Today's Prelims Topics

Bangladesh anti-graft panel to probe Russia-backed Rooppur nuclear project

Context

An anti-corruption outfit in Bangladesh has initiated an investigation into the $12.65 billion **Rooppur nuclear powerplant.**

About Rooppur Nuclear Power Plant

- **Location:** Pabna district, 160 km from Dhaka (on the eastern bank of **Padma (Ganga)** river)
- It is **Bangladesh's first nuclear power plant.** It consists of **twin 1,200-megawatt units.**
- Its construction started in **2017**. After completion it will become **Bangladesh's largest power station** in terms of generating capacity once fully operational.
- This project is supported by the **International Atomic Energy Agency**.
- **India's role in the project:**
  - The Rooppur project is the first initiative under an **Indo-Russian deal to undertake atomic energy projects in third countries.**
  - The **Nuclear Power Corporation of India (NPCIL)** is the project's lead authority from India.
  - India is not a member of the **Nuclear Suppliers Group (NSG)** and hence **cannot participate directly** in construction of atomic power reactors.
- **India has signed civil nuclear agreements with 14 countries:** USA, France, Russia, Canada, Argentina, Australia, Sri Lanka, UK, Japan, Vietnam, Bangladesh, Kazakhstan, South Korea and Czech Republic.

International Atomic Energy Agency (IAEA)

- It is an autonomous international organisation **(established in 1957)** within the **United Nations system.**
- It seeks to maximise the contribution of nuclear technology to society while verifying its peaceful use.
- **Member States: 175 (** India has been a member since its inception.)
- **Headquarter**: Vienna, Austria.

Nuclear Suppliers Group (NSG)

- NSG is a **group of nuclear supplier countries** established in **1974.**
- It aims to contribute to the **non-proliferation of nuclear weapons** through the implementation of two sets of Guidelines for nuclear exports and nuclear-related exports.
- NSG guidelines are designed **to prevent nuclear trade for peaceful purposes from contributing to the proliferation of nuclear weapons.**
- **Members: 48 (Including 5 nuclear weapon states US, UK, France, China, and Russia)**. **India is not a member.**
- It is an **informal organization, and its guidelines are not binding.**
- Decisions, including on membership, are made by **consensus.**

UPSC PYQ

Q. In the Indian context, what is the implication of ratifying the 'Additional Protocol' with the international Atomic Energy Agency (IAEA)'? **(2019)**

(a) The civilian nuclear reactors come under IAEA safeguards.

(b) The military nuclear installations come under the inspection of IAEA.

(c) The country will have the privilege to buy uranium from the Nuclear Suppliers Group (NSG).

(d) The country automatically becomes a member of the NSG.

Answer: A

Source:

● **The Hindu - Bangladesh anti-graft panel to probe Russia-backed Rooppur nuclear project**

Octopuses and their kin are a new animal welfare frontier

Context

Cephalopods' unique intelligence and behaviors place them at the frontier of animal welfare considerations. Their advanced cognitive skills and adaptability challenge traditional ethical frameworks, highlighting the **need for regulations similar to those for vertebrates.**

About Cephalopods

- Cephalopods are marine invertebrates belonging to the class **Cephalopoda** within the phylum **Mollusca**. (E.g. **squids, octopuses, cuttlefish** and **nautiluses**)
- **Characteristics:**
  - **Body Structure**: **Soft Bodies** equipped with suction cups or hooks for capturing prey and sensing the environment.
  - **Nervous System and Intelligence**:
    - Highly developed **nervous system** and **large brains** relative to body size.
    - Cephalopods, including **octopuses, cuttlefish and squid** exhibit intelligence comparable to vertebrates.
    - This intelligence is evidenced by their advanced cognitive abilities, learning, memory, and problem-solving skills.
    - Octopus vulgaris has about **500 million neurons**, similar to a starling, rabbit, or turkey.
    - Over **300 million neurons** are distributed in their arms (mini-brains), enabling complex arm movements and sensory processing.
  - **Locomotion**:
    - **Jet propulsion:** Expel water forcefully from their mantle cavity through a siphon to move rapidly.
  - **Camouflage and Defense:**
    - **Chromatophores:** Specialized pigment cells allow rapid color change for communication, camouflage, and predator deterrence.
    - **Ink Sac:** Ejects ink to create a smoke-screen-like distraction for predators.
- **Biological Inspiration:**
  - Jet propulsion mechanics inspire underwater vehicle designs.
  - Camouflage abilities studied for advanced materials and military applications.
- **Source:**
- **The Hindu - Octopuses and their kin are a new animal welfare frontier**

Kashmiri artisans give wings to the dodo

Context
Kashmir's papier-mâché artisans are reviving the extinct dodo by crafting colorful models decorated with symbolic floral and forest prints. These handcrafted dodos are in high demand, particularly in Europe and Mauritius.

