# UPSC Daily Current Affairs| Prelim Bits 29-05-2025

## Yashoda AI: Your AI SAKHI'

### Prelims: Current events of national and international importance | Science and Technology

### Why in News?

*The launch of 'Yashoda AI: Your AI SAKHI' held at the Mahatma Jyotiba Phule Rohilkhand University, Bareilly recently.*

- **Aim** - To enhance women's literacy in artificial intelligence and digital awareness.
- **Spearheaded by** - National Commission for Women (NCW) in collaboration with Future Shift Labs (FSL).
- **Targeted Beneficiaries** - Especially from rural and semi-urban communities, with essential skills in Artificial Intelligence, Cybersecurity, and Digital Safety.
- The program aims to go beyond traditional learning by hosting in-depth discussions on critical issues such as AI-driven crimes, digital privacy, and practical safety strategies.
- Actively engaging students, educators, and women from the police force, Yashoda AI Abhiyan wants to experiment in community-driven digital education, ensuring that women are participants and leaders in shaping India's tech-savvy future.
- The programme aligns with India's vision of a Viksit Bharat, promoting technology and inclusion.

**Reference**

The Hindu | Yashoda AI

## 'Know Your DIGIPIN' and 'Know Your PIN Code' Web Portals

### Prelims: Current events of national and international importance | Governance

### Why in News?

*Department of Posts, Ministry of Communications, recently launched two transformative digital platforms namely, 'Know Your DIGIPIN' and 'Know Your PIN Code'.*

- **DIGIPIN (Digital Postal Index Number)** – It is an open-source, interoperable, geo-coded, grid-based digital address system.
- **Developed by -** Department of Posts in collaboration with IIT Hyderabad and NRSC, ISRO.
- **Vision** - To offer Address-as-a-Service (AaaS), an array of services associated with

address data management to support secure and efficient interactions between users, government entities, and private sector organisations.
- The '**Know Your DIGIPIN'** portal enables users to
    - Retrieve their DIGIPIN based on precise geolocation.
    - Input latitude and longitude coordinates to fetch corresponding DIGIPINs and vice versa.
    - This initiative simplifies location mapping, enhances logistics and emergency response, and ensures last-mile delivery, especially in rural and underserved areas.
- It is now available to all Ministries, State Governments, institutions for integration into their workflows, and users for their own use.
- DIGIPIN will enhance location accuracy across multiple sectors by providing precise geographic coordinates, ensuring accurate service delivery and reducing emergency response times.
- A complete repository of the DIGIPIN technical documentation and source code has been made available on GitHub, promoting open collaboration and nationwide adoption.
- **Know Your PIN Code Web Application -** The six-digit PIN Code system, introduced in 1972.
- The post department undertook a national geofencing exercise across all postal jurisdictions to geo-reference all the pin code boundaries of the country.
- **Features**
    - Identify the correct PIN Code based on the location.
    - Submit feedback on PIN Code accuracy for continuous refinement of PIN Code dataset.
    - The geo-fenced PIN Code boundaries dataset has also been uploaded on Open Government Data Platform under the title "All India PIN Code Boundary geo-json".

**Reference**

PIB | 'Know Your DIGIPIN' and 'Know Your PIN Code'

## Electric Hansa (E-Hansa)

### Prelims: Current events of national and international importance | Defence

### Why in News?

*Science and Technology Minister recently said that India has initiated the process to build two-seater electric trainer aircraft.*

- It will be an indigenously developed next-generation two-seater electric trainer aircraft.
- **Agency** - CSIR - National Aerospace Laboratories (NAL).
- It is part of the larger HANSA-3 (NG) trainer aircraft program, which is designed to be

a cost-effective and indigenous option for pilot training in India.
- It is expected to cost significantly less than imported alternatives, possibly around Rs 2 crore.
- It is a key step towards India's green aviation goals and use of green or clean energy fuel in running our aircrafts.

