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### India and Japan Strengthen Maritime Ties for a Sustainable Indo-Pacific

**Context:** In a significant move toward enhancing regional maritime collaboration, **India and Japan have agreed to deepen their maritime cooperation**, reflecting their mutual commitment to ensuring peace, security, and sustainable development in the **Indo-Pacific** region.



## Key Pillars of India-Japan Maritime Collaboration:

## Smart Island Development & Renewable Energy:

• Japan will assist in transforming Andaman & Nicobar and Lakshadweep Islands into smart, sustainable, and disaster-resilient maritime zones, powered by renewable energy and equipped with eco-friendly infrastructure.

### **Digital Ports & Emission Reduction:**

Both countries have committed to port digitisation to boost operational efficiency, reduce logistics costs, and cut carbon emissions. This aligns with India's Smart Port initiative and Japan's green maritime goals.

### **Employment & Seafarer Skill Development:**

• With **over 1.54 lakh trained Indian seafarers**, Japan is exploring opportunities to recruit Indian maritime talent to address its **labour shortage**, fostering employment and upskilling in India.

### **Boosting Maritime Infrastructure:**

 Japan's Imabari Shipbuilding has proposed a greenfield shipyard in Andhra Pradesh, a step forward in advancing India's domestic shipbuilding capabilities under the Maritime India Vision 2030.

### **R&D and Next-Gen Maritime Technology:**

• Collaboration through **Cochin Shipyard Limited (CSL)** will focus on **next-gen ship design**, **clean fuel vessels**, **automation**, and **technology transfer**, strengthening India's marine innovation ecosystem.

### Why This Maritime Agreement Matters:

- **Strategic Security**: Enhances India's maritime leverage in the **Indo-Pacific**, reinforcing freedom of navigation and regional stability.
- Green Shipping: Supports India's push toward carbon-neutral maritime logistics under the Maritime Amrit Kaal Vision 2047.
- **Job Creation**: Taps into India's rich seafaring talent pool—currently constituting **nearly 10% of the global maritime workforce**.
- **Technological Progress**: Facilitates the transfer of **smart, sustainable technologies** to bolster India's shipbuilding and green logistics sectors.

## India-Japan Relations: A Multidimensional Partnership

## Historical & Cultural Ties:

• Rooted in ancient **Buddhist exchanges** and strengthened by the goodwill of historical figures like **Swami Vivekananda**, **Rabindranath Tagore**, and **Justice Radha Binod Pal**.

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• India was among the first nations to sign a **peace treaty with Japan in 1952**, waiving reparation claims and establishing early diplomatic warmth.

### **Strategic and Security Cooperation:**

- Both nations champion a **Free and Open Indo-Pacific (FOIP)** and collaborate under the **Indo-Pacific Oceans Initiative (IPOI)**.
- Active participants in the **Quad** (with the US and Australia) to promote regional security.
- Engage in joint military drills like **JIMEX** (naval) and **Dharma Guardian** (army), and maintain **2+2 ministerial dialogues**.
- Signed the **Acquisition and Cross-Servicing Agreement (ACSA)** and are discussing co-production of defense tech like the **UNICORN mast system**.

### **Economic Ties:**

- Bilateral trade touched **US\$ 22.85 billion in FY 2023-24**.
- Japan aims to invest 5 trillion yen (approx. 23.2 lakh crore) in India by 2027.
- Over **1,400 Japanese companies** operate in India; Japan is the **5th-largest FDI contributor**.
- The **Comprehensive Economic Partnership Agreement (CEPA)**, signed in 2011, facilitates bilateral trade.

### Infrastructure & Connectivity:

- Japan is a key partner in transformative projects like the **Mumbai–Ahmedabad Bullet Train**, and metro systems in **Delhi, Chennai, Bengaluru, and Ahmedabad**.
- Plays a major role in **Northeast India's development**, in line with India's **Act East Policy**.
- Promotes high-quality, sustainable infrastructure under the Partnership for Quality Infrastructure model.

### Energy and Technology Synergy:

- **Civil Nuclear Agreement (2017)** enables peaceful nuclear collaboration.
- **Space cooperation** includes the **Lunar Polar Exploration Mission** between **ISRO** and **JAXA**.
- Promotes clean and green Japanese technologies across Indian industries.

### **People-to-People Engagement:**

- Through the **Technical Intern Training Programme (TITP)** and **Specified Skilled Worker (SSW)** schemes, Japan is sourcing **skilled Indian manpower**.
- Cultural and academic exchanges continue to grow, underpinned by shared **Buddhist heritage** and increased youth interaction.

## **Conclusion: A Future Anchored in Maritime and Strategic Harmony**

This deepening maritime partnership reflects the evolving **India–Japan strategic axis**, built on mutual trust, cultural affinity, and shared democratic values. By combining India's growing maritime capacity and Japan's technological prowess, both nations are steering toward a future that ensures **regional peace**, **sustainable growth**, and **technological leadership in the Indo-Pacific**.

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# **Rising Heatwaves Threaten Labour Productivity and Economic Stability in India**

Weekly Current Affairs 02 to 08 June

Context: India is experiencing an alarming rise in extreme heatwaves, with 2024 and early 2025 registering record-breaking temperatures and early onset of heatwave conditions. These high temperatures are not only a climate crisis but also a labour and economic challenge for the nation.

### **Understanding Heatwaves: What Are They?**

To the Point

A heatwave is defined as a period of abnormally high temperatures relative to a region's climatic norms.

- For **plains**, a heatwave is declared when temperatures reach **40°C or more**. •
- For **hilly regions**, the threshold is **30°C or more**.
- The severity increases with **humidity**, **wind conditions**, and **duration** of the heat event.

### **Economic and Social Impacts of Heatwaves:**

### **Productivity Loss:**

- According to the **International Labour Organization (ILO)**, India lost approximately **\$100 billion** in productivity due to heat-induced disruptions.
- **Outdoor and informal workers**—such as **farmers**, **construction workers**, **delivery personnel**, and **street vendors**—are the worst hit.
- The World Bank reports that 75% of India's workforce—around 380 million people—are employed in heat-exposed sectors.

### **Agriculture and Food Security:**

- **Crop yields decline** dramatically with rising temperatures; for example, **wheat yields reduce by** 5.2% for every 1°C increase.
- Heat stress affects **livestock productivity**, decreasing milk output and increasing mortality.

### **Urban Heat Island Effect:**

- Cities experience higher nighttime temperatures due to **concrete structures trapping heat**. •
- Poor ventilation, lack of green spaces, and overcrowded housing worsen the urban heat burden, especially in Tier-II and Tier-III cities.

### **Geographic Vulnerability:**

- A **CEEW report** highlights that **57% of Indian districts** face **high heatwave risk**. ٠
- Delhi, Rajasthan, Tamil Nadu, and Uttar Pradesh are among the most vulnerable states.

### **Government Interventions and Gaps:**

### **Policy Measures:**

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Heat Action Plans have been launched at city and state levels, guided by NDMA protocols.

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Measures include:

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- Water kiosks and shaded shelters  $\cap$
- **Urban greening initiatives** 0



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- Public awareness campaigns
- Early warning systems (e.g., SMS alerts)

### **Model Initiatives:**

• Chennai has pioneered mapping urban heat islands to guide climate-resilient urban planning.

## **Challenges in Rural India:**

- Rural areas lack **adequate healthcare**, **cooling infrastructure**, and **heat monitoring systems**.
- Vulnerable populations, especially **daily-wage earners** and **marginal farmers**, are **underprotected**.

## What Experts Recommend:

- **Heat Insurance**: Insurance schemes to **protect income** for workers affected by heat-related job disruptions.
- **Compensation Models**: Structured support for **lost wages** during **heat advisories and shutdowns**.
- **Resilient Urban Development**: Long-term investments in **green buildings**, **cool roofs**, **tree cover**, and **sustainable city planning**.
- Healthcare Readiness: Strengthening emergency medical services in heat-prone districts.
- Data-Driven Heat Risk Mapping: Real-time data analytics and AI can improve heatwave forecasting and resource allocation.Conclusion: A Call for Urgent and Equitable Climate Action

The rising frequency and intensity of **heatwaves in India** is a clear indication of the **escalating climate crisis**. Beyond being a health hazard, it is a **major threat to economic productivity**, **food security**, and **social equity**.

To safeguard its workforce and sustain its growth, India must adopt a **comprehensive heat resilience strategy** that blends **short-term emergency response** with **long-term climate-smart planning**. **Inclusive, data-driven, and people-centric solutions** will be key to weathering the heat in the decades ahead.

