DAILY CURRENT AFFAIRS 05-02-2026

Mapping Perspective

1. **Fuego Volcano**

Prelims Perspective

2. **World Wetlands Day**
3. **SAKSHAM 2026**

Mains Perspective

4. **India–U.S. Trade Deal 2026 – Strategic Significance**
5. **Frozen Embryo Donation case**

Fuego Volcano

Syllabus: GS-1: Physical Geography – Volcanoes.

Context:

- **Volcán de Fuego**, one of **Central America's most persistently active volcanoes**, has **recently produced a powerful explosive eruption**.
- The eruption involved **ash plumes, pyroclastic activity, and lava flows**, reinforcing its status as a **high-risk volcano**.

About Fuego Volcano

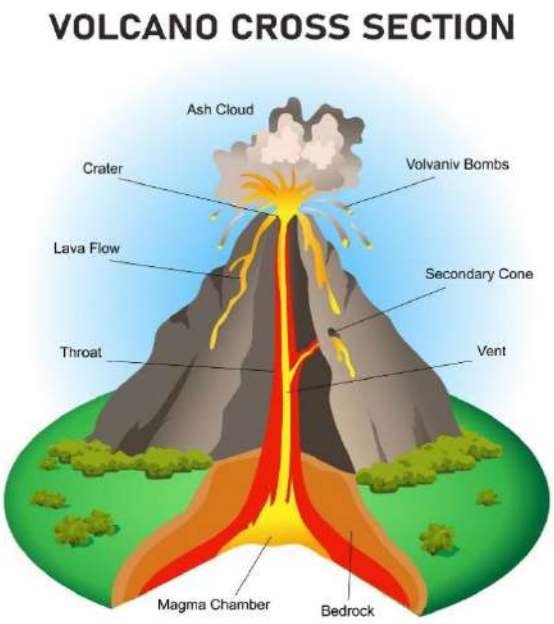
- **Meaning**: *Volcán de Fuego* means **"Volcano of Fire"** in Spanish.
- **Location**: Guatemala, overlooking the historic city of **Antigua Guatemala**.
- **Type**: **Basaltic stratovolcano** (composite volcano).
- **Age**: Relatively **young** volcano in geological terms.

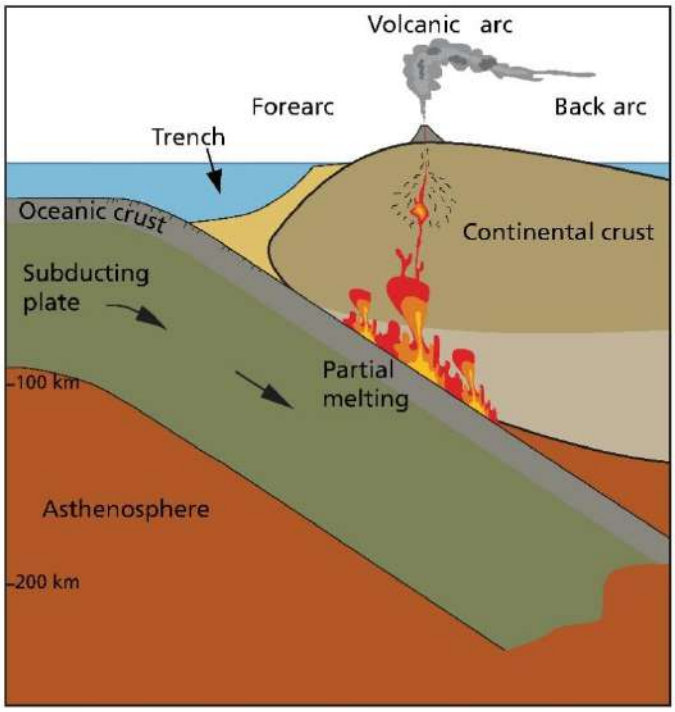
- **Elevation**:
  - **3,763 meters** (12,346 feet) above mean sea level.
- **Geographical Setting**:
  - Lies between **Acatenango** and **Agua** volcanoes.
  - Part of the **Central American Volcanic Arc**, extending from **Guatemala to Panama**.
- **Tectonic Context**:
  - Guatemala lies on the **Pacific Ring of Fire**, making it prone to **frequent earthquakes and volcanic eruptions**.