## HANSA-3 (NG) Trainer Aircraft

- It is an indigenous next-generation, two-seater, ab-initio trainer aircraft developed for pilot training.
- **Designed and developed by** - CSIR-National Aerospace Laboratories (NAL) in Bengaluru.
- **Aim** - To offer a budget-friendly alternative to foreign trainer aircraft while facilitating the training of pilots for both Private Pilot License (PPL) and Commercial Pilot License (CPL).
- This initiative seeks to enhance India's aviation sector, aligning with the increasing demand for qualified pilots in the industry.
- **Key Features -** Advanced Glass Cockpit for superior digital display and enhanced situational awareness, complemented by a Rotax 912 iSc3 Sport Engine that offers fuel efficiency and digital control.
- Designed with a Bubble Canopy for panoramic visibility and increased pilot comfort, along with lightweight composite airframe and electrically operated flaps.
- Priced at ₹2 crore, this model is approximately 50% more affordable than its imported counterparts.

### References


1. PIB | Electric Hansa (E-Hansa)
2. Business Standard | Electric Hansa (E-Hansa)


## Kumbakonam Vetrilai

### Prelims: Current events of national and international importance

### Why in News?

*The Kumbakonam vetrilai, or betel leaf, has recently been granted a Geographical Indication (GI) tag.*

- **Announced in** - April 2025.
- It is a heart-shaped leaf, key to making paan, which is an important cultural and agricultural symbol.
- **Growing areas** - It is predominantly grown in Thanjavur's fertile Cauvery River basin, Tamil Nadu giving it a unique taste and aroma.
- **Colour** - Dark to light green.
- **Harvest process -** After 20–25 days of planting, *kolundhu vetrilai*, the first leaves emerge.

- The first-year harvest happens from the seventh to 12$^{th}$ month.
- It is called maaruvethalai, produces larger leaves with a better shelf life of six to seven days, and fetches higher prices in the market.
- Second and third-year yields – *kelavethalai* and *kattavethalai* – are smaller compared to the first year's yield.
- **Health Benefits** - It aids digestion and is rich in antioxidants. They are high in chavicol, an anti-inflammatory compound that fights oxidative stress, common in conditions like diabetes
- This is Thanjavur's first agricultural GI tag.

**Reference**

The Indian Express | Kumbakonam vetrilai

## Policy for Medium Enterprises

*Prelims: Public policy| Government Initiatives | Current events of national and international importance.*

### Why in news?

*Recently, NITI Aayog released a report titled "Designing a Policy for Medium Enterprises", to transform medium enterprises into future growth engines of India's economy.*

- **MSME Sector** – It plays a crucial role in manufacturing, exports, and employment.
  - It contributes **29% to India's GDP**.
  - It employs **over 60%** of the country's workforce.
  - It accounts for approximately **40% of India's total exports**.
- Recently central government has revised the definition of MSME to expand their reach and strengthen their contribution to India's economic growth.

| Rs. in Crore | Investment | | Turnover | |
|---|---|---|---|---|
| | Current | Revised | Current | Revised |
| Micro Enterprises | 1 | 2.5 | 5 | 10 |
| Small Enterprises | 10 | 25 | 50 | 100 |
| Medium Enterprises | 50 | 125 | 250 | 500 |

- **Distribution of MSME**
  - **97%** are micro enterprises.
  - **2.7%** are small enterprises.
  - Only **0.3%** are medium enterprises.
- Among these medium enterprises, are very small in number yet they show

**disproportionately high export contribution**.

- **Key Challenges for Medium Enterprises**
  - Limited access to tailored financial products.
  - Low adoption of advanced technologies.
  - Inadequate support for Research & Development (R&D).
  - Absence of sectoral testing and certification facilities.
  - Mismatch between training programmes and enterprise needs.
- **Medium Enterprises** are vital to make **India as a manufacturing hub** and to overcome these challenges Niti Ayog made these recommended to form a separate policy for medium enterprises.