About Dodo
- Dodo was a flightless bird that lived on the **island of Mauritius in the Indian Ocean.**
- It was **declared extinct in 1681 ,** just 70-80 years after its
  discovery by Portuguese and Dutch sailors.
- It was a large, plump bird covered in soft, grey feathers,
  with a plume of white at its tail.
- The closest living relative of the dodo bird is the **Nicobar pigeon,**
  which lives on the ground.
- **Causes of extinction:**
  - **Hunting:** The dodo was an easy target for the sailors, who killed it for its flesh.
  - **Habitat loss:** As human settlements increased, the dodo's natural habitat was destroyed.
  - **Introduction of other animals:** The settlers brought other animals to the island, such as monkeys, pigs, dogs and rats, which hunted the dodo.

dodo
(*Raphus cucullatus*)

40 cm

12 inches
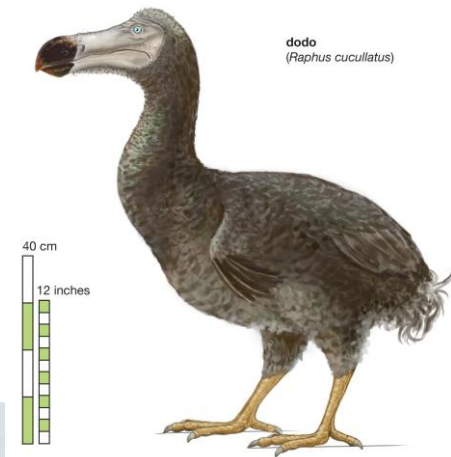
© Encyclopædia Britannica, Inc.

About Papier- Mache Craft
- It is a **traditional handicraft** of the Kashmir Valley, introduced in the **14th century by the Muslim saint Mir Sayyid Ali Hamadani from Persia.**
- It involves **making paper pulp from recycled paper.** It is also known for its rich colors and decorations, which often depict flora and fauna, geometrical patterns etc.
- **Common products:** Vases, bowls, cups, boxes, trays, lamp bases etc.
- Kashmiri papier-mache is protected under the **Geographic Indication Act 1999 &** also covered under the **Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.**

Source:
- **The Hindu - Kashmiri artisans give wings to the dodo**

57 lakh cards to be distributed under SVAMITVA scheme

Context

Prime Minister Narendra Modi has directed all Union ministers to attend the public events to be held to distribute **57 lakh property cards under SVAMITVA scheme.**

About SVAMITVA Scheme
- SVAMITVA stands for **Survey of Villages and Mapping with Improvised Technology in Village Areas.**
- It's a **Central Sector Scheme** launched on **National Panchayati Raj Day (24th April) in 2021.**
- **Objectives of the scheme:**
  - **Financial Asset Creation:** Property can be used as collateral for loans and other financial benefits. Land parcels will gain market value and facilitate credit availability in villages.
  - **Revenue and Taxation:** Enables determination and collection of property taxes. States with empowered Gram Panchayats will directly benefit from property tax revenue.
  - **Rural Planning:** It will facilitate rural planning by creating precise property maps and improve **Gram Panchayat Development Plans (GPDPs)**.
  - **Reduction in Property Disputes:** Legal ownership rights will reduce conflicts over property. Improved property records will help to prevent illegal occupations.
- **Nodal Ministry:** Ministry of Panchayati Raj
- **Stakeholders involved:** Ministry of Panchayati Raj, State Revenue Department, State Panchayati Raj Department and Survey of India.
- **Important features:**
  - **"Record of Rights"** are provided to rural households using the latest Drone Technology and **Continuously Operating Reference Station (CORS) technology** for capturing images.
  - Such accurate maps provide a clear demarcation of land holdings in a very short frame of time compared to on ground physical measurement.
- **Current Achievement:**
  - 2 crore property cards have been issued so far.
  - States like Haryana and Uttarakhand have achieved full coverage.
  - **Future Target:** Aim to cover the entire country by FY 2025-26.

Source:
- **Indian Express - PM tells ministers to attend property card distribution event**

Centre Scraps No-Detention Policy for Classes 5 and 8

Context

The Union government has abolished the no-detention policy for Classes 5 and 8 across schools under its jurisdiction. It will affect schools like **Kendriya Vidyalayas**, **Jawahar Navodaya Vidyalayas**, **Sainik Schools and Eklavya Model Residential Schools.**

About New Rules Under the Ministry of Education

- **Amendment Notification:**
  - The Ministry has amended the **Right of Children to Free and Compulsory Education Rules, 2010**, to include detention provisions.
- **Promotion and Detention Process:**
  - Students who fail regular exams in class 5 and 8 must be given **additional instruction** and a **re-examination** within **2 months.**
  - If they fail the re-exam, they may be **detained.**
- **Responsibility of Teachers and Schools:**
  - Teachers must guide detained students and their parents and provide specialised support to address learning gaps.
  - School heads must maintain a list of detained students and monitor their progress closely.
- **Exam Format:**
  - Exams and re-exams must be **competency-based**, focusing on holistic development rather than memorisation.
- **Key Safeguard:**
  - No child can be expelled from school until the completion of elementary education.

