

France Considers Legalising Assisted Dying

Source: DTE

Why in News?

France, after recently adding <u>abortion</u> as a constitutional right, is now considering legalising a form of assisted dying called "aid in dying".

- The proposed bill will have strict conditions, allowing assisted dying for individuals with incurable illnesses expected to cause death in the short- or middle-term.
- The country already allows passive euthanasia.

What is Assisted Dying and Passive Euthanasia?

- Assisted Dying: Assisted dying involves individuals who are terminally ill seeking medical
 assistance to obtain lethal drugs, which they then administer themselves to end their own
 lives.
 - It typically occurs **when patients are facing unbearable suffering** due to a terminal illness and wish to have control over the timing and manner of their death.
 - The primary distinction of assisted dying is that individuals actively participate in the process of ending their lives with the aid of medical professionals.
- Passive Euthanasia: Passive euthanasia occurs when life-sustaining treatments are withheld or withdrawn, allowing the patient to die naturally.
 - This may involve decisions to stop medical interventions such as ventilators, feeding tubes, or medications that sustain life.
 - Passive euthanasia is often considered distinct from active euthanasia because it does not involve directly causing the patient's death but rather allows death to occur by natural means.
 - Active euthanasia involves deliberately using lethal substances or actions to end a person's life.
- Countries with Legalised Assisted Dying or/and Euthanasia:
 - Netherland, Luxembourg, Belgium, Spain allows both euthanasia and assisted suicide for anyone who faces "unbearable suffering" that has no chance of improvement.
 - Switzerland bans euthanasia but allows assisted dying in the presence of a doctor or physician.
 - The United States has different laws in different states. Euthanasia is allowed in some states like Washington, Oregon, and Montana.
 - · India allows for passive Euthanasia.
 - In <u>Aruna Ramachandra Shanbaug v. Union of India Case, 2011</u>, Supreme Court recognised passive euthanasia in this case (for Aruna Shanbaug, who was in vegetative state) by which it had permitted withdrawal of life-sustaining treatment from patients not in a position to make an informed decision.
 - In Common Cause V/s Union of India Case, 2018, the Supreme Court of India legalised passive euthanasia, citing the importance of a 'living will.'
 - The ruling allows mentally competent adults to refuse medical treatment or opt not to receive it, thus embracing a natural death, under specific circumstances.
 - The court emphasised that dignity in the dying process is integral to

the right to life guaranteed by Article 21 of the Constitution.

- In 2023, the Supreme Court revised rules for passive euthanasia to simplify and expedite the process.
 - SC eliminated the requirement for a judicial magistrate to validate a living will, stating that attestation by a notary or a gazetted officer is adequate.

The Vision

UPSC Civil Services Examination, Previous Year Question (PYQ)

Q.1 Right to Privacy is protected as an intrinsic part of Right to Life and Personal Liberty. Which of the following in the Constitution of India correctly and appropriately imply the above statement? (2018)

- (a) Article 14 and the provisions under the 42nd Amendment to the Constitution.
- (b) Article 17 and the Directive Principles of State Policy in Part IV.
- (c) Article 21 and the freedoms guaranteed in Part III.
- (d) Article 24 and the provisions under the 44th Amendment to the Constitution.

Ans: (c)

Empowering the Sikh Community

Source: PIB

In a move to empower the <u>Sikh community</u>, on the occasion of **Sikh New Year**, the Union Minister of Minority Affairs launched a comprehensive skill development, leadership, and entrepreneurship promotion program.

