Today's Prelims Topics

PM SVANidhi

Context

Union Cabinet approved **restructuring & extension** of PM SVANidhi.

What Are The Recent Changes?

- Lending period extended till **31 March 2030** (earlier 31 Dec 2024).
- Aims to benefit **1.15 crore beneficiaries** (incl. **50 lakh new vendors**).
- **Enhanced Loan Limits:**
  - 1st loan: ₹15,000 (↑ from ₹10,000)
  - 2nd loan: ₹25,000 (↑ from ₹20,000)
  - 3rd loan: ₹50,000 (unchanged)
- **UPI-linked RuPay Credit Card:** Issued after repayment of 2nd loan → quick access to emergency credit.
- **Digital Cashback Incentives:** Up to **₹1,600** for digital transactions (retail/wholesale via UPI).
- **Capacity Building Measures:** Training in **financial literacy, entrepreneurship, digital skills, marketing**.
  - Hygiene & food safety training via **FSSAI partnership**.

About the Scheme

- **Launched**: June 2020 (COVID-19 relief measure).
- **Type**: **Central Sector Scheme** (fully funded by GoI).
- **Nodal Ministry**: Ministry of Housing & Urban Affairs.
- **Implementation Partners**:
  - Ministry of Housing & Urban Affairs (overall).
  - Department of Financial Services (DFS) (facilitates loans/credit cards via banks & financial institutions).
- **Objectives**:
  - Provide **collateral-free working capital loans** to urban street vendors.
  - Promote **digital transactions** and **financial inclusion**.
  - Provide **identity & recognition** to vendors.
- **Beneficiaries**: **Street vendors/hawkers in urban areas**, vending on or before **March 24, 2020** (cut-off date).

Source: PIB

President's power to curtail RS member's tenure

Context

- Four Rajya Sabha seats from **Jammu & Kashmir** have been **vacant since Feb 2021**, when the UT was under President's Rule.
    - The **Election Commission (EC)** suggested to the **Law Ministry** that when elections are held, the **President could stagger the terms** of these 4 members so that they don't all retire together after 6 years (to maintain the 1/3rd retirement system).

President's Power to Curtail Rajya Sabha Members' Tenure

- Rajya Sabha (RS) members are elected for **6 years**, with **one-third retiring every two years** (Article 83).
- **Provision for Curtailment**: Under **Section 154 of the Representation of the People Act, 1951**:
    - At the **first constitution of Rajya Sabha (1952)**, the **President, after consulting the Election Commission (EC)**, was empowered to make **special orders** to fix the tenure of members so that **one-third retired every two years**.
    - Again in **1956**, under the **Seventh Amendment Act**, the President exercised this to adjust terms.
    - This power was meant **only for the initial constitution and reconstitution** of RS — to set up the cycle of staggered retirements.
- **Present Limitation**:
    - The **Law Ministry (2024)** clarified that there is **no provision in law for the President to stagger terms now**, beyond the original use in 1952 and 1956.
    - Current vacancies (like the **4 J&K seats**) cannot be adjusted via Presidential order; all new members will serve **full 6-year terms**.

Source: Indian Express

Europe launches UN Sanctions Process Against Iran

Context

- **Britain, France, Germany (E3)** invoked the **snapback mechanism** at UN, launching a **30-day process** to reimpose sanctions on Iran for violating JCPOA.
    - This move bypasses vetoes from China & Russia in UNSC.

Joint Comprehensive Plan of Action (JCPOA) - 2015

- It is a landmark nuclear agreement **between Iran and a group of world powers - P5+1:**
    - **P5**: Permanent members of the UN Security Council- **US, UK, France, Russia, China**
    - **+1** - **Germany**
- **Key Terms of the JCPOA:**
    - Iran agreed to enrich uranium only up to **3.67%** (far below the ~90% needed for weapons).
    - Iran would cut its stockpile by **98%**, from ~10,000 kg to 300 kg.
    - The **Fordow underground facility** could not be used to enrich uranium for 15 years.
    - The **IAEA (International Atomic Energy Agency)** was given full access to nuclear sites.
    - **Iran got relief from US, EU and UN sanctions.**

Related fact

- In **2018**, the **US withdrew** from JCPOA under Donald Trump, reimposing sanctions.

FDI- Led Investment Models

Context

The **Commerce and Industry Ministry** has started consultations with e-commerce giants (Amazon, Walmart-Flipkart) and Indian MSMEs to explore models to **boost e-commerce exports**.