## Key Interventions Recommended

- **Tailored financial solutions –** Launch of a **working capital financing scheme** linked to turnover with a provision of a **₹5 crore credit card facility** at market rates.
- It also recommends faster **fund disbursal via retail banks**, under Ministry of MSME oversight.
- **India SME 4.0 Competence Centers –** Upgrading Technology Centers into **India SME 4.0 Competence Centers** for the promotion of sector-specific, regionally customized Industry 4.0 solutions.
- **Skill Development** – Integration of **medium enterprise-specific modules** into existing ESDP (Entrepreneurship and Skill Development Programmes).
- **Research & development (R&D) support –** Creation of a **dedicated R&D cell** in the Ministry of MSME.
- It recommends the use of **Self-Reliant India Fund** for **cluster-based national projects**.
- **Cluster-based testing infrastructure –** It recommends to setup **sector-specific testing and certification facilities** to improve **product quality and regulatory compliance**.
- **Centralized digital portal –** Launch of a **dedicated sub-portal** on the Udyam platform with **compliance assistance**, and **AI-powered navigation** for enterprises.

**Reference**

PIB| Designing a Policy for Medium Enterprises

**One Liners 29-05-2025**

**History, Art and Culture**

## Artists Meet President Murmu

Artists specializing in Madhubani and Gond art recently met President Droupadi Murmu under the Artists-in-Residence Programme – Kala Utsav at Rashtrapati Bhavan.

• **Madhubani Art -** Originating from Bihar's Mithila region, is a folk-art form traditionally created by women on walls and floors during auspicious occasions. It's now also found on cloth, canvas, and paper.

• **Key Features of Art -** This art uses natural materials like plant-based pigments and bamboo pens, featuring bold black outlines filled with vibrant colors.

• **Themes** - Include Hindu deities, village life, festivals, and nature, symbolizing female creativity.

• **Gond Art -** Practiced by the Pardhan Gond tribes of MP, Gond art is a tribal art form rooted in oral storytelling and ritualistic practices, initially drawn on home walls.

• **Gond Art Key Features -** Gond art depicts mythical narratives and village folklore, filling motifs with fine dots and lines to create visual rhythm. It showcases a harmonious connection to nature and utilizes bright, bold colors.

• **Global Recognition -** Gond art has gained international popularity through works such as "The Night Life of Trees" by Tara Books, showcasing its unique style and rich storytelling.

## PM Visits Karni Mata Temple

The Prime Minister recently visited the Karni Mata temple in Deshnok, a small town near Bikaner, Rajasthan.

• **Karni Mata -** This Hindu temple is dedicated to Karni Mata, a 14th-century Hindu warrior sage revered as an incarnation of Goddess Durga. She even laid foundation stones for Mehrangarh and Bikaner Forts.

• **Temple of Rats** - The Deshnok temple is the most recognized of her temples, famously housing approximately 25,000 revered rats, called kabbas. White rats are especially sacred, believed to be incarnations of Karni Mata and her sons.

• **Architectural Marvel** - The current temple, built by Maharaja Ganga Singh in the early 20th century, showcases a typical Rajputana architectural style with some Mughal influences, including arched doorways.

• **Temple Features** - The facade is largely marble, while the main temple doors are solid silver.

• **Location and Fame** - Located in Rajasthan, the Karni Mata Temple in Deshnok is most famous for its revered rats and primarily reflects Rajputana architecture with Mughal influences.

# Geography

## South African Land Uplift Detected

A study in the *Journal of Geophysical Research: Solid Earth* reported that land in South Africa has been rising by 2 mm per year between 2012 and 2020.

• **Land Uplift -** This phenomenon refers to a gradual rise of land observed in parts of South Africa, primarily due to reduced surface and groundwater pressure.

• **Reason for Uplift -** Is attributed to an elastic rebound effect where the removal of surface water (due to drought or overuse) lessens the weight on the Earth's crust, causing it to rise. This is confirmed by GNSS and GRACE satellite data.