- The program is part of the "Sabka Sath, Sabka Vikas, Sabka Vishwas, Sabka Prayas" initiative under the Pradhan Mantri Virasat Ka Samvardhan (PM VIKAS) Scheme through the Delhi Sikh Gurdwara Management Committee (DSGMC), which is a Statutory Body established for the welfare of the Sikh community.
 - It targets 10,000 youth and women for modern skills training in employment-oriented
 job roles, promotes Sikh artisans, fosters women's leadership and entrepreneurship,
 and provides education for school dropouts.
 - The program aims to assist socio-economically disadvantaged groups within the Sikh community and promote communal and social harmony.
 - State-of-the-Art Gurmukhi Script learning centres will be established in Khalsa colleges under the University of Delhi for preserving and promoting the rich cultural heritage and traditions of the Sikh community.
 - The Gurmukhi script was developed from the **Śāradā script**, standardised and used by the second **Sikh guru**, **Guru Angad**.
 - The Śāradā script is part of the **Brahmic family of scripts.**
- The Ministry will provide infrastructure and ancillary services, including developing Studios/Smart Classrooms under the <u>PM Jan Vikas Karyakram</u>.

Read more: Welfare Schemes for the Minority Communities, Sikhism

GI Tag to Cuttack Rupa Tarakasi

Source: TH

The renowned **Cuttack Rupa Tarakasi (Silver Filigree)** has been granted the **Geographical Indication (GI) tag,** marking its distinct heritage and craftsmanship.

- Dating back to ancient Mesopotamia, where filigree adorned jewellery as early as 3500 BCE, its
 journey to Cuttack potentially via Persia and Indonesia speaks volumes about cultural exchange
 through maritime trade routes.
 - Filigree is ornamental work especially of fine wire of gold, silver, or copper applied chiefly to gold and silver surfaces.
- Alongside Cuttack Rupa Tarakasi, other crafts like Banglar muslin (West Bengal), Narasapur crochet lace (Andhra Pradesh), and Kutch rogan craft (Gujarat) have also earned GI status, emphasising the diversity and excellence of India's traditional crafts.
- A GI tag is a label used on products linked to a specific geographic area, ensuring only authorised users from that region can use the product's name.
 - It guards against imitation and lasts for **10 years** once registered.
 - The Department for Promotion of Industry and Internal Trade (DPIIT) manages GI
 registration in India under the <u>Geographical Indications of Goods Act, 1999</u>, in line
 with the <u>TRIPS agreement.</u>



Read more: Geographical Indication Tag

New Satellite-Based Toll Collection System

For Prelims: GAGAN, Global Positioning System, FASTag

For Mains: Significance of Satellite-Based Navigation Systems, Infrastructure

Source: TH

Why in News?

Recently, the Ministry of Road Transport and Highways of India announced in <u>Parliament</u> that the government intends to roll out a **new highway toll collection system** based on the **global navigation** satellite system (GNSS) before the <u>model code of conduct</u> for the 2024 election becomes effective.

What is the New Proposed Highway Tolling System?

Salient Features:

- The proposed highway tolling system utilises the GNSS, including the Indian satellite navigation system GAGAN (GPS Aided GEO Augmented Navigation) for accurate location tracking.
 - The GNSS is a term used to refer to any satellite-based navigation system, including the US' **Global Positioning System (GPS)**.
 - It uses a large constellation of satellites to provide more accurate location and navigation information to users globally as compared to the GPS alone.
- Implementation involves fitting vehicles with an **On-Board Unit (OBU)**, or tracking device, which communicates with **satellites to determine location.**
- Coordinates of national highways are logged using digital image processing, allowing software to calculate toll rates based on distance travelled.
 - Toll amounts are deducted from a digital wallet linked to the OBU, ensuring seamless and cashless transactions.
- Enforcement measures including gantries equipped with CCTV cameras along highways to monitor compliance and deter evasion tactics.
- The new system will likely coexist with the existing FASTag-based toll collection initially. A decision on mandating OBUs for all vehicles is yet to be made.

Benefits:

- Smoother Traffic Flow: Elimination of toll plazas is expected to significantly reduce traffic congestion, especially during peak hours.
- **Faster Commutes:** Frictionless toll collection should lead to quicker travel times and a more efficient highway network.
- Fairer Billing: The system aims to offer users the benefit of paying tolls only for the actual distance travelled, promoting a pay-as-you-use model.

