

The Hindu Important News Articles For UPSC CSE

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Edition :International ;Table of Contents

Page 01 Syllabus : GS II :International Relations / Preliminary Examination	Arunachal and Aksai Chin between 'unspecified' claim lines on UN-endorsed map
Page 05 Syllabus : GS III :Environment / Preliminary Examination	India's carbon credit scheme receives U.K. recognition: official
Page 07 Syllabus : GS III :Environment / Preliminary Examination	India can cut steel emissions before coal plants lock them in
Page 10 Syllabus :GS II :Governance and Social Justice/ Preliminary Examination	Are nicotine pouches beyond the law?
Page 08: Editorial Analysis Syllabus : GS III :Science and Tech	Ground control ISRO must focus on space technology as a tool for development

A new UN world map, associated with the UN General Assembly's "Correct the Map" resolution (sponsored by Togo to promote equal-area cartographic projections like Equal Earth), depicts Arunachal Pradesh and Aksai Chin as distinct territories situated between separate "Indian" and "Chinese" claim lines. Although India voted in favor of the resolution based on its geographic scaling principles, the Ministry of External Affairs (MEA) clarified that the vote does not constitute an endorsement of specific boundary depictions and reiterated that all sovereign Indian territories must strictly align with India's official map.

Key Highlights & Analysis for UPSC

• Cartographic Discrepancies:

- **Arunachal Pradesh:** Shows its southern border with Assam as the "Chinese line" while removing its state border with Nagaland, placing its northern limit on the "Indian line".
- **Aksai Chin:** Displays eastern boundaries under the "Indian line" and western boundaries under the "Chinese line".
- **Unspecified Labels:** Unlike the 2011 UN map, these demarcations are left as unspecified claim lines without explicit explanatory notes on the map.

• Sovereignty vs. Cartographic Principles:

- India backed the resolution to support "cognitive justice" for the Global South, aiming to replace Mercator projection distortions with equal-area representation.
- MEA emphasized a clear distinction between supporting technical map projections and accepting foreign depictions of political boundaries.

• Status of Other Regions:

- **Jammu & Kashmir:** Marked with a dotted line indicating the Line of Control (LoC), accompanied by an explicit explanatory footnote regarding its disputed nature.
- **Kalapani Region:** The map reflects India's administrative control over the Kalapani-Lipulekh-Limpiyadhura area, aligning with India's stand against Nepal's claims.

Arunachal and Aksai Chin between 'unspecified' claim lines on UN-endorsed map

Kallol Bhattacharjee
NEW DELHI

A new world map that was endorsed at the UN during the India-backed "Correct the map" resolution of September 4 in the UN General Assembly has projected India's Arunachal Pradesh and Aksai Chin, which India has maintained is a part of Ladakh, as distinct regions caught between Indian and Chinese "claim lines".

The map which came up on July 1 during the months-long discussion for the UNGA resolution shows Arunachal's southern State border with Assam, indicating the "Chinese line" while eliminating the State's border with Nagaland.

It shows the State's northern border, indicating the "Indian line". Similarly, the map shows Aksai Chin's eastern borders, indicating the "Indian Line" while presenting the western borders of Aksai Chin in what appears to be the "Chinese line". These "claim lines" appear to be a continuation of previous similar maps of the UN. But unlike in the 2011 map of the UN, these lines are not specified as "claim lines" in the July 1 map.

The map depicts Jammu and Kashmir with a dotted line indicating the Line of Control (LoC) between India and Pakistan. However, the issue of the LoC is clearly mentioned in a brief note on the map, explaining the "dotted line represents approximately the Line of Control in Jammu and Kashmir agreed upon by India and Pakistan. The final status of J&K



Fine lines: A section of the world map published by the United Nations in July 2026. UN.ORG

has not yet been agreed upon by the parties". But, there is no note on why the "Map of the World" issued by the UN during the consultation process and endorsed by the "Correct the Map" resolution sponsored by Togo and supported by the African Union depicted Arunachal and Aksai Chin as territories caught between Indian and Chinese claim lines. The map is non-binding, but it will be used by multilateral institutions worldwide.

'Cognitive justice' Discussions on the map began in March 2026 when the African Union supported the "Equal Earth cartographic projection to more accurately represent Africa". The African Union called this approach "cognitive justice". Subsequently, Togo prompted UNGA consultations on the map in April 2026, and the UNGA started informal consultations in July, when the draft map authored by the UN Geospatial on July 1 was taken up.