• **Key Features and Impact -** The uplift rate is approximately **2 mm/year**, totaling nearly 6 mm from 2012-2020. Severe droughts in **Cape Town** showed a clear correlation between water loss and land uplift.

• **Measurement Tools –** Utilized Global Navigation Satellite System (GNSS), hydrological models, and gravity satellite data (GRACE).

• **Uplift vs. Subsidence -** Unlike subsidence (collapse from groundwater over-extraction), uplift is an elastic rebound from surface load loss, while subsidence is a poro-elastic effect.

• **South Africa -** The southernmost African nation, is bordered by Namibia, Botswana, Zimbabwe, Mozambique, and Eswatini, enclosing Lesotho. It features the Great Escarpment, Highveld Plateau, and major rivers like the Orange and Limpopo.

## Kumbakonam Vetrilai Gets GI Tag

Kumbakonam Vetrilai, or betel leaf, has recently been granted a Geographical Indication (GI) tag by the Government of India.

• **Unique Characteristics** - Predominantly grown in Thanjavur's fertile Cauvery river basin, this betel leaf boasts a unique taste and aroma. Its leaves are dark to light green, oblong, heart-shaped, and possess a pungent taste.

• **Cultivated** - In Kumbakonam and neighboring villages of Ayyampettai, Swamimalai, and Rajagiri in Tamil Nadu.

• **Cultural Significance** – A staple in South Asian households, it's central to paan, a popular post-meal chew. The Kumbakonam betel leaf is also exported.

• **Harvesting Cycle** - The first leaves, kolunthu vetrilai, emerge after 20–25 days. The first-year harvest, maaruvethalai, yields larger leaves with a 6-7 day shelf life and fetches higher prices. Subsequent yields (kelavethalai and kattavethalai) are smaller.

• **Why Kumbakonam?** Kumbakonam's betel leaf's uniqueness stems from the Cauvery River banks' organically rich soil. Major betel leaf growing countries include Sri Lanka, India, Thailand, and Bangladesh.

## Kilauea Volcano Erupts

Recently, the Kilauea volcano on Hawaii's Big Island experienced an eruption with lava fountains soaring over 1,000 feet.

• **About Kilauea** - Kilauea is one of the world's most active volcanoes, a shield-type volcano situated in southeastern Hawaii. It stands at 4,190 feet (1,227 meters) above sea level.

• **Halemaumau Lava Lake** - Its summit caldera contains the Halemaumau lava lake, believed to be the home of the Hawaiian volcano goddess, Pele. Kilauea's slopes merge with those of the nearby Mauna Loa.

• **Continuous Activity** - Kilauea has been continuously erupting since 1983. Its frequent eruptions are typically non-explosive and confined within Halemaʻumaʻu.

• **Shield Volcano** - Are Earth's largest and are almost exclusively basaltic, leading to their broad, gently sloping form. Eruptions are usually low-explosivity fountaining, building up over vast periods.

• **Location** - Kilauea is located on the island of Hawaii, USA, and remains highly active.

## Polity & Governance

### Rajya Sabha (RS) Biennial Elections

The Election Commission has announced the schedule for **biennial elections** to eight Rajya Sabha seats, including six from Tamil Nadu and two from Assam.

• **RS -** is India's Upper House, representing States and Union Territories. It's a permanent body, with periodic elections to fill retiring members' seats.

• **Membership -** With a maximum strength of 250 (currently 245), 233 members are elected, and 12 are nominated by the President for their expertise.

• **Term -** Each member serves a **6-year term**, with one-third retiring every two years.

• **Elections -** Are indirect, using proportional representation by single transferable vote. State MLAs and UT Electoral Colleges elect representatives. Bye-elections fill vacancies, with the new member serving the remainder of the term.

• **Qualifications (Article 84) -** To be eligible, a person must be an Indian citizen, at least 30 years old, take an oath of office, and meet other legal qualifications.

• **Disqualifications -** Include holding an office of profit, being of unsound mind or insolvent, not being an Indian citizen, or incurring disqualification under the 10$^{th}$ Schedule (anti-defection law).