Challenges:

- **Payment Recovery:** Recovering tolls from users with depleted digital wallets or those who tamper with the system remains a concern.
- Enforcement Infrastructure: Setting up a nationwide network of Automatic Number-Plate Recognition (ANPR) cameras for enforcement purposes requires significant infrastructure development.
- Privacy Concerns: Data security and user privacy need to be addressed effectively.

FASTag

- **FASTag** is a device that employs <u>Radio Frequency Identification (RFID)</u> technology for making toll payments directly while the vehicle is in motion.
- FASTag (RFID Tag) is affixed on the windscreen of the vehicle and enables a customer to make toll payments directly from the account which is linked to FASTag.
 - It is operated by the <u>National Highway Authority of India (NHAI)</u> under the supervision of the Ministry of Road Transport and Highways.

GAGAN

GPS Aided GEO Augmented Navigation (GAGAN) is an initiative by the Indian Government for

- Satellite-based Navigation Services in India.
- It aims to enhance the accuracy of global navigation satellite system (GNSS) receivers through reference signals.
- The <u>Airports Authority of India (AAI)</u> and the <u>Indian Space Research Organization (ISRO)</u>
 have collaborated to develop the GAGAN as a regional <u>Satellite Based Augmentation System</u>
 (SBAS).
- The GAGAN's goal is to provide a navigation system to assist aircraft in accurate landing over the Indian airspace and the adjoining area and applicable to safety-to-life civil operations. **GAGAN is interoperable with other international SBAS systems.**

UPSC Civil Services Examination, Previous Year Question (PYQ)

Prelims:

- Q.1 Which one of the following countries has its own Satellite Navigation System? (2023)
- (a) Australia
- (b) Canada
- (c) Israel
- (d) Japan

Ans: d

- Q.2 With reference to the Indian Regional Navigation Satellite System (IRNSS), consider the following statements: (2018)
 - 1. IRNSS has three satellites in geostationary and four satellites in geosynchronous orbits.
 - 2. IRNSS covers entire India and about 5500 sq. Km beyond its borders.
 - 3. India will have its own satellite navigation system with full global coverage by the middle of 2019.

Which of the statements given above is/are correct?

- (a) 1 only
- (b) 1 and 2 only
- (c) 2 and 3 only
- (d) None

Ans: (a)

Mains:

Q.1 Why is the Indian Regional Navigational Satellite System (IRNSS) needed? How does it help in navigation? **(2018)**

SEBI Warns Against Fraudulent Trading Platforms

Source: IE

The Securities and Exchange Board of India (SEBI) has issued a cautionary statement regarding deceptive

trading platforms falsely asserting ties with its registered Foreign Portfolio Investors (FPIs).

- Pretending as SEBI-registered FPIs, they entice individuals to download applications promising access to stock purchases, IPO subscriptions, and exclusive 'institutional account benefits.'
 - These platforms lure individuals through online trading courses, seminars, and mentorship programs, exploiting social media platforms like WhatsApp or Telegram.
- SEBI clarified that the FPI route is not accessible to resident Indians, with limited exceptions outlined in the <u>SEBI (Foreign Portfolio Investors) Regulations</u>, 2019.
 - Also, there is no provision for an Institutional Account.
- FPIs encompasses financial investments made by foreign individuals, corporations, and institutions in Indian financial assets like **stocks**, **bonds**, **and mutual funds**.
 - Unlike <u>Foreign Direct Investment (FDI)</u>, which involves long-term ownership of assets, FPI is primarily driven by the aim of achieving short-term gains and portfolio diversification.



Read more: Securities and Exchange Board of India (SEBI), Foreign Portfolio Investors

Comprehensive Framework for a Regulatory Sandbox

For Prelims: Reserve Bank of India (RBI), Regulatory Sandbox (RS), Digital Personal Data Protection Act. 2023, FinTech

For Mains: Significance of Regulatory Sandbox in assessment of risks of new financial innovations.

Source: BS

Why in News?