The External Affairs Ministry had reiterated India's support for the "Correct the Map" resolution on Sunday but declared that "India voted in favour

of the resolution" and explained its position as a vote on the "underlying principle of promoting equal-area cartographic representation". "We also highlighted that the resolution does not constitute endorsement of any specific map, projection or depiction of national boundaries," the Ministry had said.

"India's sovereign territory, including Jammu and Kashmir and Ladakh, must be depicted in accordance with India's official map. Any inaccurate or misleading depiction is unacceptable," said the official spokesperson Randhir Jaiswal. MEA is yet to respond to The Hindu's query on the separate demarcation of Arunachal and Aksai Chin with contesting claim lines from India and China.

The traditional map of India depicts both Arunachal and the entire Jammu and Kashmir (including Aksai Chin) as parts of the sovereign territory of India.

In relation to India's ongoing Kalapani border controversy with Nepal, the map seems to have gone in favour of India, as it reflects India's control over the Kalapani-Lipulekh-Limpiyadhura region, which is claimed by Nepal.

Related Static Dimensions

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- **International Relations & Institutions:**

- **UN Mandate & Limits:** Maps issued by the UN Geospatial Information Section are non-binding in international law but serve as authoritative reference materials across multilateral organizations.
- **Sovereignty & Borders:** Border disputes along the Line of Actual Control (LAC) and the historical context of the Shimla Accord (1914 McMahon Line) versus China's cartographic aggression.

- **Geography & Spatial Projections:**

- **Mercator vs. Equal-Area Projections:** The traditional Mercator projection preserves shapes and angles (useful for navigation) but severely inflates landmasses near the poles while shrinking equatorial regions like Africa and South Asia. Equal-area projections (e.g., Gall-Peters, Equal Earth) correct area proportions to ensure geographic accuracy.

Conclusion

While India's support for the "Correct the Map" resolution reflects its commitment to fair representation for the Global South, the accompanying UN map highlights ongoing challenges in cartographic diplomacy. To safeguard its territorial integrity on global platforms, India must actively engage with UN geospatial bodies to ensure international cartographic standards align with official national boundaries.

UPSC Prelims Practice Questions

Question: The Line of Control (LoC) differs from the Line of Actual Control (LAC) primarily because:

- A. LoC relates to India–China, while LAC relates to India–Pakistan
- B. LoC is associated with India–Pakistan, while LAC is associated with India–China
- C. Both are legally recognised international boundaries
- D. Both refer exclusively to maritime boundaries

Ans: B)

UPSC Mains Practice Questions

Question: "Cartography is not merely a technical exercise; it can also become an instrument of geopolitical signalling." Discuss with reference to India's territorial disputes. **(10 Marks, 150 Words)**

In a significant diplomatic and economic milestone, His Majesty's Treasury (U.K.) has recognized India's **Carbon Credit Trading Scheme (CCTS)** as a qualifying carbon pricing mechanism under the U.K.'s upcoming **Carbon Border Adjustment Mechanism (CBAM) Regulations 2026**. Communicated to the **Bureau of Energy Efficiency (BEE)** under the Ministry of Power, the decision includes India's CCTS in the U.K.'s official indicative list of qualifying overseas schemes.

Key Highlights & Implications for Indian Exporters

- **Prevention of Double Taxation:** Indian exporters of emissions-intensive goods (e.g., steel, aluminum, cement, fertilizers, hydrogen) can offset the carbon costs already paid domestically under CCTS against their U.K. CBAM import tax liabilities.
- **Lower Tax Burden:** UK importers can claim carbon price relief for eligible Indian goods, improving the cost-competitiveness of Indian exports in the UK market.
- **Operational Verification:** Relief relies on UK importers providing evidence and undergoing verification procedures as per British tax laws to prove the exact carbon price paid in India.
- **Alignment with UK CBAM Rollout:** Sets up a clear operational roadmap ahead of the U.K.'s scheduled CBAM enforcement beginning January 1, 2027.