Foreign Direct Investment (FDI)

- Investment made by a **non-resident** in an Indian company through **capital instruments** (shares, convertible debentures, preference shares).
- Conditions:
    - **Unlisted company** → any equity investment by foreigner.
    - **Listed company** → investment of **10% or more of post-issue paid-up equity capital** (on fully diluted basis)
- **Nature**: **Long-term, non-debt creating capital flow**.
- Not the same as **Foreign Portfolio Investment (FPI)** which is <10% equity, short-term, and volatile.
- **What Instruments Count as FDI?:**
    - **Included in FDI**:
        - **Foreign Currency Convertible Bonds (FCCBs)** → when converted into equity.
        - **Foreign Institutional Investment (FII)** → if it meets **FDI conditions** (≥10% in listed equity).
        - **Global Depository Receipts (GDRs) / American Depository Receipts (ADRs)** → if converted into underlying Indian equity shares.
    - **Not FDI**:
        - **Non-Resident External (NRE) deposits** → These are **bank deposits**, not capital/equity investment → counted under **External Commercial Borrowings (ECB)/capital account flows**, not FDI.
- **Routes of FDI in India:**
    - **Automatic Route**: No prior approval; only RBI reporting.
        - **Examples**: Agriculture, Air Transport Services, Automobiles, Greenfield Biotech, Renewable Energy, Construction Development, etc.
    - **Government Route**: Prior approval needed from the concerned ministry.
        - **Examples:** Banking (Public Sector), Multi-Brand Retail, Food Products Retail Trading, Uploading/Streaming of digital news, Print Media, Defence (beyond 74%).
- **Prohibited Sectors for FDI:**
    - Atomic Energy generation.
    - Gambling & betting, Lotteries.
    - Chit funds, Nidhi companies.
    - Real estate business (except construction).
    - Manufacturing of cigars/cigarettes/tobacco.

FDI-led Models of E-commerce

- **Inventory-based Model:** E-commerce entity owns the inventory of goods and sells directly to consumers.
- **Marketplace Model:**E-commerce entity provides a **digital platform** (marketplace) where independent sellers list their goods. The platform acts only as a **facilitator** between buyer and seller.
- **Which Model is Available in India?**
    - **Allowed**: **Marketplace Model** (100% FDI permitted).

        - **Reason**: To prevent online giants from unfairly dominating small retailers by controlling inventory.
    - **Prohibited**: Inventory-based Model.

Regulation of FDI in India

- **Legal Framework:**
    - **Foreign Exchange Management Act (FEMA), 1999** → umbrella law governing foreign exchange and cross-border investments.
    - **FEMA (Non-Debt Instruments) Rules, 2019** → lays down specific rules for FDI, FPI, LLP investment, depository receipts, etc.
    - **Consolidated FDI Policy, 2020** → issued by DPIIT (Dept. for Promotion of Industry & Internal Trade); updated periodically.
- **Regulatory Authorities:**
    - The Department for Promotion of Industry and Internal Trade (DPIIT), under the Ministry of Commerce and Industry, is the main regulator of FDI in India.
    - RBI also plays a key role by enforcing the FDI Rules.