Eruptive History & Activity

- **Most active volcano in Central America** historically.
- **Eruptions since 1524**: More than **60 recorded eruptions**.
- **2018 Catastrophic Eruption**:
  - **194 deaths**
  - **234 people missing**
  - Massive **pyroclastic flows** overwhelmed nearby settlements.
- **Post-2018 Activity**:
  - Continues to erupt **several times a day**, though generally at **lower intensity**.
- **Typical Volcanic Hazards**:
  - Ashfall
  - Lava flows
  - Pyroclastic flows
  - Lahars (volcanic mudflows)

What is a Stratovolcano?





Key Characteristics

- Tall, **steep-sided**, **cone-shaped** volcanoes.
- Also known as **composite volcanoes**.
- **Found mainly at subduction zones**.

- Dominant volcano type along the **Pacific Ring of Fire**.

Composition & Eruptions

- Built from **alternating layers** of:
  - Lava flows
  - Pyroclastic materials
- Lava types:
  - Mostly **andesite and dacite**
  - **More viscous** than basalt → traps gases.
- Result:
  - **High gas pressure**
  - **Highly explosive eruptions**

Statistics & Structure

- Constitute **~60% of Earth's individual volcanoes**.
- Usually have:
  - A **small summit crater**
  - Crater may contain **water, ice**, or a **lava dome** during inactivity.

World Wetlands Day

Syllabus: Prelims Bits

Context:

- World Wetlands Day 2026 Theme:*"Wetlands and Traditional Knowledge: Celebrating Cultural Heritage"*

Core Focus:

- Explores **long-standing linkages** between:
  - Wetland ecosystems
  - Indigenous & local community practices
  - Traditional knowledge systems
  - Cultural heritage and livelihoods

Significance:

- Recognises the role of **indigenous peoples and local communities (IPLCs)** in:
  - Conservation
  - Sustainable management
  - Restoration of wetlands

About World Wetlands Day

Observance

- Celebrated **every year on 2 February**
- First celebrated in **1997**
- Declared a **United Nations International Day in 2022**

Historical Background

- Marks the anniversary of the **Ramsar Convention**
- Convention signed on **2 February 1971**
- Location: **Ramsar, Iran**

Ramsar Convention – Key Facts

- Official name:**Convention on Wetlands of International Importance**
- Oldest modern international environmental agreement
- Only global treaty focused exclusively on one ecosystem – wetlands
- 172 Contracting Parties
- 2500+ Ramsar Sites worldwide

SAKSHAM 2026

Syllabus: Prelims Bits

Context:

- **SAKSHAM 2026** has been recently inaugurated by the **oil industry** to enhance **public awareness on conservation of national energy resources**, especially **oil and gas**.

About SAKSHAM (Samrakshan Kshamatha Mahotsav)

- **Nature**:
  - **Annual national awareness campaign**
- **Initiated by**:
  - **Ministry of Petroleum and Natural Gas**, Government of India
- **Primary Objective**:
  - Promote **fuel conservation**
  - Encourage **sustainable energy practices**
  - Reduce dependence on **fossil fuels**
  - Support India's **energy transition** and **climate commitments**
- **Implementation**:
  - Organized by **Oil & Gas Public Sector Enterprises (PSUs)**
  - In collaboration with:
    - Local authorities
    - Educational institutions
    - Industries
    - Other key stakeholders
- **Broader Vision**:
  - Steering India towards a **greener, cleaner, and energy-efficient future**

SAKSHAM 2026 – Key Features

Duration

- Fortnight-long campaign
- 2 February – 16 February 2026

Theme (2026)

- **"Conserve Oil and Gas, Go Green"**
- *(Hindi tagline)*: **"Tel aur Gas Bachao, Harshit Urja Apnao"**

Theme Significance:

- Emphasises:
  - **Energy efficiency**
  - **Fuel conservation**
  - Shift towards **renewable and green energy**
  - Environmental sustainability

Major Activities under SAKSHAM 2026

- Public engagement programmes such as:
  - Debates & seminars
  - Workshops
  - Awareness campaigns
  - Wall paintings
  - Cyclothons& walkathons
- Focus on **mass participation and behavioural change**

Target Groups

- School children
- Youth
- LPG consumers
- Fleet operators
- Farmers
- Industry professionals

(Ensures inclusive outreach across social and economic sectors)

India–U.S. Trade Deal 2026 – Strategic Significance

Syllabus: GS-3: Indian Economy – Trade Agreements.

Context:

- India committed to **importing USD 100 billion annually** from the **United States** for **five years**.
- Deal accompanied by **significant tariff reductions by the U.S.**
- Objective: **stabilise bilateral trade** after tariff escalation in 2025.

