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THE HINDU
INDIA'S NATIONAL NEWSPAPER SINCE 1878

Daily News Analysis

The Hindu Important News Articles & Editorial For UPSC CSE

Monday,04May, 2026

Edition : InternationalTable of Contents

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Page 04 :GS II : International Relations / Prelims Exam

The month of May 2026 marks a period of heightened diplomatic activity for India. Following the 11th Heads of Missions (HOM) conference, Prime Minister Narendra Modi and External Affairs Minister (EAM) S. Jaishankar have embarked on an aggressive outreach strategy, balancing relationships across diverse geopolitical blocs, including BRICS, the Quad, the EU, and the Global South.

Govt. on major diplomatic outreach in May

Modi, Jaishankar to host counterparts from BRICS, Quad, Africa, Europe, and the Indian Ocean Region, and travel to different parts of the world this month; outreach efforts follow the 11th Heads of Missions meet where envoys were urged to improve India's image through 'positive messaging'

Suhasini Haidar
NEW DELHI

Days after a major conference of India's Ambassadors and High Commissioners, where they were urged to be more "proactive" in projecting India's message worldwide, Prime Minister Narendra Modi and External Affairs Minister S. Jaishankar are kicking off a busy summer season, with travels to different parts of the world and hosting a number of their counterparts from BRICS and Quad groupings, Africa, Europe, Asia, and the Indian Ocean Region, all in this month alone.

On Sunday, Mr. Jaishankar arrived in Kingston, Jamaica, at the start of his own nine-day visit to the Caribbean 'CARICOM' grouping of countries, and he will also travel to Suriname and Trinidad and Tobago.

At the 11th Heads of Missions conference last week, the Prime Minister addressed India's envoys worldwide, urging them to improve India's image through more proactive and "positive messaging". According to a number of officials present, who asked not to be identified, Mr. Modi expressed concern over the "slow speed" in communication, in projecting stories about India, and in reacting to developments in their host countries. Putting a special emphasis on India's neighbourhood, Mr. Modi referred to his decision to appoint a politician, Dinesh Trivedi, as the next High Commissioner to Dhaka and indicated that he was seeking more "*anubhavi*" (experienced) hands in nearby countries.

A post by the Prime Minister on social media said the discussions focused on "strengthening India's global engagement through advancing trade, technology and strategic partnerships, while deepening the connect with our diaspora".

Significantly, the Heads of Mission conference was held almost annually in the previous decade. However, after a break during the COVID-19 pandemic, the 10th Heads of Mission meeting was held in October 2022, and the 11th conference was held in April 2026, nearly four years later. In the interim, the External Affairs Minister and Foreign Secretary addressed Regional Heads of Mission conferences in different parts of the world.

While S. Jaishankar is on a visit to the Caribbean, Prime Minister Narendra Modi will travel to Europe for a five-nation tour. FILE PHOTO

The Prime Minister has expressed concern over 'slow speed' in projecting stories about India

The Prime Minister's first major visitor this month will be Vietnamese President To Lam (May 5-7), who will be in Delhi to discuss strengthening the India-Vietnam Comprehensive Strategic Partnership that was upgraded in 2016, with talks on defence cooperation, trade, and critical technologies. The Ministry of External Affairs will also host the 'Indian Ocean Dialogue', a track 1.5 (officials and academics) of the 23-nation Indian Ocean Rim Association, in Delhi (May 7-8), where the war and the Hormuz Strait blockades are expected to be at the top of the agenda.

When Mr. Jaishankar returns from the three-nation Caribbean tour, he will prepare for the BRICS Ministers meeting in May (14-15), where he has invited counterparts from Brazil, Russia, China, South Africa, Egypt, Ethiopia, Iran, the UAE, and Indonesia. Previous rounds of BRICS meetings have been disrupted by the war in West Asia, and a joint statement was elusive at the meeting of Deputy Ministers and Special Envoys due to deep differences between the "parties to the conflict", Iran and the UAE, as well as opposition to India's moves on softening the language on the Israel-Palestine issues and the Gaza conflict.

The Prime Minister will then travel to Europe for a five-nation tour to the Netherlands, Sweden, Norway, Italy, and the Vatican (May 15-20). In Oslo, Mr. Modi will also attend the Nordic-India Summit with the leaders of Denmark, Finland, Iceland, Norway, and Sweden. With the European Free Trade Association in operation and the EU-India Free Trade Agreement finalised, both sides are discussing partnerships in strategic and defence areas as well.

However, the war in West Asia, the ongoing Russia-Ukraine conflict, and ties with the United States are expected to overshadow the meetings. Mr. Modi is also expected to stop over at the UAE, his first visit to the region since the war began.