Related Static Dimensions

- **Economy & Bilateral Trade:**
 - **CBAM & Trade Protectionism:** CBAM is a carbon tariff imposed on carbon-intensive imports to prevent "carbon leakage" (where production moves to countries with weaker environmental laws).
 - **Export Competitiveness:** Recognition shields India's energy-intensive export sector from arbitrary trade barriers, building on the broader India-UK economic partnership framework.
- **Environment & Climate Policy:**

India's carbon credit scheme receives U.K. recognition: official

Press Trust of India
NEW DELHI

In a major breakthrough, the U.K. has recognised India's Carbon Credit Trading Scheme (CCTS) as a qualifying criterion for pricing relief under its carbon border adjustment mechanism (CBAM), a move that would reduce the tax burden on domestic exporters, an official said on Monday.

In a communication addressed to the Bureau of Energy Efficiency, Ministry of Power, the U.K.'s His Majesty's Treasury confirmed that the CCTS has been included in the U.K.'s published indicative list of overseas carbon pricing schemes assessed as qualifying criteria under a provision of the Carbon Bor-



The recognition is expected to reduce tax burden on Indian exporters. GETTY IMAGES

der Adjustment Mechanism (Calculation of CBAM Rate and Determination of Carbon Price Relief) Regulations 2026, the official said.

"This will reduce the effective CBAM liability on Indian goods, directly benefiting Indian exporters," the official said.

Daily News Analysis

- **Carbon Credit Trading Scheme (CCTS):** Established under the *Energy Conservation Act, 2001* (amended 2022) and administered by BEE, CCTS assigns emission intensity targets to notified industries, issuing Carbon Credit Certificates to entities that beat their targets.
- **Carbon Pricing Mechanisms:** Market-based instruments that monetize carbon footprints, encouraging industries to adopt cleaner tech and transition to net-zero pathways.

Conclusion

The U.K.'s recognition of India's CCTS establishes a balanced precedent for international climate trade negotiations. By ensuring domestic compliance efforts are acknowledged on global platforms, India successfully protects exporter interests while maintaining momentum toward its national climate and net-zero commitments.

UPSC Prelims Exam Study Questions

Question: The term "carbon leakage" refers to:

- A. Leakage of carbon dioxide from underground storage facilities
- B. Relocation of carbon-intensive production to jurisdictions with relatively weaker climate constraints
- C. Loss of carbon credits from a trading platform
- D. Natural absorption of carbon dioxide by forests

Ans: B)

UPSC Mains Exam Study Questions

Question: "Carbon Border Adjustment Mechanisms represent the growing convergence of climate policy and international trade policy." Discuss their implications for India's export competitiveness. **(10 Marks, 150 Words)**

India's steel sector—which accounts for nearly 12% of the country's total greenhouse gas emissions with an emissions intensity 32% above the global average—stands at a critical decarbonization juncture. As India's steel production reached ~160 million tonnes (the second-largest globally), replacing carbon-intensive Blast Furnace–Basic Oxygen Furnace (BF-BOF) systems with cleaner Direct Reduced Iron–Electric Arc Furnaces (DRI-EAF) offers a vital window to avoid locking in decades of coal-based emissions.

Key Highlights & Analysis

- **Decarbonization Targets & "Green Steel" Norms:**

- **National Mission on Green Steel:** Aims to reduce emissions intensity from 2.55–2.65 to 2.2 tCO₂e per tonne of crude steel by 2029-30.
- **Certification Thresholds:** Steel produced under 2.2 tCO₂e/tonne is certified as "green" (with the cleanest tier set at 1.6 tCO₂e/tonne). However, India's baseline remains higher than the global average of 1.85 tCO₂e/tonne.

- **The Strategic Shift (BF-BOF vs. DRI-EAF):**

- Current production mix: 43% BF-BOF, 35% Induction Furnace, and 22% EAF.
- Over 43 million tonnes per annum of blast furnace capacity is due for relining before 2030. Redirecting capital toward DRI-EAF instead of relining or constructing new coal furnaces avoids creating high-emission stranded assets.

- **Transition Pathways & Hydrogen Integration:**

- **Bridge Mechanism:** Transitioning to DRI-EAF using natural gas lowers emissions intensity (~1.2 tCO₂e/tonne) until green hydrogen becomes cost-competitive around 2040–2045.
- **Pilot Projects:** The Ministry of New and Renewable Energy (MNRE) funded pilot green hydrogen steelmaking projects (~₹400 crore) to build technical feasibility for 100% green hydrogen usage.

- **Global Trade & Policy Drivers:**

- Implementation of the EU's Carbon Border Adjustment Mechanism (CBAM) penalizes high-emission steel exports, forcing Indian steelmakers to adopt lower-carbon technology to protect international market share.