Source: Indian Express

UDISE+ data on school education

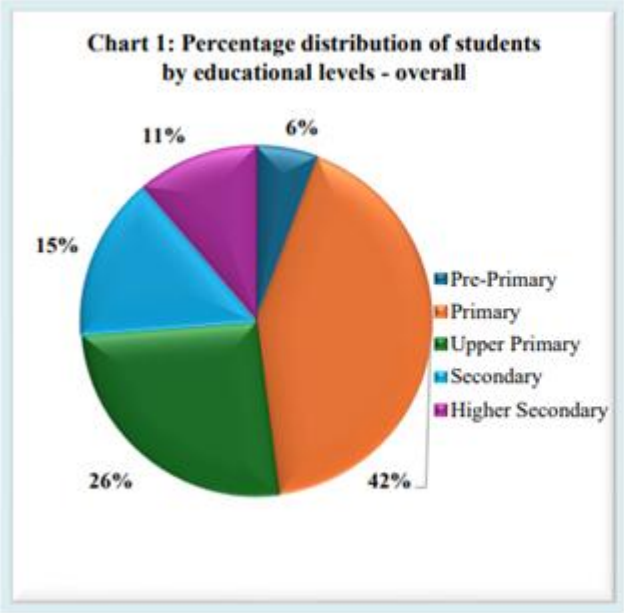
Context

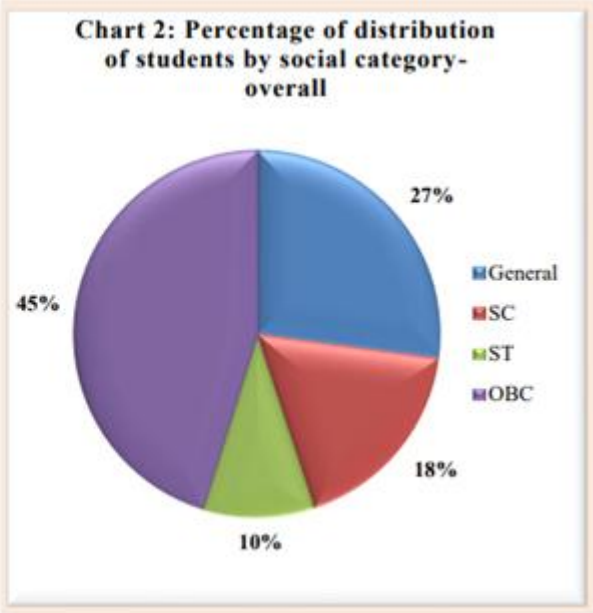
School enrolment of children aged **3–11 years dropped by 25 lakh in 2024–25** compared to 2023–24, according to the latest UDISE+ data.

Unified District Information System for Education Plus (UDISE+)

- **UDISE+** is an **educational management information system** under the **Department of School Education & Literacy, Ministry of Education, Government of India**.
- It is the **largest education data platform** in India.
- Schools use it to record and submit data about:
  - **School profile** (infrastructure & facilities)
  - **Students' details**
  - **Teachers' details**
- Works in **real-time mode**, covering all recognized schools from **pre-primary to higher secondary** levels, including special education.
- Data is collected annually at the **academic year level**.
- Data validation is carried out by **MIS officials at block, district, and state levels**.
- Monitoring is done at **four levels – school, district, state, and national**.
- Provides a **centralized platform** for planning, policy-making, and monitoring of school education.

Data & Insights





- **Total Enrolment Decline:**
  - Classes 1–12 enrolment fell by **11 lakh**, from 24.8 crore (2023–24) to **24.69 crore (2024–25)**.
  - Lowest since 2018–19.
- **3–11 Age Group:**
  - Enrolment dropped by **25 lakh** in anganwadi, pre-school, and Classes 1–5.
- **Long-term Trend:**
  - 2012–13: **26.3 crore** students.
  - 2021–22: **26 crore** students.
  - 2022–23: **25.18 crore**.
  - 2023–24: **24.8 crore**.
  - 2024–25: **24.69 crore** (all-time low).

- **Reason for Decline:**
  - Falling **birth rates** (India's TFR dropped to **1.91 in 2021**, below replacement level of 2.1).
  - Lower number of school-age children entering the system.
- **Enrolment Rise in Higher Classes:**
  - Classes 6–8: **+6 lakh** students (6.36 crore total).
  - Classes 9–12: **+8 lakh** students (6.48 crore total).
- **Gross Enrolment Ratio (GER):**
  - Middle level: **89.5% → 90.3%** (2023–24 to 2024–25).
  - Secondary level: **66.5% → 68.5%** (2023–24 to 2024–25).
- **Dropout Rates (Improved):**
  - Preparatory stage: **3.7% → 2.3%**.
  - Middle school: **5.2% → 3.5%**.
  - Secondary school: **10.9% → 8.2%**.

Source: UDISE+, IndianExpress, TheHindu

5 ISRO technologies transferred to private firms

Context

ISRO transferred **five of its space technologies to Indian private firms** through IN-SPACe to boost commercialization.

5 ISRO technologies transferred to private firms

- **Low Temperature Co-Fired Ceramic (LTCC) Multi-Chip Module**
  - Developed by **Space Application Centre (SAC)**.
  - Integrates multiple semiconductor chips into a compact module.
  - Transferred to **Voltix Semicon Pvt. Ltd., Pune** (for biomedical kits like RT-PCR).
- **RTV Silicone Single-Part Adhesive (SILCEM R9)**
  - Developed by **Vikram Sarabhai Space Centre (VSSC)**.
  - A room-temperature curable adhesive used for **solar panel bonding**.
  - Transferred to **Crest Speciality Resins Pvt. Ltd., Ahmedabad**.
- **Film Adhesives EFA 1753 and EFA 1752**
  - Developed by **VSSC**.
  - Used for industrial composite applications.
  - Transferred to **Azista Composites Pvt. Ltd., Hyderabad**.
- **30W HMC DC-DC Converter**
  - Developed by **U R Rao Satellite Centre (URSC)**.
  - Power converter for space/industrial use.
  - Transferred to **Ananth Technologies Pvt. Ltd., Hyderabad**.
- **Anodisation of 3D-printed Al-10Si-Mg Alloy**
  - Developed by **URSC**.
  - Special surface treatment technology for aerospace & industrial use.
  - Transferred to **Pushpak Aerospace India Pvt. Ltd., Bengaluru**.