Background: India–U.S. Trade Relations

- **India–U.S. trade** driven by:
  - Strategic convergence
  - Supply-chain diversification
  - Indo-Pacific geopolitics
- U.S. is **India's largest trading partner**:
  - Major Indian exports: **IT services, pharmaceuticals, engineering goods, textiles**
- **Persistent frictions**:
  - Tariffs, agriculture, digital trade, market access
- **August 2025**:
  - U.S. raised tariffs on Indian goods to **50%**, citing trade imbalance
  - Triggered renewed negotiations → Trade Deal 2026

Key Features of the India–U.S. Trade Deal

Large-Scale Import Commitment

- **USD 100 billion per year** for 5 years*(FY25 imports: USD 45.62 billion)*

Major import categories:

- Energy products: **oil, LNG, coal**
- **Aircraft & aircraft parts**
- High-end technology & capital goods
- **Precious metals**
- Nuclear-related equipment
- Select agricultural products

Tariff Reduction by the United States

- Tariffs on Indian goods reduced:
  - **From 50% → 18%**
- Benefits Indian exports:
  - Engineering goods
  - Textiles
  - Auto components
  - MSME-linked manufacturing

Protection of Sensitive Sectors (India)

India retained **policy red lines** on:

- Genetically Modified (GM) crops
- Dairy sector
- Poultry
- Maize, cereals, corn

Reflects:

- Farmer protection
- Food security concerns
- Political economy of agriculture

Agriculture & Market Access Framework

- **Quota-based / limited access** for:

- Cotton, pulses, chestnuts, onions

- Market access allowed for:
  - Apples
  - Wine, spirits, beer*(Already permitted under EU & New Zealand trade arrangements)*

Government stance:

- No compromise on farmer welfare

Strategic & Economic Rationale

Addressing Trade Imbalances

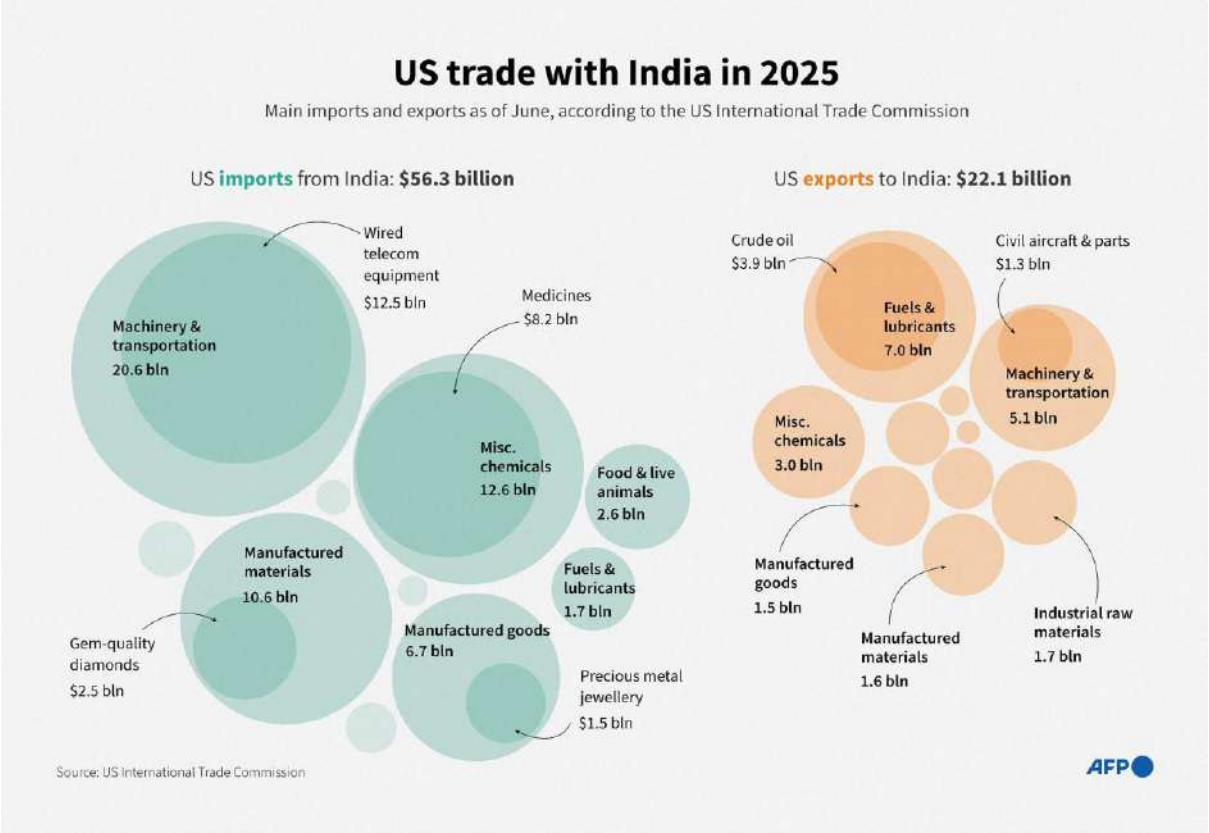
- Helps reduce **U.S. goods trade deficit**, especially in agriculture
- For India:
  - Eases tariff pressure
  - Ensures continued access to U.S. market