Related Static Dimensions (UPSC GS Paper II & III)

- **GS Paper III (Economy & Industrial Policy):**

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Daily News Analysis

- **Hard-to-Abate Sectors:** Heavy industries (steel, cement, chemicals) requiring high-temperature heat and chemical reduction where electrification is challenging.
- **National Green Hydrogen Mission:** Aims to produce 5 MMT of green hydrogen annually by 2030, serving as the core feedstock for zero-emission steelmaking.
- **GS Paper III (Environment & Climate Change):**
 - **Scope 1, 2, & 3 Emissions:** Direct process emissions (Scope 1), purchased energy emissions (Scope 2), and supply-chain emissions (Scope 3) targeted by corporate net-zero commitments.
 - **Circular Economy:** Utilizing steel scrap in EAF units reduces dependence on primary iron ore smelting, saving energy and cutting overall process emissions.

Conclusion Decarbonizing India's steel sector requires shifting away from upcoming coal-furnace capital lock-ins toward DRI-EAF infrastructure. By pairing timely technology investments with scalable green hydrogen and robust domestic demand for low-carbon steel, India can safeguard export competitiveness while advancing its net-zero 2070 targets.

UPSC Prelims Practice Questions

Question: In the context of climate policy, a hard-to-abate sector is one where:

- A. Emissions can easily be eliminated through conventional energy efficiency
- B. Decarbonisation is technically or economically difficult because of process emissions, high-temperature heat requirements or other structural constraints
- C. The sector has no economic importance
- D. Only agricultural emissions are generated

Ans: B)

UPSC Mains Practice Questions

Question: How can India's green steel policy balance emission reduction, production costs, export competitiveness and employment? (10 Marks, 150 Words)

A study led by the ICMR-National Institute of Cancer Prevention and Research (NICPR) highlighted that tobacco-free nicotine pouches are reaching urban Indian markets via gig-delivery apps, vape shops, and e-commerce platforms. Following a WHO warning on emerging smoke-free nicotine products, the trend has raised concerns regarding India's legal and regulatory framework governing these items.

Are nicotine pouches beyond the law?

Does COTPA cover nicotine pouches? Why are they not covered by the law banning vapes? Could nicotine pouches be treated as food under Indian law? Can they be legally imported into India? Can nicotine pouches be sold at duty-free shops?

EXPLAINER

Murali Neelakantan

The story so far:

A new study led by the ICMR-National Institute of Cancer Prevention and Research has found that nicotine pouches are reaching Indian cities through online platforms, hookah shops and gig delivery services. The study comes after a warning from the World Health Organization in May 2026 about the dangers these products pose. Yet it is far from settled which Indian law, if any, governs them.

What are nicotine pouches?

A nicotine pouch is a small, tobacco-free, tea-bag-like sack containing nicotine, flavourings and plant-based fibres. Users place the pouch between the lip and gum for up to an hour, allowing nicotine to be absorbed directly into the bloodstream without smoke, vapour or spitting.

Does COTPA cover nicotine pouches?

The Cigarettes and Other Tobacco Products Act, 2003 (COTPA) governs the marketing, advertising and sale of cigarettes and other tobacco products. But its definition of tobacco products does not extend to all products containing nicotine. Had the legislature intended to cover every extract of the tobacco plant, it could have said so. Restrictions on the freedom of trade and commerce must be strictly construed and since nicotine pouches are not among the products listed in the Cigarettes Act, they fall outside it.

Are they regulated by the Drugs Act?

Nicotine is not listed as a drug in any schedule of the Drugs and Cosmetics Act, 1940. Nicotine patches and gums have, however, been approved as drugs by the Drug Controller General of India for therapeutic use in treating nicotine addiction. Schedule K under the Drugs and Cosmetics Rules, 1945 lists gums and lozenges and exempts them from licensing and prescription requirements if they contain less than 2 mg of nicotine.

If nicotine were not considered a drug



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at all, there would be no reason to exempt certain nicotine products in Schedule K. The very fact that only some nicotine products are exempted suggests that all others are meant to be regulated by the Drugs Act.

Against this, pouches are arguably unlike patches and gums. They make no therapeutic claim and do not purport to treat addiction; they are a substitute for cigarettes. On this reading, they do not qualify as drugs under the Drugs Act.

Why are they not covered by the law banning vapes?