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To the Point



### Aravalli Range: India's Ancient Shield and Ecological Guardian

**Context:** The **Central Government** has unveiled an ambitious plan to restore the ecological integrity of the Aravalli mountain range by developing a dense green cover under the Aravalli Green Wall Project. This initiative spans nearly 700 km from Gujarat to Delhi, aiming to combat land **degradation**, halt **desertification**, and strengthen **climate resilience** in the region.



### Aravalli Range: India's Oldest Fold Mountains

The Aravalli Range, estimated to be around 670 million years old, holds the distinction of being the oldest mountain range in India and one of the oldest fold mountains on Earth. In contrast to the younger Himalayas, the Aravallis have stood for hundreds of millions of years, shaping the geological and ecological history of the Indian subcontinent.

- Length: Approximately 692 km (430 miles), running northeast from Gujarat through Rajasthan and Haryana, and terminating in **Delhi**.
- **Topography:** Characterised by **rugged hills**, **rocky outcrops**, and **sparse vegetation**.
- **Function**: Acts as a **natural barrier** against the expansion of the **Thar Desert**, plays a pivotal role in climate moderation, supports biodiversity, and serves as a watershed for several rivers.

### **Geological Formation and Structure:**

- Formed during the **Proterozoic Eon**, the Aravallis emerged through **orogenic (mountain-building)** • processes caused by tectonic collisions.
- Composed primarily of metamorphic rocks, especially granite, gneiss, and schist.
- The range is a remnant of a **prehistoric mountain system** that has been heavily **eroded** over time.
- Aravalli rocks have also yielded marine fossils, such as trilobites and brachiopods, indicating the region's ancient undersea origins.

### **Key Ecological and Cultural Highlights:**

### **Peaks and Divisions:**

- Guru Shikhar in Mount Abu is the highest point (1,722 meters), named after Dattatreya, an incarnation of Vishnu.
- Dilwara Peak, also in Mount Abu, is the second-highest peak and home to the Dilwara Jain **Temples**, known for their **marble architecture** and historical significance.
- The range is divided into:
  - Sambhar-Sirohi Ranges: Higher elevations with peaks like Guru Shikhar. 0
  - 0 Sambhar-Khetri Ranges: Comprising three discontinuous ridges.

### Water FeaturesS

- Notable **rivers** originating or passing through the Aravallis include:
  - Sabarmati  $\cap$
  - Luni 0
- **Banas** (a tributary of Yamuna) 0 Download <u>Our Application</u> -







- Important lakes: Sambhar Lake, Nakki Lake, Ana Sagar Lake.
- Scenic waterfalls: Bhimlat, Kumbhalgarh, and Chitrakoot.

# **Biodiversity and Environmental Role:**

- Aravallis act as a **green corridor**, connecting **biodiversity hotspots** like the **Western Ghats** and the **Himalayas**.
- The forested areas shelter **leopards**, **jackals**, **hyenas**, and **several bird species**.
- The range is key to controlling **air pollution**, particularly in the **Delhi-NCR** region, by serving as a **windbreak** and **dust filter**.

# Mineral Wealth and Economic Significance:

- The Aravalli region is rich in **mineral resources**, including:
  - Copper
  - Zinc
  - Lead
  - o Marble
- This mineral wealth has historically supported mining industries, especially in Rajasthan, though unsustainable practices have also contributed to environmental degradation.

# Conservation Challenges and Restoration Efforts:

- Illegal mining, urbanisation, and deforestation have caused massive ecological damage, threatening the region's sustainability.
- The Aravalli Green Wall is inspired by Africa's Great Green Wall Project, aiming to revive degraded lands, enhance carbon sequestration, and promote eco-tourism.
- Experts suggest integrating community participation, strict enforcement of mining regulations, and sustainable livelihood generation to ensure long-term success.

## **Conclusion: A Legacy Worth Preserving**

The **Aravalli Range** is not just a relic of geological antiquity but a **living ecosystem**, **cultural heritage site**, and a **climate ally** for modern India. Efforts like the **Aravalli Green Wall Initiative** signal a **renewed commitment** to protect this vital natural asset, ensuring it continues to serve **future generations** as a **green shield** in an era of accelerating environmental change.

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# Mount Etna: Europe's Fiery Giant Roars Again

**Context: Mount Etna**, one of the world's most active volcanoes, recently erupted with dramatic force, spewing a towering column of **ash**, **smoke**, and **volcanic debris** several kilometres into the atmosphere. The explosive activity briefly disrupted air travel and alarmed nearby communities on **Italy's island of Sicily**. This latest eruption underscores Etna's **persistent geological volatility**.



## Mount Etna: A Towering Titan of the Mediterranean

- Location: Situated on the eastern coast of Sicily, Mount Etna overlooks the Ionian Sea and dominates the landscape as Europe's most active volcano.
- **Elevation**: It stands as the **tallest peak in Italy south of the Alps**, often exceeding **3,300 metres**, though its height changes frequently due to eruptions and ash deposits.
- **Geological Setting**: Etna lies at the junction of the **African and Eurasian tectonic plates**, making it a **hotbed of seismic and volcanic activity**.

### Crater System and Eruption Types:

- Etna's **summit** features **five primary craters**, while over **300 secondary vents**—ranging from small fissures to larger cones—dot its **flanks**.
- The recent eruption was of the Strombolian type, marked by moderately explosive bursts of gasrich magma. These eruptions hurl lava fragments, cinders, and scoria into the air, often accompanied by lava fountains and glowing nighttime displays.
- The term "Strombolian eruption" derives from Mount Stromboli, another Italian volcano known for its frequent, small-scale blasts.

### Historical and Cultural Significance:

- UNESCO World Heritage Site: Etna earned this status in 2013 due to its remarkable geological history and continuous scientific observation.
- **Eruptive Legacy**: Etna's activity can be traced back nearly **500,000 years**, with **documented records** spanning more than **2,700 years**, making it one of the most studied volcanoes on Earth.
- The volcano has long influenced **mythology and literature**, including ancient Roman beliefs that Etna was the forge of **Vulcan**, the god of fire.

### Scientific and Environmental Importance:

- **Natural Laboratory**: Etna provides invaluable data for **volcanology**, **geophysics**, and **climate research**, helping scientists understand the dynamics of magma movement, eruption forecasting, and plate tectonics.
- **Ecosystem Diversity**: The slopes of Etna host **diverse microclimates**, with vineyards, forests, and alpine flora spread across its elevation zones. The surrounding area is protected under the **Etna Regional Park**.

### **Risks and Preparedness:**

- Hazards: While most eruptions are not catastrophic, Etna poses risks such as:
  - $\circ$  Lava flows
  - Ashfall

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- Earthquakes
- Volcanic gas emissions
- Nearby cities, including Catania and Messina, maintain emergency response systems and real-time volcanic monitoring to ensure public safety.

### **Did You Know?**

- Etna's ancient name, "Aetna," is believed to derive from the Greek word "aitho", meaning "I burn."
- Its fertile volcanic soil supports a thriving **agricultural economy**, including the production of **oranges**, **olives**, **grapes**, and **pistachios**.
- Etna is one of the **Decade Volcanoes**, identified by the **International Association of Volcanology and Chemistry of the Earth's Interior (IAVCEI)** as worthy of special study due to its history of **large**, **destructive eruptions** and proximity to populated areas.

### Conclusion: Etna - Nature's Ever-Watchful Furnace

**Mount Etna** is more than a geological marvel; it is a **living force of nature**, shaping the land, culture, and livelihoods of Sicily. As it continues to rumble and blaze, it reminds us of Earth's dynamic power and the need for **respect**, **resilience**, **and preparedness** in the face of natural phenomena.

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### Vietnam Abandons Two-Child Policy Amidst Falling Birth Rates

**Context: Vietnam** has officially scrapped its longstanding **twochild policy** as the country grapples with a sharp decline in birth rates. Once introduced to curb population growth, the policy is now seen as a hindrance to **economic vitality and workforce sustainability**. The move aligns Vietnam with other Asian nations facing similar demographic challenges such as **South Korea, Japan, and China**.

### Vietnam: Geopolitical and Geographical Overview

### Political and Geographic Location:

- Capital: Hanoi
- **Region**: Located on the **Indochina Peninsula** in **Southeast Asia**, Vietnam enjoys strategic significance both on land and at sea.
- Land Borders: Shares borders with China (north), Laos (northwest), and Cambodia (southwest).



• Maritime Boundary: Faces the Eastern Sea, internationally recognized as the South China Sea, to its east, giving it access to critical maritime trade routes.