Legislative and Policy Background

- **Right to Education (RTE) Act, 2009:** Section 16 prohibited detaining students up to Class 8.
- **Amendment in 2019:**
  - Allowed states and UTs to decide on holding back students in Classes 5 and 8 if they failed re-examinations.
  - Since then, **18 States/UTs** have scrapped the no-detention policy.

Source:

- **The Hindu - Centre scraps 'no-detention' policy for Classes 5, 8; lays stress on remedial measures**

News in Shorts

Rashtriya Seva Dal (RSD)

- RSD was founded by **N. S. Hardikar (Narayan Subbarao Hardikar)** in **1941.**
- It played a key role in **mobilizing youth and nurturing a spirit of nationalism** during the Indian freedom struggle.
- The organization was closely associated with the Indian National Congress, and many of its members were involved in the party's activities.
- **Pandurang Sadashiv Sane (Sane Guruji)** was an important leader associated with RSD .

Source:
- **Indian Express - A deeper politics of our times**

Khalistan Zindabad Force (KZF)

- Recently Three pro-Khalistan operatives (KZF members) linked to a recent grenade attack in Punjab were killed in an encounter in Pilibhit district of Uttar Pradesh.
- KZF is a militant group which was established by **Ranjeet Singh Neeta in 1993.**
- It is a part of the Khalistan movement to create a separate country Sikh homeland called Khalistan by carving Punjab and some parts of neighbouring states of Haryana, Rajasthan and Himachal Pradesh out of Indian union.
- KZF is listed as a terrorist organisation under the **Unlawful Activities (Prevention) Act.** It is also banned in **European Union nations.**

Source:
- **The Hindu - Three suspected Khalistan operatives shot dead in U.P.**

Editorial Summary

India's 'steel frame' does need a check

Context

Ongoing challenges within the Indian Administrative Service and the broader bureaucracy have underscored the pressing necessity for administrative reforms.

Background of IAS Services in India

Pre-Independence Era

- **Origin in British Administration:** Civil services in British India came with the implementation of **Macaulay's Report 1835.**
  - Later in 1858, **Imperial Civil Service (ICS)** was established by the British in India.
  - It was designed to consolidate British rule in India and administer the country through a small, elite cadre of bureaucrats.
- **Competitive Examination:** Recruitment to the ICS was based on highly competitive examinations **held in London**.
  - This created a barrier for Indians, as few could afford to study or travel abroad.
- **Indians in ICS:** Despite the obstacles, early Indian pioneers like **Satyendranath Tagore (1863)** and **R.C. Dutt** joined the ICS.
  - By the early 20th century, reforms such as the **Montagu-Chelmsford Reforms (1919)** increased Indian representation in the service.
- **Role in Governance:** Backbone of the colonial administration, dealing with law and order, revenue collection, and implementation of policies dictated by the British government.

Post-Independence Era

- **Continuity of Services:** After independence in 1947, the ICS was renamed the **Indian Administrative Service (IAS)** in 1950, becoming a key part of the **All India Services.**
  - It was retained to ensure administrative stability and effective governance during the transitional period.
- **Democratic Recruitment:** The Union Public Service Commission (UPSC) was tasked with conducting open, merit-based examinations to ensure accessibility and fairness.

7 Principles of Public Life
1 Openness
2 Accountability
3 Selflessness
4 Integrity
5 Objectivity
6 Leadership
7 Honesty

  - This enabled a wider section of society, including marginalized communities, to join the IAS.
- **Role in Nation-Building:** The IAS became central to the **planned development approach** of independent India, implementing Five-Year Plans, industrial policies, and socio-economic reforms.
  - Officers were tasked with maintaining law and order, managing revenue, and executing welfare schemes.
  - Over time, emphasis was placed on improving transparency, inclusivity, and accountability in governance.

What are the Current Challenges?

- **Politicisation of the IAS:**
  - Political loyalty influencing transfers, suspensions, and promotions.
  - Undermines morale, professionalism, and meritocracy.
- **Lack of Specialisation:**
  - Frequent department transfers hinder officers from developing domain expertise.
  - Limits their capacity to deal with complex governance challenges effectively.
- **Corruption and Inefficiency:** Bureaucratic corruption erodes trust and hampers policy implementation.
  - **E.g.,** India's percentile rank in controlling corruption has improved by a smaller margin, rising from 39.9 in 2014 to 44.3 in 2022, according to the World Bank collection of development indicators reflecting systemic inefficiencies.
- **Centralised Decision-Making**: Decision-making within the IAS is highly centralized, which can stifle innovation and limit the involvement of lower-level administrators and local stakeholders in governance processes.
- **Structural Weaknesses:**
  - Outdated personnel practices, lack of accountability, and performance monitoring.
  - Bureaucratic inertia hinders implementation of reforms.
- **Risk of Over-Centralisation:** Increased power in the Prime Minister's Office (PMO) may disempower senior IAS officers, affecting their autonomy.
- **Limited Implementation of ARC's Recommendation:** Many of Administrative Reforms Commission (ARC) recommendations remain unimplemented, stalled by bureaucratic inertia and political resistance

---

First Administrative Reforms Commission (1966)
- **Specialisation:** Recommended specialised training for civil servants in their respective fields.
  - Advocated the creation of dedicated departments to handle specific areas of governance.
- **Accountability:** Emphasised the need for transparency and accountability mechanisms.
  - Suggested regular performance appraisals and checks to ensure efficiency.
- **Strengthening Decision-Making:** Advocated decentralisation of decision-making to empower local administration.