Energy Security & Diversification

- Large U.S. energy imports:
  - Reduce dependence on West Asia & Russia
  - Improve **long-term energy supply stability**
- Aligns with India's **energy transition & security strategy**

Geopolitical Significance

- Strengthens **India–U.S. strategic partnership**
- Context:
  - China-centric supply chain decoupling
  - Weaponisation of trade & tariffs
- Trade used as **strategic diplomacy tool**



Concerns & Criticisms

Fiscal & Trade Deficit Risks

- Fixed import commitments:
  - May constrain policy flexibility
  - Risk widening **merchandise trade deficit**

Farmer & MSME Concerns

- Fear of:
  - Future pressure to open agriculture further
  - Cheaper U.S. farm surpluses affecting domestic prices

Absence of a Formal FTA

- Deal is **not a Free Trade Agreement**
- Gaps:
  - Weak dispute resolution
  - Long-term enforceability unclear

Way Forward

- **Close monitoring of implementation**
- Maintain **robust safeguard mechanisms**
- Parallel focus on:
  - Services exports (IT, finance, professional services)
  - Manufacturing competitiveness
  - Technology & innovation-led exports
- Structural reforms to enhance **productivity & resilience**

Frozen Embryo Donation case

Syllabus: GS-2: Laws and Policies & Judgement.

Context:

- The **Delhi High Court** has issued notice on a **PIL** challenging provisions of the **Assisted Reproductive Technology (Regulation) Act, 2021** and its Rules.
- **Core issue:** Whether the law can mandate destruction of viable frozen embryos instead of allowing their donation to infertile couples, even with informed consent of all parties.

What the Current Law Allows

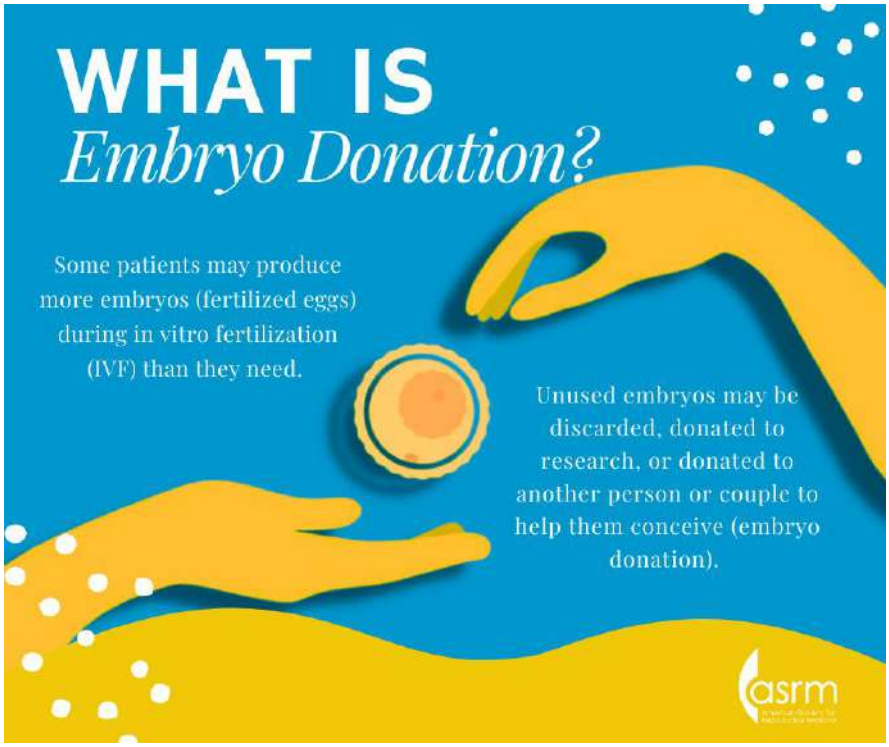
- **Altruistic donation of sperm and eggs** under regulated conditions.
- **Donor-assisted IVF**, including **double-donor IVF**:
  - Embryos created using **donor sperm + donor eggs**.
  - Child has **no genetic link** to commissioning parents.
  - Law explicitly recognises and permits **non-genetic parenthood**.