Later this month, the outreaches will continue, with a visit from Cyprus President Christodoulides to Mumbai and Delhi (May 20-23). U.S. Secretary of State Marco Rubio is expected to travel to India for his first such visit as Mr. Jaishankar hosts the Quad Foreign Ministers Meeting (May 26). The India-Africa Summit, to be held after more than a decade, will be one of the year's major conferences (May 28-30), while later this year, India is due to host the BRICS summit and the Quad Summit as well.

Analysis for UPSC

The current diplomatic offensive is not merely a calendar of events; it represents a calculated shift in India's foreign policy execution. Below is an analysis of the core drivers and strategic implications.

1. Shift Toward "Proactive Diplomacy"

The primary takeaway from the 11th HOM conference is the government's push for "proactive" and "positive" messaging.

- **The Problem:** The leadership expressed concern regarding the "slow speed" of communication and reaction to developments in host countries.

- **The Objective:** To move away from reactive diplomacy and toward "agenda-setting" diplomacy. This involves projecting the "Bharat Story"—a narrative of a resilient, developing, and technologically advancing nation—more effectively to global audiences.
- **Administrative Change:** The appointment of "anubhavi" (experienced) hands in critical neighbourhoods (e.g., Dhaka) signals that the government is prioritizing seasoned diplomats over purely political appointments to manage high-stakes regional relationships.

2. Multi-Alignment: Balancing Competing Blocs

India's foreign policy in 2026 remains anchored in the concept of **Multi-alignment** (as opposed to non-alignment). The simultaneous hosting of BRICS ministers and the Quad Foreign Ministers Meeting (alongside Nordic and European tours) demonstrates this tightrope act.

- **BRICS (Economic & Political Test):** India is navigating the complex expansion of BRICS. By hosting the ministerial meeting, India aims to steer the group toward "tangible delivery" (e.g., financial cooperation, trade) rather than allowing it to become an anti-West bloc.
- **Quad (Public Good & Security):** The focus on the Quad (with the US, Japan, and Australia) remains centered on Indo-Pacific security and maritime domain awareness, providing a necessary counterweight to regional hegemony in the Indian Ocean.
- **Europe (Trade & Tech):** The five-nation tour to Europe and the focus on the India-EU Free Trade Agreement underscore the push for "tech and trade" partnerships, moving beyond just diplomatic rhetoric.

3. Strengthening the "Global South" Pillar

The diplomatic schedule—including visits to the Caribbean (CARICOM), plans for the India-Africa Summit, and the Indian Ocean Dialogue—reinforces India's identity as the "Voice of the Global South."

- **Strategic Rationale:** By positioning itself as a reliable partner to the developing world, India differentiates itself from both Western and Chinese models, offering "debt-free" and "non-predatory" developmental partnerships.
- **Neighborhood First:** The Indian Ocean Dialogue highlights the importance of the Indian Ocean Region (IOR) as the primary theater for India's influence, particularly in the face of disruptions in critical shipping lanes like the Strait of Hormuz.

4. The Geopolitical Challenges

India's diplomatic outreach is occurring amidst a volatile international environment:

- **The West Asia Crisis:** The ongoing conflict and blockades in the Strait of Hormuz are testing India's energy security and its balancing act between traditional partners (like Iran) and newer strategic ones (like the UAE and Israel).

- **Russia-Ukraine:** This remains the "shadow" over every meeting, complicating efforts to build a unified consensus in forums like BRICS and the G20.

Conclusion

India's diplomatic blitz in May 2026 is a testament to its aspiration to become a "leading power" rather than just a "balancing power." By leveraging the **"3Ts" (Trade, Technology, and Tourism/Transnational connectivity)** and insisting on proactive strategic communication, India is attempting to define the narrative rather than being defined by it. The success of this outreach will depend on India's ability to maintain its strategic autonomy while delivering tangible economic outcomes for its partners and ensuring domestic stability in its immediate neighborhood.

UPSC Prelims Exam Practice Question

Ques:Consider the following groupings:

1. BRICS – Economic cooperation among emerging economies

2. Quad – Military alliance under NATO framework

3. CARICOM – Caribbean regional organization

Which of the above are correctly matched?

(a) 1 and 3 only

(b) 1 only

(c) 2 and 3 only

(d) 1, 2 and 3

Ans: a)

UPSC Mains Exam Practice Question

Ques: "India's foreign policy has evolved from non-alignment to multi-alignment."Discuss with suitable examples.**(150 Words)**

Page 04: Prelims Exam

The commencement of the second edition of the India-Cambodia Joint Military Exercise, **CINBAX-II 2026**, marks a significant milestone in the deepening defense partnership between New Delhi and Phnom Penh. Conducted from May 4 to May 17, 2026, in Kampong Speu, Cambodia, this exercise serves as a strategic instrument to enhance operational synergy, interoperability, and mutual trust under the umbrella of India's "Act East" policy.