Source: TheHindu

News in Short

Exercise Bright Star 2025	**News?** India is set to participate in the 'BRIGHT STAR 2025' from August 28 to September 10, 2025. ● **What is it?** ○ A **biennial, multilateral tri-service military exercise** hosted by **Egypt** in cooperation with the **United States**, since **1980**. ○ Considered one of the **largest military exercises in the Middle East & North Africa region**. ● **Purpose**: ○ Enhance **jointness** and **interoperability** among participating nations. ○ Improve **operational coordination, planning, and execution** of modern warfare. ○ Strengthen **regional peace, stability, and security** through defence cooperation. ● **India's Participation**: ○ First participated in **2023**; continuing in **2025** with over **700 Armed Forces personnel**. ○ Activities include **live firing**, **command post exercises**, **short training drills**, and **subject matter expert interactions**.
Gangotri Glacier	**News?** A new study by IIT Indore, ICIMOD (Nepal), and U.S. researchers has found that the Gangotri Glacier system has lost about 10% of its snowmelt flow in the last four decades (1980–2020). **Key Findings of the Gangotri Glacier Study (1980–2020)** ● **Flow Composition (Average 40 years)** ○ **Snowmelt** = 64% (dominant source) ○ **Glacier melt** = 21% ○ **Rainfall-runoff** = 11% ○ **Base flow (groundwater)** = 4% ● **Decline in Snowmelt Share** ○ 1980–1990 → **73%** ○ 2000–2010 → **52%** (big drop) ○ 2010–2020 → **63%** (partial recovery due to colder, wetter winters) **Key Facts About Gangotri Glacier** ● **Location**: Uttarkashi district, Uttarakhand (central Himalaya, Garhwal region). **Length**: ~30 km (one of the **largest Himalayan glaciers**). ● **Origin of River**: Source of the **Bhagirathi River** (main headstream of the Ganga). ● **Feeder Glaciers**: Fed by tributary glaciers like Raktavarn, Chaturangi, Kirti, etc.
Kushok Bakula Rinpoche	**News?** A documentary on KushokBakula Rinpoche premiered on 27 August 2025 at the India International Centre (IIC), New Delhi. **About Him** ● A revered **Buddhist monk, statesman, and diplomat** from Ladakh, considered an **incarnation of Arhat Bakula** (one of Buddha's 16

	disciples). ● Served as the **spiritual head of Pethup Gompa, Spituk (Ladakh)**. ● Served as **India's Ambassador to Mongolia (1990–2000/2001)**, where he **revived Buddhism** after decades of suppression under communism. ● Credited with building monasteries, promoting **India–Mongolia friendship**, and spreading Buddhism to Russia and Central Asia. **Source:** PIB
Blueberry Production in India	**News?** Blueberry cultivation in India is gaining momentum however domestic output remains **minimal compared to import volumes**. **Facts on Blueberry Production:** ● India produces approximately **2,000–3,000 tonnes of blueberries annually** ● States leading in blueberry cultivation include **Maharashtra (notably Pune & Nashik), Karnataka (Nilgiri Hills), Himachal Pradesh, Tamil Nadu (Ooty & Kodaikanal), and Uttarakhand (Dehradun & Nainital)** ● India imports **over 20,000 tonnes annually** from countries like Chile, Peru, and Panama. **Ideal Condition for Blueberry Cultivation** ● Blueberries require a **cool climate, acidic well-drained soil (pH 4.5–5.5), high organic matter, full sun, and drip irrigation**, with chilling hours crucial for many varieties.
King Prithu	**News?** The Assam government has decided to name a new Guwahati flyover after King Prithu. **About King Prithu** ● King Prithu (also called Prithu Rai or Prithu Singh) was a **13th-century ruler of Kamrup (Assam region)**. ● **Dynasty**: Belonged to the **Khen dynasty** which ruled parts of present-day Assam. ● **Historical Context**: He came into prominence during the **invasion of Bakhtiyar Khilji**, the Turko-Afghan general of the Delhi Sultanate. ● **Battle with Bakhtiyar Khilji**: ○ Around **1205–1206 CE**, Bakhtiyar Khilji launched a campaign to capture Tibet through Assam. ○ He faced fierce resistance from King Prithu's forces in Kamrup. ○ Khilji's army was weakened by local attacks, disease, and unfamiliar terrain. ○ Bakhtiyar Khilji was ultimately **defeated and retreated**, dying soon after. **Source:** IndianExpress

Editorial Summary

Climate Change, Western Disturbances and the Fragile Himalayan Ecosystem

Context

The fragile Himalayan ecosystem is experiencing unprecedented stress due to **climate change and shifting Western Disturbances**, leading to more frequent floods and landslides. The tragic **2025 Jammu flash flood** (40+ deaths of Vaishno Devi pilgrims) is the latest reminder of the crisis.