Second Administrative Reforms Commission (2005)
- **Lateral Entry:** Recommended allowing professionals from outside the IAS to join the bureaucracy to introduce expertise and competition.
- **Merit-Based Promotions:** Advocated performance-based evaluations for promotions rather than seniority or political influence.
- **Lower Entry Age:** Suggested reducing the maximum age limit for entry into civil services to attract younger talent.
- **Safeguards Against Arbitrary Transfers:**
  - Proposed institutional mechanisms to ensure fair and transparent transfer policies to reduce politicisation.
- **Performance-Based Governance:** Introduced performance-linked incentives to enhance accountability and efficiency.
- **Streamlining Administrative Processes:** Focused on digitisation, e-governance, and simplification of bureaucratic procedures.

Government Push for Reform

- The union government recognized the limitations of the traditional IAS-centric model and initiated lateral entry to bring in domain experts from the private sector and other government services into senior bureaucratic roles.

- ○ Since 2018, the government has actively recruited individuals with specialized knowledge, appointing 57 officers by 2023.
  - ○ This recruitment aims to enhance policymaking with fresh perspectives and expertise.
- The Union Public Service Commission (UPSC) recently advertised 45 posts for lateral entry, including positions for Joint Secretaries and Directors across various ministries.
- This has led to a shift in the composition of Joint Secretaries at the Centre, where only 33% now belong to the IAS, a significant decrease from previous years.

Resistance and Criticism
- The lateral entry initiative has faced backlash from critics, including retired civil servants and opposition parties, who argue it may lower morale among existing officers and lacks reservation provisions for marginalized groups.
- Due to political pressure from allies and concerns over social justice, the government recently requested the cancellation of UPSC advertisements for lateral entry, emphasizing the need for equitable representation in government services.

Challenges to Bureaucratic Reform
- **Institutional Resistance:** Proposals for reforms such as lateral entry, performance-based promotions, and specialized training often encounter pushback from within the service, where seniority-based progression is the norm.
- **Political Interference:** Arbitrary transfers and promotions influenced by political motives undermine reform efforts.
  - ○ Attempts to introduce safeguards, such as the **Civil Services Standards, Performance, and Accountability Bill (2010)**, remain stalled in legislative processes.
- **Limited Impact of Judicial Interventions:** The Supreme Court's 2013 directive to establish **civil services boards** for ensuring fair transfers and postings has seen poor implementation due to lack of enforcement.
- **Inadequate Performance Metrics:** Absence of a robust framework to evaluate bureaucratic efficiency and accountability.
 - ○ Decisions on promotions and placements are not consistently based on measurable performance outcomes.

Pathways for Reform
- **Merit and Expertise in Recruitment:** Prioritise candidates with domain-specific knowledge and skills during selection.
- **Performance-Based Promotions:** Tie career advancement to quantifiable and transparent performance metrics rather than seniority.
- **Protection Against Arbitrary Transfers:** Implement safeguards to prevent politically motivated transfers and suspensions.
- **Fostering Specialisation:** Encourage bureaucrats to specialise in key governance sectors like health, infrastructure, and education to improve policy outcomes.
- **Data-Driven Bureaucratic Management:** Invest in a robust data infrastructure to monitor and assess performance, ensuring informed decision-making on placements and promotions.
- **Holistic and Enforced Reforms:** Adopt a multifaceted, time-bound strategy for administrative reform, ensuring strong enforcement mechanisms for proposed changes.

Best Practices from Other Models

- **U.S. Department of Government Efficiency (DOGE):** The U.S.'s proposed **Department of Government Efficiency (DOGE)** under President-elect Donald Trump provides inspiration for administrative reforms in India.
  - DOGE focuses on reducing inefficiency, eliminating redundant agencies, and introducing accountability mechanisms, with insights from industry leaders.
- **Potential for a Similar Body in India:** Establishing a time-bound advisory commission in India to identify inefficiencies, promote data-driven decision-making, and develop performance metrics for bureaucrats.