What the Law Prohibits

- **No donation of surplus frozen embryos** to another infertile couple for reproductive use.
- Unused embryos can only be:
  - Stored (up to **10 years**),
  - Donated for **research**, or
  - **Allowed to perish** after the storage period.

Why Surplus Frozen Embryos Exist

- IVF typically produces **multiple embryos** to increase success rates.
- Not all embryos are implanted.
- Couples may:
  - Achieve desired family size,
  - Face medical constraints,
  - Discontinue treatment.



How the Prohibition Operates (Legal Mechanism)

- **Embryos tied exclusively to commissioning couple**
  - Clinics can preserve embryos **only for original couple**.
- **Third-party transfer barred**
  - Embryo transfer permitted only for the couple's **own reproductive use**.
- **Mandatory end-point (Section 28(2))**
  - Maximum storage: **10 years**.
  - Post-10 years: embryos must be **destroyed or donated for research**.
- **Consent forms**

- Do not list embryo donation to another couple as an option → **de facto prohibition**.

Fresh vs Frozen Embryos: Core Contradiction

What Law Permits

- Transfer of **fresh embryos** created from donor sperm + donor eggs.
- Genetic non-linearity is legally accepted.

Scientific Reality

- **Frozen embryos**, once thawed:
  - Are **biologically identical** to fresh embryos.
  - Have **comparable IVF success rates**.

Legal Inconsistency

- Fresh donor embryos → **transfer allowed**
- Frozen surplus embryos → **transfer prohibited**
- Petition calls this a **legal and ethical double standard**.

Constitutional Challenge

Article 14 – Equality Before Law

- Arbitrary classification between:
  - Couples allowed to receive **fresh donor embryos**, and
  - Couples barred from receiving **frozen donor embryos**.
- No **intelligible differentia** or **rational nexus** with legislative objective.

Article 21 – Right to Life & Personal Liberty

- Reproductive choice is part of:
  - Dignity
  - Privacy
  - Decisional autonomy
- Blanket ban on embryo donation intrudes into reproductive freedom.

Compulsory Destruction: Ethical Concern

- Law mandates embryos to be "**allowed to perish**" after 10 years.
- Petition calls this:
  - **Ethically irrational**

- **Disproportionate**

- Especially problematic when:
  - Viable embryos exist,
  - Willing recipient couples are available,
  - Informed consent is present.

Why the Case Matters

Public Health Dimension

- **27–30 million infertile couples** in India.
- Infertility recognised as a **major reproductive health issue**.

Limitations of Existing Options

- **IVF**:
  - Expensive,
  - Often requires multiple cycles.
- **Adoption**:
  - Long waiting periods,
  - Procedural and legal hurdles.

Embryo Donation as a Middle Path

- Allows:
  - Pregnancy and childbirth,
  - Without genetic linkage,
  - Within a regulated medical framework.

Equity Concerns

- Wealthier couples can access embryo donation **abroad**.
- Poorer couples cannot → **reproductive choice becomes class-based**.

Ethical and Governance Dimensions

- **Ethics**: Balancing sanctity of life, autonomy, and societal interest.
- **Governance**: Need for laws to evolve with medical science.
- **Regulatory gap**: Absence of safeguards ≠ justification for total prohibition.

Way Forward (Suggestions)

- Introduce **regulated embryo donation** framework:
  - Strict consent protocols,
  - Anonymity and traceability safeguards,
  - Clear parentage rules.
- Align ART law with:
  - Scientific evidence,
  - Constitutional morality,
  - Reproductive rights jurisprudence.
- Parliamentary review to address **legislative oversight**.

Conclusion

The case highlights a critical tension between **medical science, ethics, and law**. By permitting non-genetic parenthood in theory but blocking embryo donation in practice, the ART Act risks violating **equality, autonomy, and rationality**—making judicial scrutiny both timely and necessary.