Changes in the Himalayan Ecosystem

- **Weather Pattern Shift:** WDs now occur in **non-traditional months**, colliding with the Southwest Monsoon, leading to **intense cloudbursts and heavy rainfall**.
    - **Eg:** IMD recorded **14 WDs during the 2025 monsoon**, unusually high for the season.
- **Glacial Retreat: Himalayan glaciers are melting at double the global average**; 2023 ICIMOD report said **75% of glaciers could vanish by 2100** under current warming.
    - **Result:** swelling of glacial lakes and more frequent **Glacial Lake Outburst Floods (GLOFs)** (e.g., **Sikkim's South Lhonak GLOF, Oct 2023**).
- **Landslides & Rockfalls:** Continuous rock reworking + extreme rainfall destabilizes slopes.
    - **Eg: Himachal Pradesh 2023 monsoon** saw >150 landslides, killing ~400 people.
- **Hydrological Extremes:** Changing river regimes: More sudden floods (e.g., **Chamoli disaster 2021**, triggered by rock-ice avalanche + glacial melt).
- **Biodiversity & Livelihood Impacts:** Alpine flora shifting upward; altered habitats for species like snow leopard and Himalayan monal.
    - **Eg:** Medicinal plants like **Kutki and Jatamansi are shrinking** in range.

Causes Behind the Changes

Climatic/Natural Drivers

- **Global Warming & Moisture Loading:** Warmer air holds more water vapor → heavier rainfall during WD-monsoon interaction.
- **Jet Stream Variability:** Climate change alters jet stream flow → shifts WD tracks further south, causing unusual Himalayan rainfall.
- **Glacier Melt & Permafrost Thaw:** Rapid glacier retreat weakens slopes, making them prone to collapse.
- **Snow-Albedo Feedback:** Less snow cover reduces reflection, increasing heat absorption → further glacier retreat.

Anthropogenic Drivers

- **Unplanned Urbanisation & Tourism Pressure:** Massive hotel, road, and parking construction in pilgrim hubs (Kedarnath, Badrinath, Vaishno Devi).
    - **Eg:** Joshimath subsidence 2023, linked to hydropower tunneling + over-construction.
- **Infrastructure Expansion:** Projects like **Char Dham Highway** and multiple hydropower dams fragment fragile slopes.
- **Deforestation & Quarrying:** Hill-cutting, stone mining, and forest loss reduce natural slope stability.
- **Pollution & Aerosols:** Black carbon from Indo-Gangetic plain settles on snow, accelerating melt → Aerosols alter WD cloud formation, increasing erratic rainfall.
- **Climate Change (Human-driven):** Rising GHG emissions accelerating Himalayan warming, termed the "Third Pole crisis.

Impacts of these Changes

- **Human Lives & Property loss:** Jammu 2025 flood (40+ deaths), Himachal 2023 floods (400 deaths, ₹10,000 crore loss).
- **Agriculture losses:** Washed away fields, reduced crop productivity, pest outbreaks.
- **Tourism & Pilgrimage impact:** Heavy disruption on Char Dham, Vaishno Devi, Amarnath Yatra routes.
- **Infrastructure Damages**: NTPC's Tapovan project (Chamoli 2021) was destroyed, highlighting risks of dam clustering.
- **Water Security Risks**: Erratic river flows, rising glacial lake outburst floods.
- **Ecosystem Stress**: Loss of biodiversity, forests, and traditional mountain livelihoods.
- **Displacement**: Mountain villages like **Joshimath** declared unsafe; climate refugees increasing.
- **National Security Dimension:** Army camps and border posts in Ladakh, Sikkim, and Arunachal also face landslide and flood risks.

Why Current Early Warning Systems (EWS) are Failing

- **Low Resolution Forecasting:** IMD predictions often cover districts, not valleys/slopes, missing micro-level rainfall variations.
- **Insufficient Monitoring Stations:** Sparse network of weather radars, rain gauges, and sensors in remote Himalayan regions.
- **Short Lead Time:** Cloudbursts and flash floods occur within hours, beyond current EWS capacity.
- **Data Integration Gaps:** GSI landslide susceptibility maps not fully integrated into state disaster plans.
- **Communication Bottlenecks:** Warnings often don't reach vulnerable villagers, tourists, or pilgrims in real time.