Source: The Hindu: India's 'steel frame' does need a check
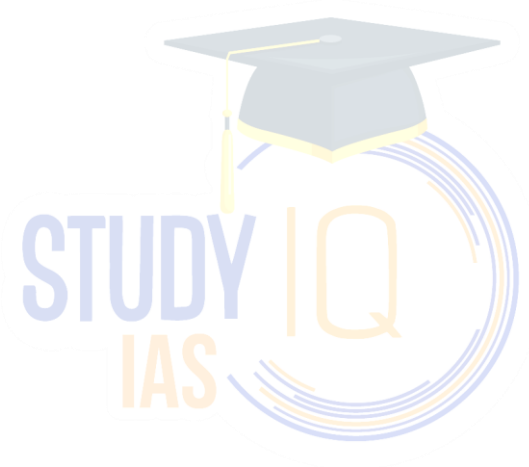
The GATT-ification of the World Trade Organization

Context
The World Trade Organization (WTO), based in Geneva, is facing a significant crisis in its dispute settlement system, particularly the Appellate Body (AB), which has been non-operational since December 2019.

More in News
● This ongoing situation is largely attributed to the United States blocking the appointment of new AB members, a stance that has persisted across multiple administrations, including those of Barack Obama, Donald Trump, and Joe Biden.

The WTO's Foundational Promise (1995)
● **Origins and Vision**:
    ○ Established in 1995, transitioning from GATT (1948-1994) to a rule-based system.
    ○ Introduced comprehensive trade rules for goods, services, and intellectual property.
    ○ Two-tier dispute settlement system with an appellate function, compulsory jurisdiction, and effective retaliation mechanisms.
● **Neoliberal Influence**:
    ○ Reflects the rise of neoliberal ideology in the 1990s.
    ○ Scholars viewed the WTO as a constitutional project, prioritizing international law over international politics.
    ○ Described as the "thickening of legality" in trade by Celso Lafer, former WTO dispute settlement chairman.

The Unravelling of the WTO System
● **China's Role**:
    ○ Joined the WTO in 2001, supported by the U.S., expecting China to adopt free-market principles and abandon state-led industrial policies.
    ○ This expectation did not materialize, and the U.S. believes China exploited the WTO system to its advantage.
● **U.S. Reaction**:
    ○ The U.S. views the WTO as an impediment to addressing China's challenge.
    ○ The Trump administration imposed a **25% tariff on Chinese products in 2018** in violation of WTO rules.
    ○ Trump's promises of additional tariffs suggest a return to protectionist policies.

Current Challenges
● **Operational Inefficiency:** While WTO panels continue to operate and resolve disputes at the first stage, appeals to the non-functional AB have rendered these decisions ineffective.
● **Political Dynamics:** The anticipated return of a protectionist Trump administration could further complicate matters for the WTO and its dispute resolution mechanisms.
● **Lack of Resolution Mechanisms:** Since 2019, cases appealed to the AB remain unresolved, creating a "legal void" where winning parties cannot enforce their rights under WTO law.

Attempts at Reform
● **Multi-Party Interim Appeal Arbitration Arrangement (MPIA):** In response to the AB's paralysis, some WTO members established the MPIA in 2020 as a temporary solution.
    ○ However, it has only settled one case over 4 years and has seen limited participation.

- **Molina Process:** Following commitments made at the 12th Ministerial Conference (MC12) in June 2022, discussions have been ongoing to reform the entire dispute settlement system by 2024.
  - The U.S. has actively participated in these discussions under Marco Tulio Molina's facilitation.

Future Outlook

Despite efforts to reform and revitalize the dispute settlement system by 2024:

- The effectiveness of these reforms remains uncertain due to unresolved issues surrounding the AB.
- There is a growing sentiment among international lawyers that rather than a crisis, there is a regime change occurring within international trade relations—moving away from legally binding commitments back towards more diplomatic negotiations reminiscent of the GATT era.

Source: The Hindu: The GATT-ification of the World Trade Organization
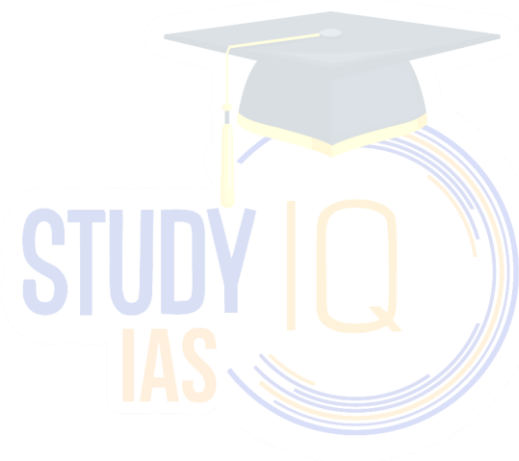
India's reliance on China for critical minerals

Context
● In 2023, the Ministry of Mines identified 30 critical minerals essential for India's economic development and national security.
● The report indicated that India is entirely dependent on imports for 10 of these critical minerals.
● However, it fell short of addressing a more urgent issue: the extent and nature of India's dependency on China.