Recently, the **Reserve Bank of India (RBI)** revised the timeline for the completion of various stages of

- a Regulatory Sandbox (RS) to nine months from the previous seven months.
 - The updated framework for an RS also requires sandbox entities to ensure compliance with provisions of the <u>Digital Personal Data Protection Act</u>, 2023.

What is the Regulatory Sandbox (RS)?

Background:

- The Reserve Bank of India (RBI) set up an inter-regulatory Working Group in 2016 to look into and report on the granular aspects of <u>FinTech</u> and its implications so as to review the regulatory framework and respond to the dynamics of the rapidly evolving FinTech scenario.
- The report recommended introducing an appropriate framework for a **Regulatory Sandbox (RS)** within a well-defined space and duration where the financial sector regulator will provide the requisite regulatory guidance, to increase efficiency, manage risks and create new opportunities for consumers.

About:

- A Regulatory Sandbox (RS) refers to live testing of new products or services in a
 controlled regulatory environment for which regulators may or may not permit certain
 regulatory relaxations for the limited purpose of testing.
- The RS is an important tool that enables more **dynamic**, **evidence-based regulatory environments** which learn from and evolve with, emerging technologies.
- It enables the regulator, financial service providers and customers to conduct field tests to collect evidence on the benefits and risks of new financial innovations while monitoring and containing their risks.

Objectives:

- The objective of the RS is to foster responsible innovation in financial services, promote efficiency and bring benefit to consumers.
- It can provide a structured avenue for the regulator to engage with the ecosystem and to develop innovation-enabling or innovation-responsive regulations that facilitate delivery of relevant, low-cost financial products.

Target Applicants:

 Target Applicants for entry to the RS include fintechs, banks, and companies partnering with or providing support to financial services businesses, among others.

Adoption of Regulatory Sandboxes in India:

- Fintech Focus: The Reserve Bank of India (RBI) introduced the first regulatory sandbox program in 2019.
 - It facilitates live **testing of innovative financial products and services** in a controlled environment under RBI supervision.
- Thematic Cohorts: The RBI sandbox operates on a thematic cohort basis. Each cohort focuses
 on a specific area like retail payments, cross-border transactions, or MSME lending.
 - Key Design Aspects of RS:
 - RS cohorts: Based on thematic cohorts focussing on financial inclusion, payments and lending, digital KYC, etc.
 - Regulatory relaxations: RBI may grant some relaxations such as liquidity requirements, board composition, statutory restrictions etc.
 - Exclusion from RS: Indicative negative list includes credit registry, cryptocurrency, initial coin offerings etc.
- Telecom Sandbox: The government introduced a "Millennium Spectrum Regulatory Sandbox" initiative. This includes a Spectrum Regulatory Sandbox (SRS) and Wireless Test Zones (WiTe Zones).
 - These initiatives aim to simplify regulations for telecom R&D activities and explore new spectrum bands for technological advancements.

What are the Associated Benefits and Challenges Related to Regulatory Sandbox?

Benefits:

- Regulatory Insights: Regulators can obtain first-hand empirical evidence on the benefits and risks of emerging technologies and their implications, enabling them to take a considered view on potential regulatory changes.
- Enhanced Understanding for Financial Providers: Incumbent financial service
 providers might improve their understanding of how new financial technologies
 might work, potentially helping them to appropriately integrate such new technologies with
 their business plans.
- **Cost-Effective Viability Testing:** Users of an RS have the potential to test the product's viability without the need for a larger and more expensive roll-out.
- **Financial Inclusion Potential:** FinTechs provide solutions that can potentially further financial inclusion in a significant way.
- Thrust Areas for Innovation: Areas that can potentially get a thrust from the RS include microfinance, potentially innovative small savings, remittances, mobile banking, and other digital payments.