What Can Be Done to Improve Prediction

- **Dense Monitoring Network:** More AWS (Automatic Weather Stations), Doppler radars, and IoT sensors in vulnerable valleys.
- **Localized Hydromet Models**: Develop valley-specific rainfall–runoff models.
- **Integration of Hazard Maps**: Use **GSI landslide susceptibility mapping** & **glacial lake monitoring** in district disaster plans.
- **Multi-agency Coordination**: A **Council of Himalayan States** to synchronize climate adaptation, as proposed by experts.
- **Community-Based Alerts**: SMS/app-based warnings in local languages for pilgrims and villagers.

Role of Technology & AI in Prediction

- **Artificial Intelligence & Machine Learning:** AI can analyze massive datasets (satellite images, rainfall, soil moisture, glacier melt) for real-time risk forecasting.
    - **Eg:** ML-based "nowcasting" models predict cloudbursts within a few hours.
- **Remote Sensing & Drones**: UAVs for slope monitoring, glacial lake mapping, and landslide detection.
- **IoT & Sensor Networks**: Internet-linked sensors in vulnerable slopes and river catchments for early warnings.
- **Crowdsourced Data Platforms**: Mobile apps for citizens to report landslides or unusual water levels, feeding into AI models.
- **Digital Twins of Himalaya:** Creating virtual simulations of valleys to test rainfall thresholds, slope stability, and infrastructure resilience.
- **International Collaboration**: Learn from **Japan's AI-based landslide systems** and **Europe's Copernicus programme** for hazard mapping.

Source: Indian Express, The Hindu

India's Fertiliser Dependence

Context

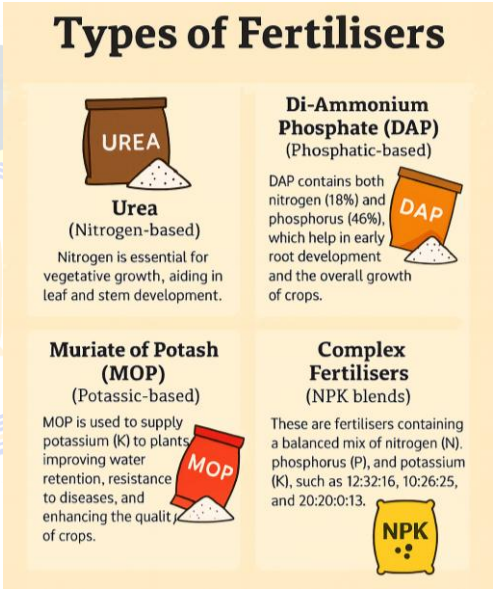
Despite being the world's **second-largest producer and consumer of fertilisers**, India remains **heavily dependent on imports** for key raw materials and finished products. This dependence is both an economic vulnerability and an environmental concern.

Data

- In FY25, **imports met 47.5% of DAP demand, 124% of MOP, 15.2% of complex fertilisers, and 14.6% of urea**.
- Overall fertiliser imports fell 9.7% (FY25 vs. FY24), but consumption hit a record **655.94 lt**, showing rising demand.
- India relies on imports for about 20% of its urea, 50-60% of diammonium phosphate (DAP), and 100% of muriate of potash (MOP).
- **Major import partners:** China, Russia, Saudi Arabia, UAE, Oman, Iran, and Egypt.

Why India is Heavily Dependent on Fertiliser Imports

- **Geological Constraints:** India lacks significant reserves of **phosphate rock and potash**.
    - **Eg:** Entire Muriate of Potash (MOP) demand and 80% of phosphatic raw materials are imported.
- **Energy Dependence for Urea:** Urea production depends on **natural gas as feedstock**.
    - **Eg:** India imports **77% of its gas requirement for urea production** (vs. 24% in 2012–13).
- **Rising Domestic Demand:** Fertiliser consumption has more than **doubled since 2012-13**.
    - **Eg:** FY25-Total sales reached a record 655.94 lakh tonnes (lt) vs. 600.79 lt in FY24 (+9.2%).
- **Insufficient Domestic Production Capacity:** Despite being a major producer, India's capacity is insufficient to meet demand.
- **Subsidy-Driven Demand:** Heavy subsidies, particularly on urea, encourage **overuse and inefficiency**, raising import needs.