1.	Antimony	15.	Nickel	iv.	Neodymium	20.	Rhenium
2.	Beryllium	16.	PGE	v.	Promethium	21.	Selenium
3.	Bismuth		i. Platinum	vi.	Samarium	22.	Silicon
4.	Cadmium		ii. Palladium	vii.	Europium	23.	Strontium
5.	Cobalt		iii. Rhodium	viii.	Gadolinium	24.	Tantalum
6.	Copper		iv. Ruthenium	ix.	Terbium	25.	Tellurium
7.	Gallium		v. Iridium	x.	Dysprosium	26.	Tin
8.	Germanium		vi. Osmium	xi.	Holmium	27.	Titanium
9.	Graphite	17.	Phosphorous	xii.	Erbium	28.	Tungsten
10.	Hafnium	18.	Potash	xiii.	Thulium	29.	Vanadium
11.	Indium	19.	REE	xiv.	Ytterbium	30.	Zirconium
12.	Lithium		i. Lanthanum	xv.	Lutetium		
13.	Molybdenum		ii. Cerium	xvi.	Scandium		
14.	Niobium		iii. Praseodymium	xvii.	Yttrium		

China's Dominance in Critical Minerals
● **Resource Base and Investments**:
  ○ China is the world's largest mining nation with **173 types of minerals**, including:
    ■ **13 energy minerals, 59 metallic minerals**, and **95 non-metallic minerals**.
  ○ In 2023, China invested **$19.4 billion in exploration**, discovering **132 new mineral deposits**, including **34 large ones**.
  ○ **Key mineral reserves: copper, lead, zinc, nickel, cobalt, lithium, gallium, germanium, crystalline graphite**, and others.
● **Processing and Refining Capabilities**:
  ○ Controls **87% of rare earth processing, 58% of lithium refining**, and **68% of silicon processing**.
  ○ Strategic overseas investments in mining and refining enhance supply chain control.
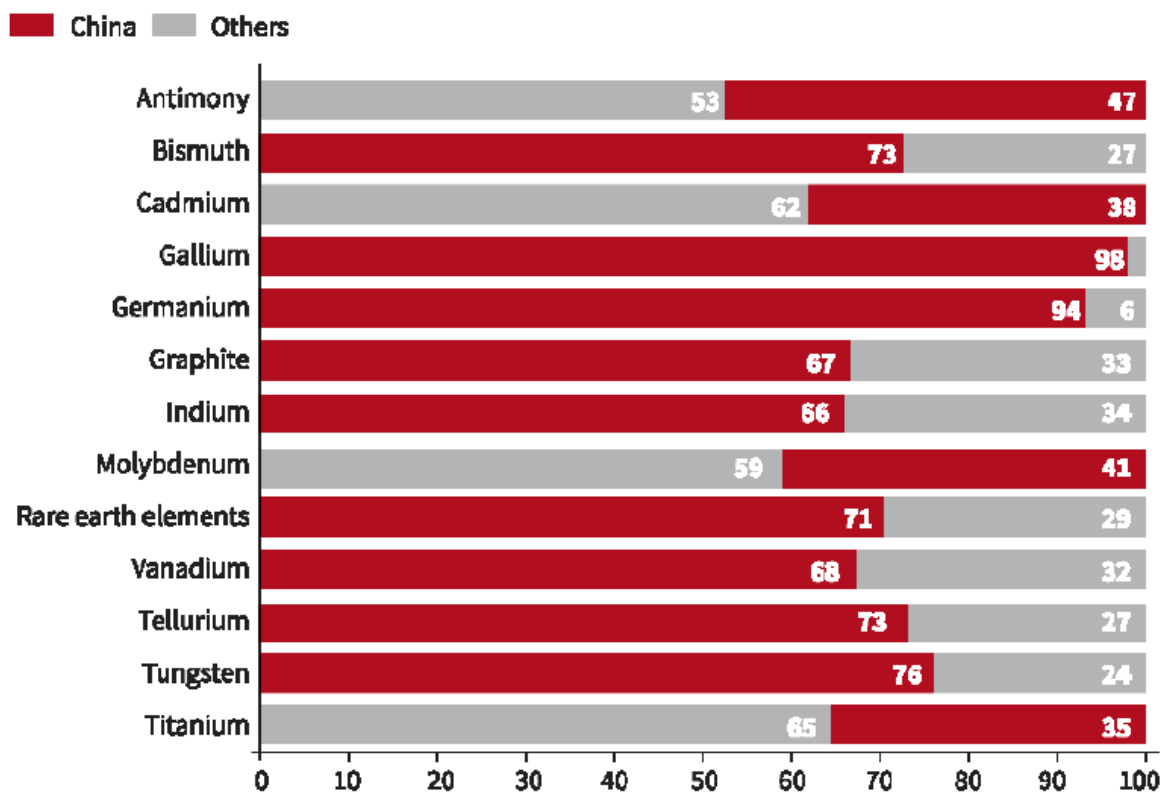
China's Strategic Export Controls
● **Weaponisation of Exports**: Targets critical minerals vital for semiconductors, batteries, and high-tech manufacturing.
  ○ **Example:**
    ■ **2010 rare earth embargo against Japan**.
    ■ **2023 restrictions on gallium, germanium, and antimony exports**.
    ■ **Ban on rare earth extraction and processing technologies in December 2023**.
● **Strategic Balance**: Avoids controlling minerals heavily reliant on Western raw materials.
  ○ Avoids actions disruptive to its domestic industrial and export-dependent sectors.