Challenges:

- Flexibility and Time Constraints: Innovators may face challenges with flexibility and time during the sandbox process, potentially impacting their ability to adapt and iterate quickly.
- Case-by-Case Authorizations: Securing customised authorizations and regulatory relaxations on an individual basis can be a lengthy process, often involving subjective assessments, which may result in delays in experimentation.
- Limitations on Legal Waivers: The RBI or its Regulatory Sandbox cannot offer legal exemptions, which might limit innovators looking to reduce legal risks while experimenting.
- Post-Sandbox Regulatory Approvals: Even after successful sandbox testing, experimenters may still require regulatory approvals before their product, services, or technology can be permitted for wider application, potentially prolonging the time to market.

Way Forward

- Work towards streamlining the sandbox process to minimise the time and administrative burden on innovators. This could involve simplifying application procedures and providing clearer guidelines for participation.
- Increase transparency in the case-by-case authorization process by providing clear criteria for decision-making and ensuring that judgments are made consistently and fairly.
- Provide comprehensive education and support for innovators participating in the sandbox, including guidance on regulatory requirements and potential legal issues.
- Collaborate with legal experts to develop frameworks for addressing legal issues that may arise during experimentation, such as consumer losses. This could involve implementing safequards to protect consumers while encouraging innovation.
- Streamline the process for obtaining regulatory approvals post-sandbox testing to ensure that successful experiments can quickly progress to wider application. This may involve establishing fast-track approval mechanisms for proven innovations.

UPSC Civil Services Examination, Previous Year Questions (PYQs)

Prelims:

- Q. With reference to India, consider the following: (2010)
 - 1. Nationalisation of Banks
 - 2. Formation of Regional Rural Banks

3. Adoption of village by Bank Branches

Which of the above can be considered as steps taken to achieve the "financial inclusion" in India?

(a) 1 and 2 only

(b) 2 and 3 only

(c) 3 only

(d) 1, 2 and 3

Ans: (d)

Lead Iodide Perovskites

Source: PIB

- A study led by <u>Bharat Ratna</u> Professor C.N.R. Rao explores atomic rearrangements in <u>lead</u> <u>iodide perovskites</u> during phase transitions caused by temperature and pressure changes.
 - Perovskite structure: perovskite refers to any material that has a crystal structure like the mineral perovskite. Ex: Lead Iodide Perovskites and calcium titanium Perovskites.
- Lead iodide perovskites exhibit excellent optoelectrical properties, making them promising
 materials for solar cells. However, their instability (decomposition in humid air) is a concern
 due to structural changes under varying conditions.
 - Despite instability issues, it has commercial potential due to their unique crystalline structures and optoelectronic properties.
 - Lead iodide perovskites's energy conversion efficiency can be higher than even that
 of commercial silicon-based solar cells
- Addressing instability could lead to more efficient renewable energy generation using lead iodide perovskites in solar cells, <u>LEDs</u>, <u>X-ray</u> shielding, and <u>Energy Storage Systems</u>.

Read More: Viability Gap Funding Scheme for Battery Energy Storage Systems

Internet in Remote Tribal Villages (VSAT)

Source: TH

Recently, The Ministry of Tribal Affairs plans to collaborate with the <u>Indian Space Research</u>

Organisation (ISRO) to deploy V-SAT (very small apperture terminal) stations on a pilot basis for approximately 80 tribal villages in Jharkhand, Madhya Pradesh, Odisha, and Maharashtra.

- The initiative aims to provide Internet services to geographically remote tribal villages that have been historically difficult to connect due to challenging terrain. It will facilitate **e-governance** and improve connectivity in remote areas.
- Apart from this, the Ministry also discussed proposals for partnerships with institutes such as <u>AIIMS</u>
 <u>Delhi, IIT Delhi, IIM Calcutta</u>, and <u>IISc Bengaluru</u>.
 - Partnerships with AIIMS Delhi include conducting advanced research on tribal health issues, particularly on <u>Sickle Cell Anaemia</u>.

Additionally, plans are in place to establish a training facility with the <u>Indian Institute of Science</u> in <u>Bengaluru</u> to offer courses on <u>semiconductors</u> to tribal students.

Read More: Indian Space Research Organisation (ISRO)

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