Challenges in Fertiliser Production and Self-Sufficiency

Structural Challenges

- **Raw Material Shortages:** Lack of potash and phosphate reserves.
- **Import-Linked Urea**: Dependent on volatile international gas prices.
- **Skewed Nutrient Use**: Farmers in India use too much **urea (nitrogen)** and very little **phosphorus (P) and potassium (K)**. This creates an unhealthy nutrient balance in the soil (current ratio 7:2.7:1 instead of the ideal 4:2:1)

Economic Challenges

- **Rising Subsidy Burden:** Fertiliser subsidies crossed ₹2 lakh crore in 2022–23, straining fiscal space.
    - Rising fertiliser subsidies reduce government's fiscal space, distort domestic production, increase import dependence, and delay structural reforms

- **Price Volatility:** Geopolitical tensions (Russia-Ukraine war, West Asia) disrupt supplies and raise costs.

Governance Challenges

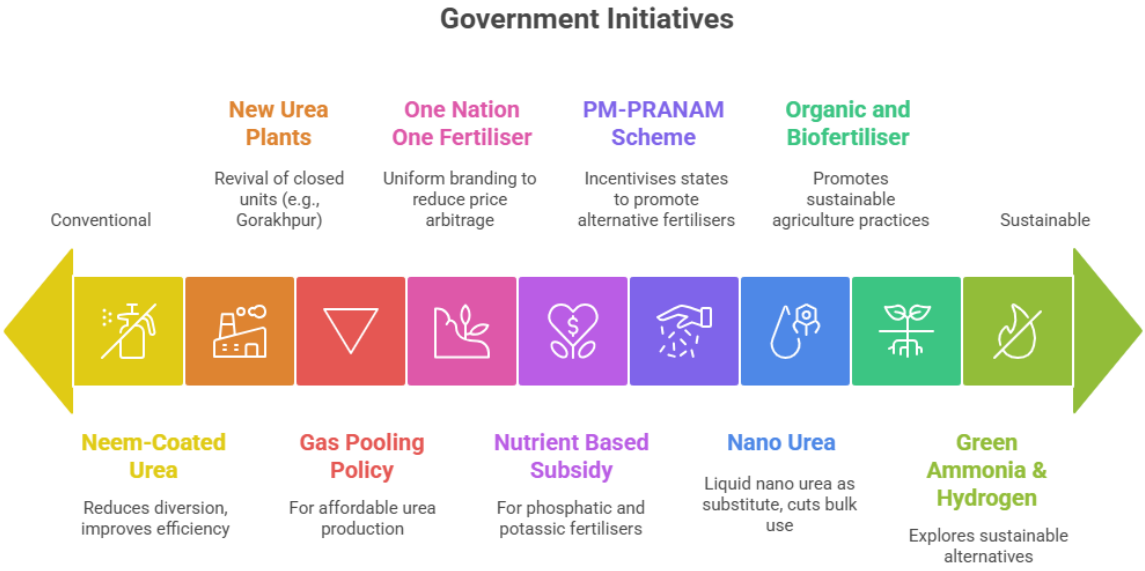
- **Fragmented Administration:** Fertilisers under a separate ministry; agriculture under another → inefficiency.
- **Distribution Issues:** Rationing, farmer queues, and diversion to non-agricultural use.

Technological Challenges

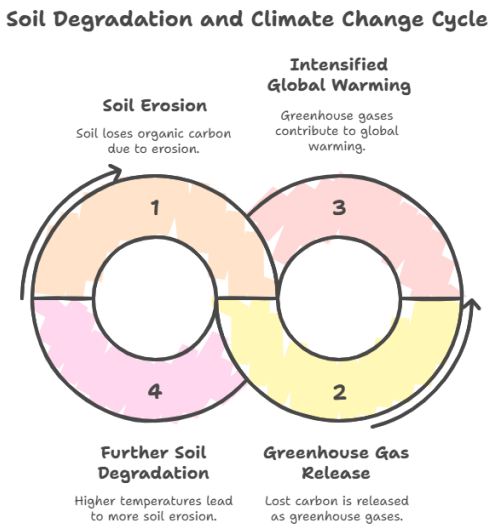
- **Low Productivity of Plants**: Many plants are old, energy-intensive, and uncompetitive compared to global producers.
- **Slow adoption of alternatives:** Nano Urea has promise (1 bottle = 1 bag of urea), but scaling up adoption and ensuring farmer acceptance remain challenges.

Alternatives & Missed Opportunities

- **Organic manure, bio-fertilisers, and green ammonia** could replace up to **30% of chemical fertiliser use**, but lack policy push.
- Subsidies remain skewed towards chemical fertilisers; organic alternatives cover **<8% of sown area**.
- India produces green ammonia, but exports it, as it isn't yet approved for farm use.