### Climate and Natural Features:

- **Climate:** Predominantly **tropical**, with **high humidity and temperatures** throughout the year. Seasonal monsoons bring heavy rainfall, influencing agriculture and water supply.
- Major Rivers:
  - **Mekong River** (in the south): A lifeline for agriculture and fisheries, especially in the **Mekong Delta**.
  - **Red River** (in the north): Vital for Hanoi and the northern plains.
- Ha Long Bay–Cat Ba Archipelago: A stunning seascape of limestone pillars and forested islands, recognized as a UNESCO World Natural Heritage Site, and a major tourism draw.

### **Economic Highlights and Global Standing:**

- Vietnam is emerging as a **manufacturing hub in Asia**, benefiting from global supply chain shifts.
- As of **2022**, Vietnam ranked among the **top five producers** of:
  - o **Tungsten**
  - Cement
  - Fluorspar
- It is also a significant exporter of **electronics**, **textiles**, **footwear**, and **agricultural products** such as **coffee and rice**.
- **Foreign investment** has surged, particularly from **Japan, South Korea, and the USA**, driven by Vietnam's stable economic environment and skilled labor force.

### Why the Policy Shift Matters:







- Vietnam's fertility rate has dipped below 2.1 births per woman, the replacement level needed to sustain population growth.
- With a rapidly aging population, Vietnam faces future shortages in labor force participation, straining social security and healthcare systems.
- Scrapping the two-child policy aims to encourage larger families, ensuring economic sustainability and generational balance.

### **Did You Know?**

- Vietnam's **Golden Population Structure**—where the working-age population significantly • outnumbers dependents—was expected to be its economic strength. However, shrinking family sizes now threaten that advantage.
- The country has begun integrating **AI and automation** into industry to offset labor shortages.
- Hanoi and Ho Chi Minh City are emerging tech hubs in ASEAN, fostering innovation in fintech, green energy, and e-commerce.

### **Conclusion: Balancing Growth and Sustainability**

As Vietnam enters a new demographic chapter, it seeks to balance economic growth, social equity, and environmental sustainability. Removing the two-child cap reflects a strategic pivot—one that prepares the country not only to tackle demographic decline but to enhance its role as a resilient, forward-looking nation in Asia.

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A Star with a Secret: Mysterious Celestial Object Emits Radio Waves and X-Rays Every 44 Minute

**Context:** Astronomers have detected a **rare and puzzling stellar object** in our galaxy that is emitting **both radio waves and X-rays every 44 minutes**—a phenomenon never observed in this combination and rhythm before. This **cosmic oddity**, located about **15,000 light-years away** in the **constellation Scutum**, is being hailed as a potential member of a **newly classified group of celestial bodies** called **long-period radio transients**.



## What Makes This Star Special?

Unlike typical **pulsars**, which emit bursts of radio waves within **milliseconds to seconds** due to their ultrafast spin, **long-period radio transients** release powerful **radio emissions over minutes to hours**, making them **exceptionally slow blinker-stars** in astronomical terms.

This object stands out because it **consistently emits synchronized radio and X-ray pulses**, an extremely rare dual-energy behavior that challenges current astrophysical models.

### Location in the Galaxy:

- Galaxy: Milky Way
- Distance from Earth: Approximately 15,000 light-years
- **Region**: Near the **Scutum constellation**, a star-rich area along the galactic plane

## Possible Identities of the Mysterious Object:

Scientists are yet to determine the exact nature of this object, but several **theoretical candidates** have been proposed:

### Magnetar:

A highly magnetized neutron star that spins slowly but emits intense bursts of energy. Magnetars have the strongest known magnetic fields in the universe—a trillion times stronger than Earth's.

### White Dwarf in a Binary System:

A **white dwarf**, the **remnant core** of a sun-like star, might be in a **binary pair** with a companion star. Interaction between the two could be triggering the unusual emission pattern.

- **Formation of White Dwarfs**: Stars up to **8 times the mass of the Sun** exhaust their fuel, become red giants, shed outer layers, and collapse into a dense, Earth-sized core.
- These stellar remnants, though no longer undergoing fusion, can still **radiate energy** due to gravitational and magnetic interactions.

### **Powerful Tools Behind the Discovery:**

The research team used data from **NASA's Chandra X-ray Observatory**, alongside several **international radio telescopes**, to detect and analyze these synchronized bursts.

- Radio Waves: Low-frequency, long-wavelength electromagnetic waves often used in communication systems.
- **X-Rays**: **High-frequency, short-wavelength** waves capable of penetrating dense material, commonly used in **medical diagnostics** and **astronomy** to observe high-energy phenomena like black holes and neutron stars.

### Why It Matters:





This discovery not only **expands our understanding** of exotic stellar remnants but may also help scientists **redefine categories** of celestial bodies. It points to **unknown types of star systems** or **energy emission mechanisms** that have yet to be fully understood.

## **Did You Know?**

- Long-period radio transients were first hinted at only recently and remain largely mysterious.
- A single **neutron star** has more mass than the Sun but is only about 20 km in diameter—**so dense that a teaspoon of it would weigh billions of tons**.
- **X-ray astronomy** can peer through clouds of cosmic dust that obscure visible light, offering a clearer view of dense stellar phenomena.

# Conclusion: A Signal from the Cosmic Unknown

This **enigmatic star-like object**, blinking across radio and X-ray wavelengths every 44 minutes, opens a new chapter in **high-energy astrophysics**. Whether it turns out to be a **magnetar**, a **white dwarf binary**, or an entirely **new class of stellar remnant**, it reminds us that **the universe still holds many secrets**—and we've only just begun to uncover them.

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India's Digital Asset Boom: Regulating the Future of Cryptocurrencies and NFTs

**Context:** India is witnessing an explosive rise in **Virtual Digital Asset (VDA)** adoption, especially at the grassroots level. With over **\$6.6 billion invested** by retail investors and a projected 800,000 jobs in the sector by 2030, India stands at the cusp of a financial revolution. However, this growth comes against the backdrop of an evolving yet uncertain regulatory environment that urgently needs clarity and structure.



# What Are Virtual Digital Assets (VDAs)?

Virtual Digital Assets are digitally stored, transferrable, and tradable representations of value. They exist primarily on **blockchain networks** and include:

- Cryptocurrencies: Decentralized digital currencies like Bitcoin and Ethereum that use cryptographic algorithms to secure transactions and verify ownership.
- Non-Fungible Tokens (NFTs): Unique digital items (art, music, in-game assets) with verified ownership, often representing real-world rights or identity.

These assets are increasingly being used not only for **investment and payment** but also for **tokenizing real**world assets like real estate, artworks, and intellectual property.

# India's Legal Framework: A Step Towards Mainstream Recognition

The **Income Tax Bill**, **2025** marks a **turning point** for the VDA ecosystem in India by:

- Classifying **cryptocurrencies and NFTs** as **capital assets**. •
- Taxing gains from VDA sales or transfers under **capital gains tax**, similar to **stocks and real estate**.

This move brings India in line with global regulatory standards, as seen in the United Kingdom, United **States, and Australia**, offering legal clarity and deterring misuse of digital assets for illicit financial activity.

Additionally, since March 2023, VDAs fall under the scope of the Prevention of Money Laundering Act (PMLA), 2002, strengthening compliance and improving oversight.

# **Global Insights: Learning from International Standards:**

- International bodies like the IMF and FATF push for risk-based regulation supported by Virtual Asset Service Providers (VASPs).
- VASPs act as compliant domestic intermediaries that aid in AML (Anti-Money Laundering) and CFT (Countering the Financing of Terrorism) frameworks.
- In India, VASPs have stepped up by enhancing cybersecurity, creating insurance funds, and following industry-wide guidelines, particularly after the \$230 million crypto exchange hack in 2024.

# India's Regulatory Dilemma: Innovation vs. Control

India's strict capital control policies and centralized banking systems often conflict with the decentralized architecture of VDAs. This has led to several challenges:

- In **2018**, the **RBI banned banks** from dealing in crypto—later overturned by the **Supreme Court in** 2020.
- In **2022**, the government introduced:
  - **30% tax on gains** from VDAs  $\circ$

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• **1% TDS** on transactions above 10,000

# • No offsetting of losses

These measures drove a large portion of **crypto trading offshore**, causing **tax revenue losses exceeding 2,488 crore** and increased use of **unregulated platforms** accessed through **VPNs and proxy networks**.