The import and sale of vapes is banned by the Prohibition of Electronic Cigarettes Act, 2019 ("PECA"). If vapes were drugs, no separate legislation would have been needed: the government could have regulated them, or refused licences, under the Drugs Act. The enactment of PECA therefore suggests that the Drugs Act did not give it adequate power to ban them. Nicotine pouches are different from vapes: they contain no electronic device and produce neither smoke nor vapour. They are consequently not covered by PECA.

Could pouches be treated as food?

The Prevention of Food Adulteration Act and the Food Safety and Standards Act define food broadly: any processed, partially processed or unprocessed substance intended for human consumption. Court rulings on supari and chewing tobacco establish that the

definition has a very wide amplitude, encompassing items that are chewed rather than swallowed. It is arguable, then, that nicotine pouches could fall within the broad definition of food.

Can pouches be imported into India?

Import restrictions flow from two statutes: the Foreign Trade (Development and Regulation) Act, 1992 and the Customs Act, 1962. The Foreign Trade Act empowers the Central government to prohibit, restrict or regulate imports; the Directorate General of Foreign Trade (DGFT) administers this and publishes the ITC-HS classification listing which goods are free, restricted or banned. Section 11 of the Customs Act allows the government to prohibit goods wholly or partly by notification, on grounds that include the protection of human, animal or plant life.

After the World Customs Organization updated the Harmonized System, a sub-category was introduced for oral nicotine products that do not involve combustion: 2404 91 30 covers tobacco-free single-use pouches of the Zyn or Lyft type, and 2404 91 90 covers other oral nicotine products not meant for therapeutic uses. These replaced a residual category for other manufactured tobacco substitutes; the codes for medicaments apply only where a product is strictly a cessation aid. Under the DGFT schedule and the rules of the Central Board of Indirect Taxes and Customs, goods under 2404 91 30 are "restricted".

Unlike "free" items, they cannot be cleared merely on payment of duty, and unlike "prohibited" e-cigarettes, they are not banned outright – but they require a specific licence or permission. In deciding, the DGFT cross-references the health and other ministries.

What about duty-free shops?

Nicotine pouches are currently available at a few duty-free stores at Indian airports. Such stores are licensed under Section 58 of the Customs Act and cannot claim to be entirely outside Indian law.

It is sometimes said that a duty-free shop lies outside the territory of India, and that it is the passenger who imports the goods on crossing customs control. In *Fleming Duty Free Shop Pvt. Ltd. v. Shri Kaushik Bhattacharya* (2024), the Calcutta High Court held that a duty-free store did not "import" goods into India, being deemed to be located outside it for the purposes of the Customs Act, and that legal metrology labelling requirements therefore did not apply. This should not be read to mean no Indian law applies to duty-free shops. If no Indian law applied to stores, could they stock arms and ammunition? If a crime was committed in a duty free store, which court would have jurisdiction to try the case? Which police station would have jurisdiction to register a case? That would be just too absurd.

Cigarettes, alcohol, jewellery, watches, food and small electronic items are some of the goods permitted at duty-free shops. Nicotine pouches are not – unless one can argue they are food. Given their customs classification as restricted, it is unlikely that any import licence has been granted.

What is the legal position?

The legal position is intricate, but the remedy is not. A notification under the Customs Act and the Foreign Trade Act banning the import and sale of nicotine pouches on health grounds would take minutes to issue. If the government moves as slowly as it did with vapes, pouches will become fashionable, and demand will settle in. A ban notified after that point will only produce smuggling on the scale we now see with vapes and cause damage to health that will be hard to mitigate.

(Murali Neelakantan is a lawyer)

THE GIST

Nicotine pouches are not covered by COTPA or PECA, while their status under the Drugs Act is debatable. They could also arguably fall within the broad definition of food

Tobacco-free, single-use nicotine pouches require a specific licence or permission under the DGFT's ITC-HS classification; they are not prohibited outright like e-cigarettes

The government can prohibit their import and sale on health grounds. Delaying action could lead to established demand and smuggling, as seen with vapes