India's Dependency on China

China, a leading player in critical minerals

China's dominance in critical minerals stems from its vast resource base and strategic investments across the value chain. As the world's largest mining nation, China has discovered 173 types of minerals

China's global market share (in percentage) across various minerals as of 2022

■ China ■ Others

Mineral	China	Others
Antimony	47	53
Bismuth	73	27
Cadmium	38	62
Gallium	98	
Germanium	94	6
Graphite	67	33
Indium	66	34
Molybdenum	41	59
Rare earth elements	71	29
Vanadium	68	32
Tellurium	73	27
Tungsten	76	24
Titanium	35	65

- **Critical Minerals Import Dependency (2019-2024):**
  - **Bismuth (85.6%)**: Used in pharmaceuticals and chemicals; China controls **80% of global refinery production**.
  - **Lithium (82%)**: Crucial for EV batteries; China refines **58% of global supply**.
  - **Silicon (76%)**: Key for semiconductors and solar panels; advanced processing technology required.
  - **Titanium (50.6%)**: Vital for aerospace and defence; diversification exists but switching costs are high.
  - **Tellurium (48.8%)**: Used in solar power and thermoelectric devices; China produces **60% globally**.
  - **Graphite (42.4%)**: Essential for EV batteries and steel production; China dominates **67.2% of global output**, including battery-grade graphite.

Reasons for India's Import Dependency
- **Structural Challenges in Mining**: Critical minerals are often deep-seated, requiring high-risk investments in exploration and mining technologies.
  - Lack of incentives and policy support has deterred private sector participation.
- **Limited Processing Capabilities**: India lacks advanced technological capacity for extraction and processing.

- ○ **Example**: **Jammu and Kashmir's lithium deposits (5.9 million tonnes)** are in clay form, but India lacks technology to extract them efficiently.

India's Efforts to Reduce Dependency

- **Strategic Initiatives**:
  - ○ **KABIL** (Khanij Bidesh India Ltd.): A joint venture of three State-owned companies to secure overseas mineral assets.
  - ○ **Membership in:**
    - ■ **Minerals Security Partnership (MSP)**.
    - ■ **Critical Raw Materials Club** for diversification and partnerships.
- **Investments in Research**: Collaboration with the **Geological Survey of India (GSI)** and the **Council for Scientific and Industrial Research (CSIR)** to develop indigenous technologies.
- **Circular Economy and Recycling**:
  - ○ Promoting recycling to reduce dependency on virgin minerals.
  - ○ Production-linked incentives for critical minerals extraction through recycling.

The Way Forward

- **Sustained Investments**: Addressing mining and processing challenges requires long-term commitment.
- **Diversification**: Expand partnerships to reduce reliance on Chinese supplies.
- **Enhancing Indigenous Capabilities**: Develop technological capacity for extraction and refining critical minerals.

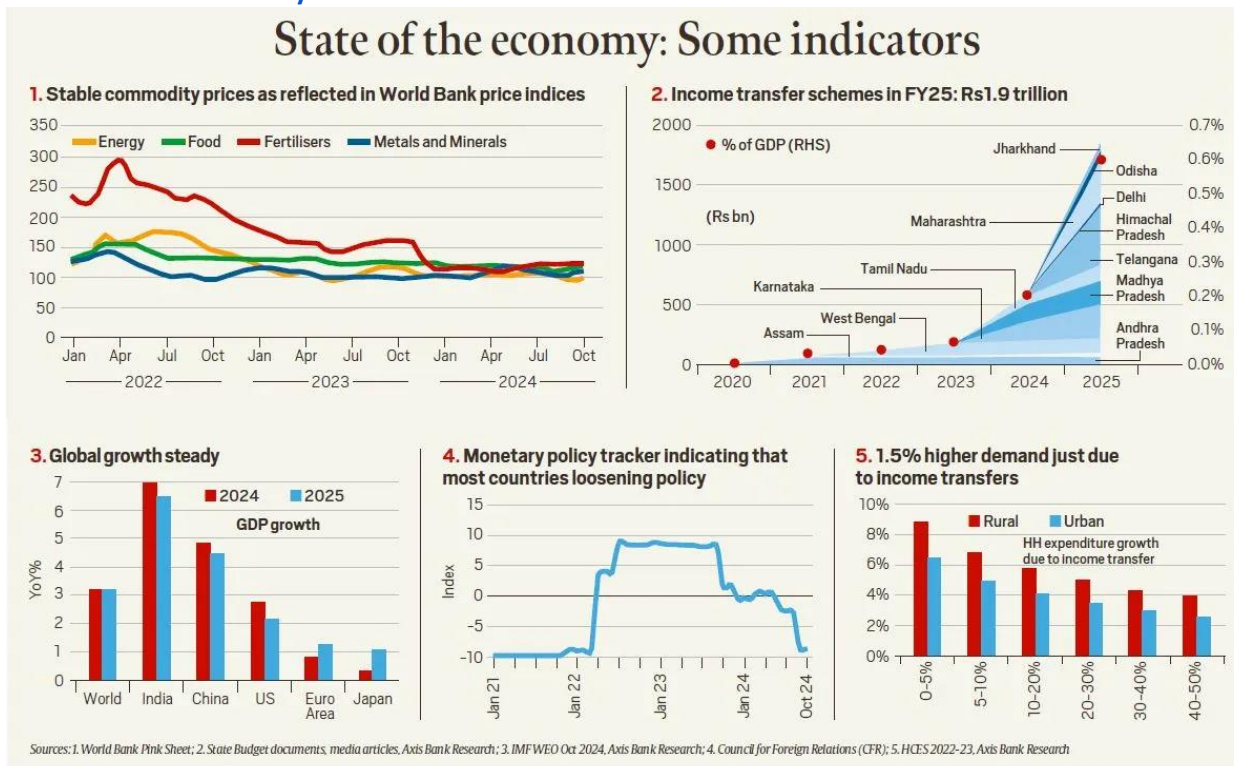**Source: The Hindu: India's reliance on China for critical minerals**
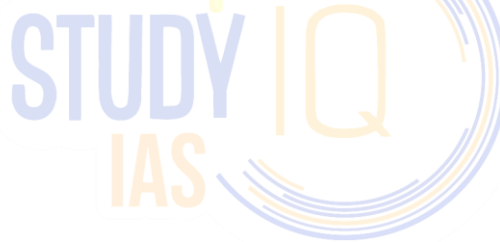
Some positive some concerns