## Supreme Court's Recent Take:

In **May 2025**, the **Supreme Court of India** acknowledged the disconnect between the **rapidly growing crypto ecosystem** and the absence of a **comprehensive regulatory framework**. The Court warned that merely banning or ignoring VDAs is **not a sustainable policy approach**, as it does not reflect **on-ground realities**.

## The Road Ahead: Building a Balanced Framework:

India must act swiftly to **build a regulatory framework** that is:

- Transparent and innovation-friendly
- Investor-protective
- Globally aligned
- Supportive of domestic VASP growth
- Focused on **cybersecurity and tax compliance**

A robust policy could turn India into a **global hub for digital assets**, capitalizing on its **tech talent**, **startup ecosystem**, and **youth-driven digital economy**.

## Did You Know?

- India ranks #1 in grassroots crypto adoption (Chainalysis 2023).
- Over 100+ Indian startups operate in the blockchain and Web3 space.
- The **G20 Summit 2023**, under India's presidency, prioritized **global crypto regulation** as a key agenda item.

## Conclusion: From Regulation to Leadership

India stands on the edge of a historic opportunity to shape the **future of finance** through **Virtual Digital Assets**. A well-structured, adaptive regulatory regime can unlock **economic growth, technological advancement**, and **global leadership**—ensuring India doesn't just participate in the digital revolution but leads it.

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# Rare Sighting in Kerala: Caspian Gull Spotted for the First Time

**Context:** In a significant development for India's birding community, a **Kozhikode-based ornithologist** has recorded the **first-ever sighting of the rare migratory bird, the Caspian Gull (***Larus cachinnans***)**, in **Kerala**. This unexpected appearance marks a new milestone in the documentation of avian biodiversity in the region.



### Meet the Caspian Gull: A Rare Avian Wonder

The **Caspian Gull** is a **large, monotypic, white-headed gull** species and one of the **least commonly observed gulls** in India. Despite its wide range, it is often overlooked due to its **close resemblance to the Steppe Gull**, making accurate identification a challenge even for experienced birders.

### **Preferred Habitat:**

This species prefers **flat**, **low-lying areas near water bodies**, especially during the breeding season. It typically nests:

- Around **steppe lakes**
- In semi-desert reservoirs
- Along grassy or shrubby river islands
- Near reedbed-covered lakes, mostly in Central Asia

### These habitats offer ideal conditions for nesting and feeding.

### **Diet and Feeding Behavior:**

The **Caspian Gull's diet** is varied and opportunistic. It mainly feeds on:

• Fish

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- Invertebrates like insects and mollusks
- Occasionally scavenges on carrion and human waste in urban or coastal areas

Its **foraging habits** make it adaptable to both natural and semi-urban environments.

## **Migratory Route and Seasonal Movement:**

Although commonly found in **Central Asia**, the Caspian Gull **winters in parts of northwestern India**, such as **Gujarat**. Its traditional migratory path includes:

- Breeding in regions near the Black Sea and Caspian Sea
- Migrating through southern and eastern Kazakhstan, western China
- Wintering in western India, the Persian Gulf, eastern Mediterranean, and parts of Africa

Interestingly, in recent years, **increasing numbers** have been recorded wintering in **northern and western Europe**, including countries like **Sweden**, **Denmark**, **and Norway**.

### **Conservation Status:**

According to the **IUCN Red List**, the **Caspian Gull is classified as "Least Concern"**, indicating a **stable global population**. However, sightings in southern India are **extremely rare**, making this Kerala observation **noteworthy for conservationists and researchers**.

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### **Did You Know?**

- The Caspian Gull was once considered a subspecies of the **Herring Gull**, but was **reclassified as a distinct species** due to genetic and morphological differences.
- It exhibits **regional plumage variations**, which often complicate its field identification.
- Gulls play a vital ecological role as **natural scavengers**, helping maintain the health of aquatic and coastal ecosystems.

# **Conclusion: A Rare Visitor Brings New Insight**

The sighting of the **Caspian Gull in Kerala** offers fresh data for ornithologists and highlights India's **importance as a migratory hub** for birds from across Eurasia. This rare appearance is a **reminder of the rich biodiversity** in India and the need for continued research and conservation efforts to **monitor avian migration patterns** in the face of climate change and habitat loss.

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# **Raigad Fort: A Timeless Symbol of Maratha Pride and Power**

Weekly Current Affairs 02 to 08 June 2025

**Context:** In a significant archaeological breakthrough, a 'Yantraraj' (astrolabe) has been unearthed at Raigad Fort, the historic capital of Chhatrapati Shivaji Maharaj. This ancient scientific instrument was discovered during a joint excavation by the Archaeological Survey of India (ASI) and the Raigad **Development Authority**, highlighting the fort's **cultural and scientific legacy**.



# Raigad Fort: The Maratha Citadel in the Sahyadris

**Raigad Fort**, majestically perched in the **Raigad district of Maharashtra**, stands as an enduring ٠ emblem of the Maratha Empire. Located in the rugged Sahyadri ranges (Western Ghats), the fort rises 2,700 feet above its base and reaches an altitude of 4,449 feet (1,356 meters) above sea level, offering commanding views of the surrounding valleys.

The fort is uniquely isolated, **surrounded by the Kal and Gandhari river valleys**, and is accessible only through a **steep path and flight of steps**—a natural defense mechanism.

### Strategic Architecture and Features:

- The fort's architecture reflects meticulous military planning, with multi-layered fortifications, robust **bastions**, and fortified **gateways** designed to resist siege and assault.
- An artificial reservoir, known as 'Ganga Sagar Lake', enhances both the beauty and utility of the fort.
- The 'Hirkani Buruj', a watchtower with an emotional legend of maternal bravery, stands tall on the edge of a steep cliff.
- The fort's design made it nearly impregnable, earning it the title "Gibraltar of the East" from foreign • travelers and historians.

## Historical Significance:

- Originally under the control of Chandraraoji More, the King of Jawali, Raigad was captured by Chhatrapati Shivaji Maharaj in 1656.
- After extensive renovation, Shivaji Maharaj crowned himself as Chhatrapati (Emperor) in 1674, formally establishing Raigad as the capital of the Maratha Empire.
- The fort became the **administrative**, **political**, **and cultural center** of the empire, housing the royal court, treasury, and residential quarters.
- It witnessed pivotal events in Maratha history, including the coronation ceremony known as the Rajyabhishek.

## **Colonial Encounters and Decline:**

- In **1765**, **British East India Company** forces launched an armed campaign targeting the fort.
- On May 9, 1818, the British looted and partially destroyed Raigad, marking the end of its role as a military stronghold.

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### **Did You Know?**

- The **'Yantraraj' discovered at Raigad** suggests the **Maratha court's interest in astronomy and navigation**, showcasing its **scientific temperament**.
- The fort originally had **seven gateways**, each strategically positioned to slow enemy advancement.
- A **Ropeway System** now provides easier access for tourists, enhancing its popularity as a heritage destination.
- The **Samadhi (memorial)** of Chhatrapati Shivaji Maharaj lies within the fort premises, drawing **countless devotees and patriots** every year.

## Legacy of Raigad:

**Raigad Fort** is more than a historical site—it is a **living symbol of Maratha valor, governance, and vision**. With renewed archaeological interest and preservation efforts, the fort continues to inspire generations and narrate the **glorious saga of one of India's greatest warrior-kings**.

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To the Point Weekly Current Affairs 02 to 08 June 2025

India Accelerates Toward Green Mobility: New Guidelines to Boost EV Manufacturing

**Context:** In a decisive move to strengthen India's electric vehicle (EV) manufacturing ecosystem, the **Ministry of Heavy Industries** has released detailed guidelines under the **Scheme to Promote Manufacturing of Electric Passenger Cars in India (SPMEPCI)**. Originally announced on **March 15, 2024**, this ambitious scheme aims to attract global EV giants by offering **reduced import duties** in exchange for **significant domestic investments**.



While major players like **Tesla** have expressed interest in setting up showrooms in India, they remain hesitant about manufacturing commitments. The scheme is part of India's broader strategy to build a **self-reliant EV industry**, cut emissions, and reduce dependence on fossil fuels.

### Key Provisions of the SPMEPCI Scheme:

### Lower Import Tariffs for Strategic Entry:

- EV manufacturers can import up to 8,000 electric cars per year at a reduced customs duty of 15% (down from the prevailing 70–100%).
- This benefit is valid for **five years** from the date of application approval.
- Applicable only on **Completely Built Units (CBUs)** with a **minimum CIF value of \$35,000**.