## International Relations and Issues

### World Thyroid Day: May 25

Is observed annually on May 25, focusing on global awareness of thyroid disorders and their impact.

• **2025 Theme - Early Detection and Treatment**

• **Global Health Significance -** This international observance highlights challenges faced by thyroid patients, promoting research and preventive healthcare practices worldwide.

• **Widespread Impact -** With over 4.2 crore Indians affected and more than 100 crore people globally residing in iodine-deficient regions, the day draws crucial attention to thyroid health.

• Aims to - Raise awareness, promote screening, and educate the public on the importance of iodine, hormone balance, and routine testing.

• **Prevention Tips -** Maintaining a balanced diet rich in iodine, selenium, and iron, avoiding smoking and excess alcohol, managing stress, ensuring adequate sleep and vitamin D, and scheduling routine checkups are vital for prevention.

### United Nations General Assembly (UNGA) Declares World Football Day

UNGA has declared May 25 as World Football Day, a historic decision adopted unanimously on May 7, 2024.

• **Centenary Commemoration** - This declaration commemorates the centenary of football's global representation during the 1924 Paris Summer Olympics.

• **Libyan-Led Resolution** - Introduced by Libya's ambassador Taher El-Sonni and co-sponsored by over 160 UN member nations, the resolution acknowledges football's unifying power.

• **Significance of May 25** - May 25, 1924, marked the first time all world regions were represented in Olympic football at the Paris Summer Olympics. The 2024 observance coincides with Paris again hosting the Olympics.

• **Football Facts** - Modern football rules developed in the 19th century, with the FA formed in 1863. FIFA, founded in 1902, boasts 211 member countries, exceeding the UN.

• **Olympic Football** - Football debuted at the 1900 Paris Olympics. While men's Olympic football has age restrictions, women's football, introduced in 1996, has none.

## Economy

### Meeting on Dark Patterns

The Union Food and Consumer Affairs Minister will hold a high-level meeting with major e-commerce stakeholders to address concerns regarding dark patterns, a growing digital consumer rights issue.

• **Dark Patterns** - Are deceptive interface designs used in websites or apps to trick or manipulate users into making unintended decisions.

• **Key Features** - These patterns include False Urgency ("Only 1 seat left!"), Basket Sneaking (adding unwanted items), Confirm Shaming (guilt-tripping users), Forced Action, Subscription Traps, Interface Interference (hiding info), and Bait and Switch tactics.

• **Issues and Challenges** - Dark patterns lead to consumer deception, eroding trust and distorting the market. They pose challenges in identification and proof, causing financial losses and privacy breaches for users.

• **Consumer Harm** -These deceptive practices directly harm users by causing financial losses, privacy breaches, and buyer's remorse, undermining their digital experience.

## Environment

### Moringa: The "Miracle Tree"

PKM1 Moringa oleifera has recently had a significant global impact, particularly in African countries like Senegal, Rwanda, and Madagascar.

• **Known as** - The “tree of life,” this vital herbal plant originated in India and was introduced to Africa, Southeast Asia, and the Philippines centuries ago.

• **Type-** Moringa is indeed a leguminous evergreen tree.

• **Climatic Needs -** Thrives in tropical and subtropical regions, ideally between 25–35 °C. This deciduous tree prefers indirect sunlight, well-drained, slightly acidic to alkaline soil, and begins bearing fruit within 6-8 months.

• **Global Distribution -** Its indigenous origin is India, Arabia, and the East Indies, Moringa is now widely distributed across Asia, Africa, the Caribbean, Latin America, and the Pacific Islands.

• **Nutritional Benefits -** Every part of the Moringa tree offers high nutritional value. Its leaves are especially rich in minerals, vitamins, and phytochemicals, commonly used to combat malnutrition and enhance breast milk production in lactating mothers.

• **Indian Names** - In India, it's widely recognized as mungna, saijna, or shajna. Its scientific name is Moringa oleifera.

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