Key Highlights & Legal Analysis

- **COTPA (2003) Coverage:**

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Daily News Analysis

- The *Cigarettes and Other Tobacco Products Act (COTPA)* governs tobacco products. Because nicotine pouches contain synthetic or extracted nicotine without actual tobacco leaf content, they strictly fall outside COTPA's listed statutory definitions.
- **Drugs and Cosmetics Act (1940):**
 - Nicotine replacement therapies (NRTs) like gums/patches (<2 mg) are exempted under Schedule K for therapeutic use.
 - Central/State drug controllers maintain that non-therapeutic, recreational nicotine pouches qualify as unapproved drugs requiring mandatory registration and import licenses, as seen in regulatory actions at Mumbai Airport.
- **Prohibition of Electronic Cigarettes Act (PECA, 2019):**
 - PECA bans electronic nicotine delivery systems (vapes/e-cigarettes). Nicotine pouches do not use heating elements or produce vapor, making PECA legally inapplicable to them.
- **Classification as Food (FSSAI):**
 - Under the *Food Safety and Standards Act, 2006*, "food" includes substances intended for human consumption or chewing (e.g., gutka/supari rulings). Pouches could arguably be regulated or banned under FSSAI provisions barring harmful non-food additives in chewable products.
- **Imports & Duty-Free Retail:**
 - **DGFT & Customs:** The World Customs Organization code (2404 91 30 for oral tobacco-free nicotine pouches) classifies them under "Restricted" import categories, requiring specific licenses.
 - **Duty-Free Stores:** Operating within Indian territorial jurisdiction subjects these outlets to domestic regulatory oversight. Unapproved import and commercial sale without proper drug or import licenses violate customs and drug control mandates.

Related Static Dimensions

- **Governance & Public Health:**
 - **Article 47 (Directive Principles):** Mandates the State to bring about the prohibition of the consumption of intoxicating drinks and drugs harmful to health.
 - **Regulatory Gaps in Public Health:** Regulatory lag occurs when modern synthetic/tobacco-free substitutes outpace legacy legislation like COTPA (2003).
- **Economy & Trade Regulations:**
 - **ITC-HS Classification & Trade Policy:** Directorate General of Foreign Trade (DGFT) uses Harmonized System codes to restrict, license, or prohibit non-essential or hazardous imports.

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Daily News Analysis

- **Customs Jurisdiction:** The legal doctrine establishing that airport duty-free zones remain subject to domestic safety, criminal, and health laws, despite tax-exempt status for customs duty calculations.

Conclusion

Nicotine pouches currently occupy an administrative gray zone between tobacco control laws, drug regulations, and food safety standards. To prevent potential widespread misuse among youth, a unified notification under the *Customs Act* and *Foreign Trade (Development and Regulation) Act*—prohibiting their import and commercial distribution on public health grounds—offers an immediate regulatory solution.

UPSC Mains Exam Study Questions

Question: "Regulatory gaps emerge when technological innovation advances faster than statutory definitions." Discuss with reference to tobacco-free nicotine products in India. (10 Marks, 150 Words)

GS Paper III: Science & Technology

UPSC Mains Exam Practice Questions: "India's space programme must retain its developmental orientation even as the space economy becomes increasingly commercial."
Discuss. (15 Marks, 250 Words)

Context :

The Indian Space Research Organisation (ISRO) recently achieved a major milestone with the launch of EOS-05, India's first geosynchronous Earth observation imaging satellite, aboard a Geosynchronous Satellite Launch Vehicle (GSLV-F17). However, this success coincides with growing internal union friction regarding the agency's long-term restructuring plans. Following the Indian Space Policy (2023), ISRO is gradually transitioning commercial tasks to private entities while reorienting itself toward deep-space exploration and moonshots. This shift creates a critical debate: Should ISRO prioritize high-tech commercial power projections, or return to its founding mandate of leveraging space technology primarily as an instrument for socio-economic development?

Key Analytical Points

1. Core Dilemma: Developmental Mandate vs. Commercial Expansion

- **Founding Principles:** Established under Vikram Sarabhai, ISRO was conceived not for geopolitical space races, but to address national socio-economic challenges like weather forecasting, agricultural mapping, and rural connectivity.
- **Paradigm Shift:** Recent commercial emphasis, startup promotion, and high-stakes exploration risk overshadowing grassroots developmental applications (e.g., tele-education, tele-medicine, disaster management).

2. Staffing, Privatisation, and Internal Tensions

- **Employee Grievances:** Nine ISRO staff associations submitted a joint letter to leadership expressing concerns over severe core-function outsourcing, lack of recruitment, and potential job losses.