### Minimum Investment Requirements:

- Companies must invest at least **4,150 crore** in India to qualify.
- Manufacturing must begin within 3 years of the application's approval.
- Eligible expenses include:
  - New manufacturing plants and machinery
  - Engineering research and development (ER&D)
  - **Charging infrastructure** (up to 5% of the investment)
  - **New building construction** (capped at 10% of the investment)
  - *Land costs are excluded* from investment calculations.

## **Domestic Value Addition (DVA) Goals:**

- Achieve 25% local value addition within 3 years
- Achieve **50% local value addition** within **5 years**

# Safeguards to Ensure Compliance:

- Companies must submit a **Bank Guarantee** from a scheduled Indian bank, amounting to the **higher** of either 6,484 crore or 4,150 crore.
- This guarantee remains valid throughout the tenure of the scheme.
- It ensures that manufacturers **fulfill their investment and production commitments**.

# Eligibility to Participate:

# To qualify, applicants must:

- Have a **global automotive revenue** of at least **10,000 crore**.
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Submit a **non-refundable application fee** of **5,00,000**.

### **Application Process and Timeline:**

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- Application window will be open for a **minimum of 120 days**, likely beginning in **June 2025**.
- The Ministry reserves the right to reopen the window **until March 15, 2026**.
- Companies are expected to showcase long-term commitment to Indian manufacturing. ٠

### **Complementary EV Ecosystem Schemes in India:**

India has rolled out several interlinked policies to enhance the electric vehicle value chain:

- 1. PM E-DRIVE Scheme (2024): Promotes adoption of e-2W, e-3W, e-Trucks, e-Ambulances, and e-Buses, along with support for charging infrastructure and vehicle testing upgrades.
- 2. Production Linked Incentive (PLI) Scheme for Auto & Auto Components (2021): Focuses on promoting the manufacture of Advanced Automotive Technology (AAT) products.
- 3. PLI Scheme for Advanced Chemistry Cells (ACC) (2021): Aims to create a 50 GWh battery manufacturing capacity, essential for EV scalability.
- 4. FAME-II: Supports domestic EV manufacturing and encourages value addition within India through component localization.
- 5. PM e-Bus Sewa Payment Security Mechanism (PSM): Seeks to deploy 38,000+ electric buses, making public transport greener and cleaner.

### A Vision Aligned with Sustainability and Self-Reliance:

This policy is a landmark initiative in India's **net-zero emissions journey**. It aims to position India as a global EV manufacturing hub, while delivering local economic benefits, including:

- **Employment** generation
- Technological advancement
- **Boosting green infrastructure** •

### **Did You Know?**

- India's EV market is projected to reach **\$150 billion by 2030**.
- With initiatives like **SPMEPCI**, India is expected to reduce **oil imports by 64% for road transport** by 2030.
- More than **2.3 million EVs** are already on Indian roads as of 2025, according to Vahan data.

### **Conclusion:**

The SPMEPCI scheme is a robust move toward a clean, connected, and competitive future. With its strategic incentives and performance-based benchmarks, India is making an assertive pitch to become the **global hub for EV manufacturing**, while ensuring a sustainable and inclusive green mobility revolution.

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# To the Point Weekly Current Affairs 02 to 08 June 2025

### Paraguay in the Spotlight: South American Nation Gains Attention with Recent Visit to India

**Context:** A high-level visit by a Paraguayan resident to India has brought renewed focus on this strategically located South American country. While diplomatic relations between India and Paraguay continue to strengthen, the visit also offers a chance to learn more about this lesser-known yet geopolitically significant nation.

### Paraguay: Key Political and Geographical Insights

### **Location and Borders:**

- **Paraguay** is a **landlocked country** located in **southcentral South America**.
- It shares its borders with:
  - Bolivia to the northwest and north
  - Brazil to the northeast and east
  - Argentina to the southeast, south, and west

### **Capital City:**

• The capital of Paraguay is **Asunción**, one of the oldest cities in South America and a major cultural and administrative hub.

### Geographical Features of Interest:

### Major Rivers:

- Paraguay is traversed by several important rivers, including:
  - Paraguay River
    - FOOL THER WE SCALE F
  - Paraná River
  - Apa River
  - Pilcomayo River

These rivers not only define natural borders but are also crucial for:

- Access to the Atlantic Ocean
- Transport and navigation
- Hosting some of the **world's largest hydroelectric power plants**, such as the **Itaipu Dam** on the Paraná River (jointly operated with Brazil), making Paraguay a **top global exporter of hydropower**.

### **Climatic Marker:**

• The **Tropic of Capricorn** runs through Paraguay, influencing its **subtropical climate** and diverse ecosystems.

### **Topography:**

• The **highest peak** in Paraguay is **Cerro Pero**, a modest elevation that offers panoramic views of the surrounding landscape and reflects the relatively flat terrain of the country.

## **Did You Know?**

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- Paraguay has one of the **lowest population densities** in South America.
- It is one of only two landlocked countries on the continent (the other being **Bolivia**).
- Guarani, along with Spanish, is an **official national language**, and the country has **deep indigenous cultural roots**.
- Paraguay uses a **riverine navy** despite being landlocked, underscoring the strategic importance of its waterways.

### **Conclusion:**

Paraguay may not often make headlines, but its **rich natural resources**, **strategic hydroelectric capabilities**, and **diplomatic outreach** position it as an **emerging partner** in global affairs. As ties with India grow, there's increased potential for **bilateral trade**, **energy collaboration**, and **cultural exchange** between the two nations.

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**Global Action for Glacial Protection: Tajikistan Hosts Historic UN Conference** 

**Context:** In a landmark step towards combating climate change, **Tajikistan hosted the 1st United Nations International Conference on Glaciers' Preservation** in **Dushanbe**, in partnership with **UNESCO** and the **World Meteorological Organization (WMO)**. This pivotal event led to the adoption of the **Dushanbe Glaciers Declaration**, underscoring the urgent need for collective global action to protect the world's fast-disappearing glaciers.



## What Are Glaciers and Why Do They Matter?

**Glaciers** are **massive**, **slow-moving rivers of ice** formed over centuries from accumulated and compacted snow. They are primarily found in **polar regions**—such as **Antarctica**, **Greenland**, and the **Canadian Arctic**—but also exist in high-altitude regions near the **Equator**, including the **Andes** and the **Himalayas**.

### Why Glaciers Are Crucial for Earth's Ecosystems:

- **1. Source of Freshwater:** Only **3% of Earth's water** is freshwater—and an astonishing **70% of this is locked in glaciers**. As they melt, glaciers provide a **vital water source** for billions of people, particularly in **Asia**.
- 2. Sustaining River Systems: The Hindu Kush Himalayas (HKH) are often called the "Water Tower of Asia." They feed ten of Asia's major river systems and contribute nearly 40% of the Indus River's annual flow.
- **3. Climate Time Capsules:** Glaciers act as **natural archives**, preserving **climate records** going back **up to 800,000 years**. Scientists study glacial ice cores to understand historical shifts in Earth's temperature and atmospheric composition.
- **4. Monsoon Regulation:** The **temperature contrast** between the **Himalayan glaciers** and the **Indian Ocean** plays a vital role in driving the **Southwest Monsoon**, which is critical for agriculture in the Indian subcontinent.

### Glaciers in Peril: Global Warnings:

- **Nepal** recently lost the **Yala Glacier** in the Langtang region due to rapid melting.
- **Venezuela** has now become the **second country after Slovenia** to lose all its glaciers—raising alarms for tropical glacier preservation.

### **Initiatives to Safeguard Glaciers:**

### National Efforts (India):

- **National Mission for Sustaining the Himalayan Ecosystem (NMSHE)**: Focuses on protecting the fragile Himalayan environment and its biodiversity.
- **Centre for Cryosphere and Climate Change Studies**: Researches glacier dynamics and climate interactions.
- **Glacial Lake Outburst Flood (GLOF) Risk Mapping**: Assesses and mitigates risks associated with sudden glacial lake floods.

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### **Global Measures:**











- International Year of Glaciers' Preservation 2025: Declared to increase global awareness.
- **Decade of Action for Cryospheric Sciences (2025–2034)**: Promotes long-term scientific study and policy action.
- **International Centre for Integrated Mountain Development (ICIMOD)**: A regional intergovernmental body fostering sustainable development in mountain regions, especially in the Hindu Kush Himalayas.

### **Did You Know?**

- **Tajikistan** is home to over **8,000 glaciers**, and the **Fedchenko Glacier** is the **largest in the world outside the polar regions**.
- The Himalayas alone store more freshwater than all the lakes and rivers in Southeast Asia combined.