The Rising Soil Crisis



- **Overuse of Fertilisers:** Since the Green Revolution, farmers have relied on heavy doses of **urea and DAP** to boost yields.
    - This has led to **soil fatigue** in Punjab, Haryana, Uttar Pradesh, and coastal Andhra.
- **Nutrient Imbalance**: Excessive nitrogen application has reduced soil organic carbon and micronutrients (zinc, sulphur, boron).
    - Soil Health Card Scheme data shows **40% of Indian soils are deficient in organic carbon**.
- **Declining Yields**: Despite more fertiliser use, **marginal productivity of fertilisers is falling** (law of diminishing returns).
- **Soil Acidification & Water Pollution**: Continuous urea/DAP use acidifies soils, lowers microbial activity, and pollutes groundwater with nitrates.
- **Long-Term Food Security Risk:** If overuse continues, India's most fertile soils may degrade beyond repair, threatening future productivity.

Way Forward

- **Diversify Sources & Secure Imports:** Long-term contracts with multiple countries (e.g., Jordan, Morocco for phosphates; Canada, Russia for potash).
- **Boost Domestic Alternatives:** Scale up **nano urea, nano DAP**, and **biofertilisers**.
    - Approve **green ammonia for domestic farm use**.
- **Rationalise Subsidies:** Balance subsidies between chemical and organic fertilisers.
    - Direct Benefit Transfer (DBT) to farmers instead of producers.
- **Correct Nutrient Imbalance:** Promote customised fertiliser blends based on soil health cards.
- **Institutional Reform:** Merge fertiliser ministry with agriculture to align production, policy, and use.
- **Encourage Private Sector & Innovation:** Liberalise pricing and allow private players to invest in organics, biofertilisers, and new technologies.

Source: Hindu Business Line

Elderly Women's Health in India - A Silent Crisis

Context

According to the **India Ageing Report 2023** (IIPS & UNFPA), people aged **60 years and above will constitute over 20% of the population by 2050**. Women, on average, live **2.7 years longer than men**, Yet, elderly women's health issues remain **neglected, under-studied, and under-served**.

Challenges Faced by Elderly Women

Social & Structural Barriers

- **Patriarchal conditioning** makes women prioritise family needs over their own health.
- Health decisions are often controlled by **spouses or adult children**, reducing women's autonomy.
- **Financial dependence**: Nearly **60% of older women lack personal income**; <20% can pay medical bills (vs 44% men).
- **Digital divide:** Very few elderly women use digital devices, restricting access to tele-health and health information.

Access Gaps in Healthcare

- Limited availability of **female doctors and gender-sensitive facilities.**
- Lack of support in navigating complex hospital procedures.
- Rural elderly women often travel long distances to access even basic health services.

Disease Burden & Neglect

- **Non-communicable diseases (NCDs)** like hypertension, diabetes, and cardiovascular illnesses have more severe outcomes in women post-menopause due to hormonal shifts.
- **Bone health**: Women are disproportionately affected by osteoporosis and arthritis; higher risk of fractures reduces mobility and mental well-being.
- **Cancers**: Cervical and ovarian cancers often go undiagnosed until advanced stages.
- **Neurodegenerative diseases**: Alzheimer's and dementia are more prevalent among women (due to longer lifespan and estrogen decline), but underdiagnosed.
- **Mental health**: Only **1 in 10 elderly women with depression** seek help (HelpAge India) due to stigma and poor access to counselling.

Policy Gaps

- Current policies emphasise maternal and reproductive health but **ignore post-reproductive health needs**.
- **Fragmented governance**: Women's ageing issues are not systematically integrated into national health missions.
- **Lack of gender-sensitive geriatric care:** Absence of specialised programmes for elderly women within the healthcare system.

Way Forward

- **Inclusive Health Policies**: Integrate elderly women's health into the **National Health Policy** and geriatric care schemes.
- **Financial Security:** Expand pensions, insurance coverage (Ayushman Bharat), and provide targeted subsidies for elderly women.
- **Gender-Sensitive Healthcare:** Increase training for female doctors and community health workers.
- **Preventive Care & Screening:** Routine NCD screening, osteoporosis check-ups, and awareness campaigns.
    - Early detection of cancers through **pap smears, mammography, and ultrasound**.

- **Digital & Community Interventions:** Bridge the **digital gender gap** through literacy programmes.
    - Use **self-help groups and ASHA workers** for outreach.
- **Mental Health Support:** Expand community-based counselling, social engagement centres, and destigmatise mental health care.

India's elderly women face a **triple burden**: longer lifespans, poorer health in old age, and systemic neglect. To ensure **healthy and dignified ageing**, India must build **gender-sensitive, inclusive health systems**, secure financial and digital access, and promote preventive care.
Source: The Hindu