Ground control

ISRO must focus on space technology as a tool for development

The irony was evident: on the day the Indian Space Research Organisation (ISRO) had its greatest success of the year – the launch of its first geosynchronous imaging satellite (EOS-05) on a temperamental GSLV – its employee organisations demanded clarity on its long-term plans. But this grievance was long in the making. Since the Indian Space Policy of April 2023, the message has been clear that ISRO would, one day in the unspecified future, stop making commercial satellites and launch rockets. Clearly inspired by NASA, it expects to focus on ambitious exploratory missions and, literally, moonshots. Why would a space agency ramping up space missions upset a section of employees? This is not the paradox it presents. The letter, co-signed by nine employee associations, and addressed to the chairman, seeks clarity on staff-strength, recruitment and the outsourcing of core functions. ISRO says that it will “not be privatised or reduced”; IN-SPaCe, set up to facilitate private participation, says the agency will “not be diminished”, only that the industry’s role must grow. Both are silent on the core concern – potential job losses. This brings up an underlying tension that ISRO must deal with: does its vision of India’s space sector align with its founding principles, of not being enamoured of space races and being laser-focused on space technology as a tool for social development? Or is the image of power, where India is one of a handful of space-faring countries with a mushrooming of ‘space startups’, now the bedrock of that vision?

With a budget 16 times the Department of Space’s – \$24.4 billion against ₹13,705 crore – NASA too has scaled back since the 1960s: from 0.7% of American GDP in 1966 to 0.1% now, and from 36,000 civil servants at Apollo’s peak to about 14,000 today. Unlike NASA, which in its early years designed and made every nut and bolt, ISRO has always had a manufacturing relationship with the private sector (Walchandnagar, L&T). What is different is that the buzz is not about established companies building on experience but new entrants with fleeting foreign capital, most interested in satellite data as a service. No sector can hope to be static; survival can mean significant changes to how it operates. There is yet no serious reckoning with the might of China’s space programme. If India’s space sector in 2035 is to be known as a source of export earnings, a nucleus of value-added services that brings in jobs and absorbs skilled labour, then hard choices taken today may be worth it. But jumping onto a bandwagon of space – as fuel for the science fiction fantasy of billionaires and colonial notions of conquest, to align with some misplaced notion of an ‘exclusive’ club – is foolhardy. ISRO must have a transparent policy that spells this out.

Daily News Analysis

- **Policy Ambiguity:** While official channels (ISRO and IN-SPACe) state that the agency will not be "diminished" or "privatised," they remain silent on long-term civil workforce protection and cadre restructuring.
- **Comparative Model (NASA Lessons):** NASA reduced its civil servant workforce from 36,000 during the Apollo peak to approximately 14,000 today as private commercial participation scaled up.

3. Shift in the Private Ecosystem

- **Historical vs. Modern Industry Partnerships:** Traditionally, ISRO engaged established industrial majors (e.g., L&T, Walchandnagar) for component manufacturing. Current reforms invite venture-backed space startups focused primarily on commercial satellite-data-as-a-service.
- **Capital Risk:** Relying heavily on short-term foreign venture capital introduces market volatility and risks steering satellite missions away from non-profit developmental priorities.

4. Geo-strategic Realities & China's Space Stature

- **Global Competition:** China's space program has built a massive state-led and commercial footprint.
- **Strategic Imperative:** If India aims to develop a robust space economy by 2035 capable of driving high-tech exports, absorption of skilled labor, and value-added geospatial services, structural policy recalibration is necessary.

Related Static Dimensions

- **Science & Technology:**

- *Indigenisation of Technology & Developing New Technology:* Evolution of GSLV cryogenic engines, private-sector participation via IN-SPACe (Indian National Space Promotion and Authorization Centre), and NSIL (NewSpace India Limited).

- *Space Technology in Service of Human Welfare:* Application of remote sensing in precision farming, disaster management, oceanography, and regional urban planning.

- **Governance & Public Policy:**

- *Institutional Reforms & Public Sector Restructuring:* Balancing public-sector job security with private innovation.
- *Policy Implementation:* Evaluating the execution and transparency of the Indian Space Policy 2023.

Conclusion

ISRO stands at a crossroads between its traditional role as a welfare-oriented state engine and an ambitious driver of a commercial space ecosystem. While privatizing routine manufacturing and commercial launch services can foster high-tech jobs and global competitiveness, India must avoid chasing hyper-commercial space races at the expense of social utility. ISRO must

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formulate a clear, transparent human resource and mission roadmap that secures its workforce while keeping space technology centered on national socio-economic growth.



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