# **Conclusion: A Race Against Time**

The Dushanbe Conference and the adoption of the **Dushanbe Glaciers Declaration** mark a **turning point** in **global cryospheric conservation**. As climate change accelerates glacier retreat, preserving these frozen reservoirs is not just about saving ice—it's about **securing water, food, climate stability, and life itself** for future generations.

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### NDA Welcomes Women Cadets: A New Chapter in India's Armed Forces

**Context:** In a groundbreaking development, **17 women cadets** from the **148th batch of the National Defence Academy (NDA)** have graduated in **2025**, marking a **transformational shift** in the history of Indian defence. This momentous achievement opens the path for **women to rise to top leadership positions** in the Indian Armed Forces—positions that were, until recently, only accessible to men.



## A Long Journey to NDA: Tracing the Path of Women in Uniform

The road to the NDA has been long and challenging for Indian women, with roots stretching back to colonial times.

- **1888**: Women first entered the Indian military through the **Military Nursing Service** under British rule.
- **1958**: The **Army Medical Corps** began granting **regular commissions to female doctors**, expanding their professional role.
- 1992–2008: With the introduction of the Women Special Entry Scheme (WSES), women joined noncombat roles as Short Service Commission (SSC) officers. In 2008, eligibility for Permanent Commission (PC) was extended to women in the Judge Advocate General (JAG) and Army Education Corps (AEC).
- 2019–2020: Women gained access to PC in eight more non-combat streams, and in 2020, a landmark Supreme Court judgment guaranteed them command roles—a pivotal win for gender equality in the forces.
- **2021**: The Supreme Court directed the NDA to **admit women**, ending decades of exclusion. The 17 cadets graduating in 2025 are the **first batch of women ever trained at the NDA**, symbolizing a **new era of inclusion**.

Training the Future: Women's Integration into NDA Squadrons

## A Growing Cadet Force:

Since the policy change in **2022**, the NDA has admitted **126 women cadets** across several batches, integrating them into its elite training ecosystem.

### **Equal Footing Through Gender-Neutral Training:**

The NDA has adopted a **gender-neutral training framework**, meaning male and female cadets **train together** under the same regimen. There are **no special concessions**—cadets, regardless of gender, march, drill, study, and lead as one unit.

### **Drawing from Experience:**

To shape this progressive model, the NDA drew inspiration from established institutions like:

- Officers Training Academy (OTA), Chennai
- Indian Naval Academy (INA), Ezhimala
- Air Force Academy (AFA), Dundigal

These academies have trained women SSC officers since the 1990s and offered valuable insights into **inclusive military training**.

### From Separate Living to Full Integration: *Download <u>Our Application</u>*







Initially accommodated in **separate hostels**, women cadets are now **fully integrated** into the NDA's **18 squadrons**—the core units where cadets live, train, and form lifelong bonds. This marks a critical step in fostering **equal camaraderie and leadership development**.

### Women Cadets Marching Toward Leadership:

For decades, women officers joined through **direct entry** in limited branches with little to no access to **command roles** or **career longevity**. NDA training changes that narrative entirely.

- Women now receive **early, structured, and long-term training**, giving them the chance to serve for **35–40 years**—a key factor in becoming **service chiefs**.
- Cadets are being prepared for potential **combat command roles**—in units like **infantry**, **artillery**, **warships**, and **fighter squadrons**—crucial for high-rank promotions.

### **Challenges Ahead: Reforming Culture and Infrastructure**

Despite these strides, senior defence officials stress the need for **deeper structural reforms**:

- Combat branches still remain partially restricted to women.
- Support systems must be strengthened, including:
  - Maternity leave and childcare policies
  - Family and spousal postings
  - **Promotion guidelines**
  - Gender-friendly infrastructure on bases and academies

### Conclusion: A Future Built on Equality and Excellence

The graduation of women from the NDA is more than ceremonial—it's symbolic of a force ready to evolve. It reflects India's shifting mindset toward gender parity, not only in society but also in one of its most respected and demanding institutions.

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### Kawal Tiger Reserve: Strengthening Wildlife Corridors in Telangana

**Context:** In a major boost to wildlife protection and ecological connectivity, the **Telangana State Government** has officially notified the **tiger corridor** linking the **Kawal Tiger Reserve** with **Tadoba-Andhari Tiger Reserve** in **Maharashtra** as the **'Kumram Bheem Conservation Reserve'**. This vital corridor will ensure safer movement for tigers and other wildlife species between protected areas, enhancing the **Central Indian Tiger Landscape**.



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### Where is Kawal Tiger Reserve Located?

The **Kawal Tiger Reserve** (**KTR**) is situated in the northern region of **Telangana**, along the banks of the **Godavari River**, and forms a part of the **Deccan Peninsula–Central Highlands**. It lies in the **Sahyadri Mountain Ranges**, making it a key ecological zone for wildlife conservation.

- Geographic Importance: Kawal is located at the southernmost tip of the Central Indian Tiger Landscape.
- It shares ecological linkages with **Tadoba-Andhari Tiger Reserve** (Maharashtra) and **Indravati Tiger Reserve** (Chhattisgarh), forming a critical wildlife corridor for big cats and other species.

### Natural Wealth: Vegetation and Biodiversity:

### Flora:

The landscape of Kawal is classified as **Southern Tropical Dry Deciduous Forests**, with a rich and diverse mix of plant species:

- **Dominant Tree Species**: Teak, Bamboo
- Associated Flora:
  - Ano<mark>geissus la</mark>tifolia
  - Mitragyna parviflora
  - o Terminalia crenulata
  - Terminalia arjuna
  - Boswellia serrata

These plant communities not only support herbivores but also play a crucial role in the overall ecological balance of the forest.

### Fauna:

Kawal Tiger Reserve is home to a wide variety of **wildlife species**, ranging from herbivores to apex predators:

- Carnivores: Tiger, leopard, wild dog, jungle cat, wolf, jackal, fox
- Herbivores: Spotted deer, sambar, nilgai, chinkara, blackbuck, four-horned antelope (chousingha)

**Fun Fact**: The **four-horned antelope**, or *Tetracerus quadricornis*, found here, is one of the rarest antelopes in the world and endemic to India.

### Legal Provision: Declaring a Conservation Reserve

Under Section 36(A) of the Wildlife (Protection) Act, 1972, the State Government is empowered to designate certain state-owned lands as Conservation Reserves. These are typically areas:

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- Adjacent to national parks or wildlife sanctuaries
- Linking one protected area to another

The goal is to **protect landscapes**, **biodiversity**, **and critical wildlife corridors**, ensuring **free movement of species** and preserving **habitats** from encroachment or fragmentation.

Why Conservation Corridors Like Kumram Bheem Matter:

- Ensures genetic diversity by allowing free movement of wildlife between isolated reserves.
- Helps in reducing human-animal conflict by guiding animal movement through protected paths.
- Supports climate resilience and biodiversity conservation across a broader ecological range.
- Acts as a **buffer zone**, minimizing pressure on the core tiger reserves.

**Extra Insight**: Wildlife corridors are becoming increasingly important in India due to **habitat fragmentation** caused by infrastructure development. Establishing and securing such corridors is now a top priority for **Project Tiger** and other conservation efforts.

# **Conclusion: A Step Toward Stronger Wildlife Conservation**

The designation of the **Kumram Bheem Conservation Reserve** is not just an administrative move—it's a significant stride toward **integrated wildlife management** in India. By fortifying the link between **Kawal and Tadoba**, Telangana is playing a vital role in **securing the future of the tiger population** and maintaining **ecological balance** in the region.

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To the Point Weekly Current Affairs 02 to 08 June 2025

Bayraktar TB2: Rise, Reach, and Recent Setbacks of Turkey's Armed Drone

**Context:** The **Bayraktar TB2**, Turkey's most celebrated combat drone, has encountered a serious reputational setback. During **Pakistan's Operation Sindoor**, the **Turkish-origin UAV fleet reportedly underperformed**, casting doubt on the drone's real-world combat efficiency under high-stress conditions. The event has raised fresh questions about the capabilities of these drones when deployed in complex operational environments.



## What is the Bayraktar TB2?

The **Bayraktar TB2** is a **Medium Altitude Long Endurance** (MALE) tactical **Unmanned Aerial Vehicle** (UAV), designed and manufactured by **Turkey's Baykar Technologies**. It plays a pivotal role in modern **ISR** (Intelligence, Surveillance, Reconnaissance) and precision strike missions.

- It is **Turkey's first domestically developed armed UAV**, symbolizing a significant milestone in the country's defense innovation.
- The TB2 gained global attention after its effective use in conflicts like Libya, Nagorno-Karabakh, and Ukraine, where it was credited with disabling tanks and artillery systems.