Context

India's long-term growth story remains intact despite a dip in economic output in the first three quarters of 2024.

Positives in the Economy

State of the economy: Some indicators

Sources: 1. World Bank Pink Sheet; 2. State Budget documents, media articles, Axis Bank Research; 3. IMF WEO Oct 2024, Axis Bank Research; 4. Council for Foreign Relations (CFR); 5. HCES 2022-23, Axis Bank Research

- **Government Spending**
  - Fiscal spending is expected to increase post-elections.
  - **CRR Cut**: Recent cash reserve ratio reductions have released additional funds into the banking system.
  - **Capex Cycle Revival**: Renewed investment-led growth is observed in some sectors, with surging order backlogs for capital goods companies indicating improved activity.
  - **Utilities Pivot**: A shift from renewables back to thermal power could boost industrial growth after years of no thermal capacity additions.
- **Possible MSME Recovery**
  - MSMEs, hit by shocks like demonetization, GST implementation, and the pandemic, are potentially recovering and competing with corporates.
  - **Rural Recovery**: Consumption is rebounding in rural areas despite urban growth slowing.
  - **Employment Gains**: Periodic Labour Force Survey (PLFS) indicates improved salaried employment and increased female labor force participation:
    - Post-graduate women's employment rose from 34.5% (FY18) to 39.6% (FY24).
    - Higher secondary-level women's employment increased from 11.4% to 23.9%.
- **Growth in Services**
  - **Services Surplus**: Hit a new high in October 2024, driven by IT exports, cross-border telecom bandwidth expansion, and remote working trends.
  - **Goods vs. Services Exports**: Services exports surpassed goods exports in November 2024 due to strong IT growth and disrupted goods demand.
  - **Technology Risks**: New AI technologies could challenge IT export composition.

Negatives in the Economy

- **Sluggish Investments**
  - Corporate investment is struggling despite pre-Covid corporate tax cuts.
  - **Urban Demand Issues**: Companies like Nestle and Tata Consumer report muted urban demand due to high food inflation and election-related factors.
  - **Challenges in Investment Environment**: India's tax laws and administration hinder optimism.
- **Savings-Investment Gap**
  - **Declining Savings**: Household financial savings fell to 5.3% of GDP in FY23 from 7.3% in FY22, below the 8% average of the last decade.
  - **Rising Debt**: Household debt jumped to 5.8% of GDP, second-highest since the 1970s.
  - Financial savings increasingly bypass the banking sector, causing further concerns.
- **Sliding Credit Growth**
  - Credit growth for households and industries has been declining since 2021.
  - **Bond-Financed Government Spending**: Largely used for cleaning old debt rather than stimulating growth.
  - **Rising NPAs**: New non-performing asset concerns in personal loans and credit card segments, which are unsecured and carry high-interest rates.
- **Fiscal Prudence**
  - **Centre**: Fiscal deficit reduction (6.4% to 5.9% of GDP in FY24) stabilizes public debt at ~83% of GDP.
  - **States**: Increasing subsidies (farm waivers, cash transfers) pose a fiscal problem.
    - **Cost of Handout Schemes**: 14 states may spend Rs 1.9 lakh crore annually (~0.6% of GDP) on women-targeted schemes by 2025.

Source: The Indian Express: Some positive some concerns