### Key Features of Bayraktar TB2:

Design & Build:

- High-wing monoplane configuration improves flight stability and fuel efficiency—ideal for extended missions.
- A **tailplane** enhances aerodynamic performance, especially in turbulent airspaces.

### Specifications:

- Wingspan: 12 meters
- Length: 6.5 meters
- Height: 2.2 meters
- Range: Operates up to 300 km from its base using line-of-sight communications
- Endurance: Capable of staying airborne for up to 27 hours
- Payload: Supports up to 150 kg, including MAM-L laser-guided munitions
- Speed: Maximum speed of 130 km/h, cruising at 100 km/h

### **Sensors and Armaments:**

- Equipped with:
  - Electro-optical and infrared cameras (day/night operation)
  - Laser rangefinders and designators
  - **Target tracking systems**
- Compatible with **precision-guided weapons**, such as the **MAM-L and MAM-C smart micro munitions**, developed by Roketsan.

### **Cost-Effective Warfare:**

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One of the key appeals of the Bayraktar TB2 is its **affordability** and **ease of maintenance**. Built largely from **commercial off-the-shelf components**, the TB2 offers:

- Low production costs
- Simple logistics
- Scalability for developing nations

This has led to its widespread export to countries such as **Azerbaijan**, **Ukraine**, **Qatar**, **Poland**, and **Pakistan** — often touted as a "drone of the people" in military circles.

### **Operational History: From Success to Setback**

- Widely used in multiple conflicts, the TB2 earned a reputation for precision and effectiveness in asymmetric warfare.
- It became a symbol of **Turkey's emerging defense industry**, transforming it into a sought-after drone supplier.
- However, during **Operation Sindoor**, **Pakistan's fleet of TB2s reportedly failed to meet mission expectations**, indicating possible **limitations in electronic warfare resistance**, **real-time control**, **or target accuracy** under certain battlefield conditions.

### The Bigger Picture: What's Next for TB2?

Despite recent criticism, the Bayraktar TB2 remains a key player in low-intensity conflicts and counterinsurgency operations. However, as battlefield technology evolves, drones like the TB2 will need:

- Enhanced electronic counter-countermeasures (ECCM)
- Improved AI-driven autonomy
- Encrypted communications for high-threat zones

Turkey has already begun work on **next-gen UAVs**, like the **Bayraktar Akıncı**, which boasts **higher payload capacity**, **satellite communications**, and **more advanced avionics**, signaling the **future direction of drone warfare**.

### **Conclusion: A Powerful Yet Imperfect War Machine**

The **Bayraktar TB2** stands as a **revolutionary step** in democratizing drone warfare. While its **recent failure** in Pakistan's operation highlights potential shortcomings in **high-intensity warfare**, its success across multiple theaters proves it remains a **valuable asset** for modern militaries — especially in **budget-sensitive** and **asymmetric conflict zones**.

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To the Point Weekly Current Affairs 02 to 08 June 2025

**RBI's New Gold Loan Guidelines: Ensuring Transparency While Safeguarding Credit Access** 

**Context:** In a significant move towards reforming the gold loan ecosystem, the **Reserve Bank of India (RBI)** released **draft guidelines on April 9, 2025**, aimed at tightening regulations on loans backed by gold collateral. These proposals are designed to **standardise lending practices**, enhance **transparency**, and **safeguard the interests of borrowers**, especially in rural and semi-urban regions.



## Why RBI Is Reforming Gold Loan Rules:

The reforms come amid a **sharp surge in gold-backed lending**, especially by commercial banks. During **FY 2023–24**, several banks reported that their gold loan portfolios had **more than doubled**, driven by a rise in gold prices and growing demand for quick, collateral-based credit. However, this rapid growth raised concerns around **inconsistent lending practices**, **risk exposure**, and **lack of uniform valuation methods**.

The **Tamil Nadu government**, recognising the critical role of gold loans in the rural economy, particularly in South India, raised alarms about the socio-economic consequences of unregulated or over-regulated lending. In response, the **Union Finance Ministry** assured that the proposed guidelines will be implemented **gradually**, with the effective date set for **January 1**, 2026, to allow a smooth transition.

## Key Changes Proposed in the Draft Guidelines:

Here are the most significant proposals in the RBI's draft directions:

- Loan-to-Value (LTV) Ratio: The maximum LTV remains capped at 75%. However, for bullet repayment loans (where the borrower repays principal and interest at the end), the accrued interest will now be included in the LTV calculation, effectively reducing the actual loan disbursed.
- **Ownership Verification**: Borrowers must now **submit valid proof of ownership** of the gold being pledged, to **curb fraudulent activities** and **third-party pledging**.
- Valuation Standardisation: Gold will be valued uniformly at 22-carat purity, regardless of actual carat value, and standard assessment protocols for purity and weight must be followed by all lenders.
- Loan Renewals and Top-ups: These will be permitted only if the original loan is classified as standard and remains within the 75% LTV limit.
- **Concurrent Loans Restriction**: Borrowers will be barred from availing **multiple loans using the same gold collateral**, especially if the loans serve different purposes (e.g., consumption vs. business).
- **Return of Collateral**: If a lender fails to **return pledged gold within 7 working days** after repayment, they must **compensate the borrower 5,000 per day** of delay.

## **Impact on Borrowers and Financial Institutions:**

While the guidelines aim to bring **discipline and consumer protection**, they could have **both positive and negative impacts**:

- **Tighter Liquidity for Small Borrowers**: Since interest is included in LTV calculations, borrowers may receive **smaller disbursals** or may need to **pledge more gold** to access the same amount of funds.
- **Reduced Flexibility**: Renewing or topping up loans now requires **full repayment of earlier dues**, which might be difficult for borrowers facing **cash flow challenges**.

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- **Operational Challenges for NBFCs**: Smaller **Non-Banking Financial Companies** (NBFCs), especially those catering to rural areas, may face **increased compliance costs** and administrative burdens.
- **Possible Rise in Lending Costs**: Lenders might pass on the increased compliance and risk mitigation costs to borrowers, potentially leading to **higher interest rates or service charges**.

# Market Disruption or Necessary Discipline?

Critics argue that a **uniform framework** may not reflect the **diverse financial realities** of India, particularly in **agrarian or low-income regions** where gold loans are often the **only source of formal credit**.

**Experts suggest** a more flexible approach:

- Differentiated norms for micro-loans and small-ticket borrowers,
- **Stricter oversight** only for **high-value or commercial loans**.

Such calibrated regulation can help avoid **financial exclusion** while still addressing **systemic risks**.

# The Role of Gold Price Volatility:

One key driver behind the RBI's decision is the **rising volatility in global gold prices**, which has led to:

- Inflated loan values, potentially exposing lenders to greater default risk, and
- Re-pledging or overvaluation of gold assets.

The new guidelines aim to enforce **rigorous valuation standards**, mitigate risks tied to **price fluctuations**, and ensure a **stable and credible credit ecosystem**.

## Level Playing Field for Lenders

By applying the same rules across **banks and NBFCs**, the RBI intends to eliminate **regulatory arbitrage**, ensuring that all players operate under **a common compliance framework**. This move is expected to:

- Promote healthy competition,
- Enhance **consumer trust**, and ECCGETTIER WEINCATE TEECHES
- Build **resilience** in the sector.

# Additional Insights: The Gold Loan Landscape in India

- India holds **over 25,000 tonnes of household gold**, the **largest private gold holding** in the world.
- The Indian gold loan market is expected to cross **26 lakh crore by FY 2027**, growing at a **CAGR of 15%**, driven by **digitisation** and **financial inclusion efforts**.
- **Rural borrowers** often use gold loans to **fund agricultural inputs**, **manage emergencies**, or **meet educational expenses**, making them a **vital socio-economic tool**.

## **Conclusion: Striking the Right Balance**

The RBI's proposed gold loan guidelines represent a **critical balancing act**—ensuring **financial discipline** and **transparency** without cutting off access to credit for **vulnerable populations**. With the **January 2026 implementation timeline**, the regulator has created space for **dialogue**, **adaptation**, **and fine-tuning**.











### PM Modi Celebrates Ahilyabai Holkar's 300th Birth Anniversary

**Context:** On **May 31, 2025**, the nation celebrated the **300th birth anniversary of Devi Ahilyabai Holkar**, one of India's most iconic and visionary female rulers. **Prime Minister Narendra Modi**, addressing the **Mahila Sashaktikaran Mahasammelan in Bhopal**, honoured her extraordinary legacy and underscored her relevance in the vision of a **New India powered by Nari Shakti**.



As part of the celebrations, PM Modi unveiled a commemorative postage

**stamp** and launched a **300 coin** featuring the portrait of Ahilyabai Holkar. He also conferred the **National Devi Ahilyabai Award** to a distinguished woman artist for excellence in **tribal, folk, and traditional art forms**.

### Ahilyabai Holkar: The Warrior Queen Who Redefined Indian Leadership

### A Progressive Childhood in a Conservative Era:

Born on **May 31, 1725**, in **Chondi village of Maharashtra's Ahmednagar district**, Ahilyabai was the daughter of **Mankoji Shinde**, a village head who ensured she received an education—an extraordinary opportunity for a girl in the 18th century.

She was married to **Khande Rao Holkar**, son of **Malhar Rao Holkar**, who would later play a crucial role in shaping her destiny.

### From Tragedy to Power:

After the deaths of her husband, father-in-law, and only son, Ahilyabai boldly petitioned the Peshwa in 1765 for the right to govern the Malwa kingdom. Her leadership was backed by her army and supported by the people—a rare feat for a woman in medieval India.

# A Reign of Justice, Peace & Prosperity:

• Her rule (1765–1795) was celebrated for its **peaceful governance**, **prosperity**, and **infrastructure development**. While Central India was torn by conflict, Malwa thrived under her administration. Jawaharlal Nehru praised her as one of India's finest rulers, who governed "with the wisdom of a sage and the courage of a warrior."

### Patron of Culture, Faith, and Infrastructure:

• Ahilyabai transformed **Maheshwar** into a **cultural epicentre**, encouraging the arts, literature, music, and textile craftsmanship—including the world-renowned **Maheshwari sarees**. She funded the **restoration and construction** of hundreds of temples across India, including the iconic **Kashi Vishwanath Temple in 1780**.

Her legacy includes the building of **dharmashalas** (**rest houses**), **ghats**, **and water reservoirs** at major pilgrimage sites, reflecting her **holistic vision of public service**.

PM Modi's Address: Honouring a Timeless Legacy, Shaping a Modern Vision

### **Bridging the Past and the Present:**

PM Modi used the occasion to present **Ahilyabai's legacy as a foundation for India's modern development** narrative, especially in the context of **women empowerment**. He emphasized that **women-led progress** is key to national strength, innovation, and social justice.

### Pillars of Modern Nari Shakti: Highlights from the PM's Speech

**Champion of Social Reforms:** 







- Ahilyabai **pioneered widow remarriage**, promoted **property rights for women**, and **raised the legal age of marriage**—**centuries ahead of her time**.
- Established women's safety patrols and even a women's division in the Malwa army.

# Women-Led Development in Modern India:

- **Over 4 crore homes** built under government schemes are **registered in women's names**, promoting financial security.
- Schemes like **Ujjwala Yojana, Har Ghar Jal, and Ayushman Bharat** have significantly improved **healthcare, sanitation, and dignity** for rural women.
- Mudra Yojana and Self Help Groups (SHGs) have enabled millions of women to become microentrepreneurs.

# **Economic Empowerment Through Innovation:**

- Initiatives like **Drone Didi** are placing women at the heart of **agri-tech innovation**.
- Women now lead 45% of Indian startups, highlighting their growing role in entrepreneurship.
- The PM lauded women scientists in the **Chandrayaan-3 mission**, showcasing India's rising female presence in STEM.

# Political and Defence Leadership:

- India now boasts women leaders in top ministerial roles, including Finance and Defence.
- The historic Nari Shakti Vandan Adhiniyam has ensured 33% reservation for women in Parliament and State Assemblies.
- The current Lok Sabha has **75 women MPs**, a record number.

# **Operation Sindoor: Valor Beyond Borders**

- PM Modi unveiled details of Operation Sindoor, described as India's largest and most successful antiterror mission, where women personnel played crucial roles in the BSF and armed forces.
- Women now make up nearly 50% of NCC, and girls are being admitted to Sainik Schools.
- The **first batch of women cadets has graduated from the NDA**, marking a historic milestone in defence equality.

# Extra Insight: Ahilyabai's National Impact

- She financed temples and civic projects not just in Malwa, but across Ujjain, Nashik, Varanasi, Dwarka, Rameswaram, and Ayodhya, emphasizing pan-Indian unity and faith.
- Her administrative model of **decentralised governance and accountability** is still studied in civil service training modules today.

# Conclusion: Ahilyabai Holkar — The Eternal Flame of Women Empowerment

**Devi Ahilyabai Holkar's life and legacy** continue to inspire generations, not just as a ruler but as a **symbol of courage, vision, and compassion**. Her leadership was not confined by gender or geography—it was rooted in **public service, justice, and nation-building**.

By celebrating her 300th anniversary, **Prime Minister Narendra Modi** not only paid tribute to a historic figure but also used her example to **energise India's path toward inclusive development**, with **Nari Shakti** at the core of every national mission.





# Weekly Current Affairs 02 to 08 June To the Point



# Landslides Claim Lives in Northeast and Karnataka

Context: Recent landslides in parts of Northeast India and Karnataka have led to tragic loss of lives and widespread disruption. Triggered primarily by intense rainfall, these incidents have once again highlighted India's growing vulnerability to land-related disasters, especially in hilly and ecologically sensitive regions.

### What is a Landslide?

A landslide is a form of mass movement where soil, rocks, and debris move down

a slope under the force of gravity. They can vary in scale and speed—from slow creeping earthflows to sudden, massive rockfalls.

# Landslides are broadly classified based on:

- **Type of movement**: slides, flows, topples, falls, or lateral spreads.
- **Type of material**: rock, debris, or earth.

# Causes of Landslides: Nature and Human Actions

# **Natural Triggers:**

- Heavy Rainfall and Flooding
- Earthquakes and volcanic activity
- Undercutting of slopes by rivers or wave action
- Weathering and soil saturation due to groundwater buildup

## Human-Induced Factors:

- **Deforestation** and unregulated **agriculture**
- Slope cutting and illegal construction
- Road building, mining, and tunneling
- Vibrations from **heavy machinery** or traffic

# India's Landslide Hotspots: A Nation at Risk

According to the Landslide Atlas of India by ISRO, India is among the top four landslide-prone countries in the world.

- Nearly 12.6% of India's geographical area—0.42 million sq. km—is landslide-prone (excluding snowcovered areas).
- **Northwest Himalayas** contribute the most to landslide occurrences (66.5%), followed by:
  - Northeast Himalayas 18.8%
  - Western Ghats 14.7%

States like Uttarakhand, Himachal Pradesh, Sikkim, Arunachal Pradesh, and Kerala face frequent threats due to fragile terrain and heavy monsoons.

## **Government Strategies to Reduce Landslide Risks:**

National Landslide Risk Management Strategy (2019):

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### A comprehensive approach that focuses on:

- Hazard zonation mapping
- Real-time monitoring

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- Early warning systems
- Capacity building for local bodies

# Landslide Risk Mitigation Scheme (LRMS) - by NDMA:

- Offers financial and technical support for site-specific mitigation projects •
- Focuses on stabilisation of vulnerable slopes, construction of retaining walls, and drainage systems

# National Landslide Susceptibility Mapping (NLSM):

- Aims to build a **dynamic geodatabase** for India
- Helps in zoning landslide-prone areas, guiding urban planning and disaster preparedness

# Way Forward: Building Resilience Against Landslides

- 1. **Afforestation** and **eco-sensitive infrastructure** in hilly regions
- 2. Strict regulation of construction and mining in vulnerable zones
- 3. Community awareness programs and disaster drills
- 4. Investment in AI-based early warning systems and remote sensing technologies
- 5. Integration of landslide preparedness into school curriculum and Panchayati Raj governance models

# Did You Know?

- India witnesses over 20,000 landslide events every year, many of which go unreported.
- The **2013 Kedarnath tragedy** and the **2023 Sikkim floods** were both aggravated by landslides. ٠
- NASA, ISRO, and World Bank have collaborated to develop Landslide Hazard Forecasting Tools for South Asia.

## **Conclusion: A Call for Caution and Preparedness**

The recent landslides in the Northeast and Karnataka serve as a grim reminder of the growing environmental challenges facing India. With climate change increasing the frequency of extreme weather events, there is an urgent need to adopt sustainable development, robust risk assessment, and communitydriven resilience planning.

Proactive governance, technological innovation, and public participation hold the key to saving lives and securing fragile landscapes.

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