Key Highlights for UPSC Prelims

- **Exercise Name:** CINBAX-II (2nd Edition).
- **Participants:** * **India:** Indian Army (Contingent from the **Maratha Light Infantry Regiment**).
    - **Cambodia:** Royal Cambodian Army.
- **Location:** Royal Cambodian Air Force Training Centre, Kampong Speu, Cambodia.
- **Mandate:** Conducted under the framework of the **UN Charter's Chapter VII**, which authorizes enforcement actions (including the use of force) to maintain or restore international peace and security.
- **Primary Focus:** * Counter-terrorism operations in **sub-conventional and semi-urban environments**.
    - Training on drone operations, mortar, and sniper tactics.
    - Sharing best practices for UN peacekeeping missions.

Strategic Analysis: Why This Matters

1. Strategic Alignment with 'Act East Policy'

Cambodia is a crucial interlocutor in the ASEAN region. By enhancing defense cooperation, India is solidifying its footprint in Southeast Asia. This bilateral engagement complements India's broader goal of maintaining stability in the Indo-Pacific, balancing regional influence, and countering emerging security threats.

2. Emphasis on 'Sub-Conventional' Warfare

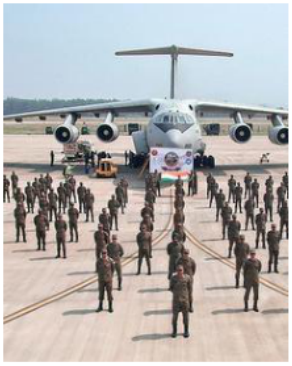
India sends Army team to Cambodia for joint exercise

The Hindu Bureau
NEW DELHI

The Indian Army has dispatched a 120-member contingent for the second edition of the India-Cambodia Joint Military Exercise CINBAX-II 2026, scheduled from May 4 to 17 in Kampong Speu Province, Cambodia. The exercise will take place at the Royal Cambodian Air Force Training Centre.

According to the Defence Ministry, the exercise, conducted under the framework of the UN Charter's Chapter VII mandate, will focus on company-level joint operations in a sub-conventional environment.

The Indian contingent, primarily drawn from a battalion of the Maratha Light Infantry Regiment, will train alongside 160 personnel from the Royal Cambodian Army, it added. It also said the exercise will centre on counter-terrorism operations aligned with real-world UN peacekeeping scenarios.



The Indian contingent is mainly from a battalion of the Maratha Light Infantry Regiment. ANI

CINBAX-II aims to boost interoperability, coordination, and operational synergy between the two forces. It will also serve as a platform to exchange best practices and share operational experiences, particularly in semi-urban combat environments.

The exercise underscores the growing defence ties between India and Cambodia and is expected to deepen bilateral relations while enhancing joint capabilities to address regional and global security challenges.

The shift toward "sub-conventional" training (e.g., guerrilla warfare, urban insurgency, counter-terrorism) reflects the changing nature of modern conflicts. Unlike conventional warfare, these scenarios require high-level precision, intelligence, and coordination, which this exercise aims to refine through joint drills.

3. UN Charter Chapter VII Mandate

For UPSC purposes, it is vital to note the invocation of **UN Chapter VII**. Unlike Chapter VI (which focuses on pacific settlement of disputes), Chapter VII allows the UN Security Council to authorize military action to address "threats to the peace, breaches of the peace, or acts of aggression." Training under this framework suggests that the joint exercise is specifically designed to prepare troops for high-risk peacekeeping missions where they may be called upon to use force to protect civilians or restore order.

4. Historical and Cultural Context

India-Cambodia relations are rooted in deep civilizational ties, notably the influence of Indian culture on the Khmer Empire (exemplified by Angkor Wat). Modern relations have evolved from purely cultural to robust defense and capacity-building cooperation (e.g., ITEC programs, demining support, and training of Cambodian forces).

Conclusion

CINBAX-II 2026 is more than a routine military drill; it is a manifestation of the strengthening India-Cambodia security architecture. By aligning their tactical training with UN standards, both nations are signaling their commitment to global peace and security. For India, this exercise is a tactical step toward building a reliable network of partners in Southeast Asia, ensuring that interoperability remains a cornerstone of its regional security strategy.

UPSC Prelims Exam Practice Question

Ques:Which of the following best describes "sub-conventional warfare"?

(a) Warfare involving nuclear weapons

(b) Traditional state vs state warfare

(c) Low-intensity conflicts such as insurgency and terrorism

(d) Cyber warfare operations only

Ans: c)

Page 06: GS II : Social Justice / Prelims Exam

The Union Health Ministry has launched a landmark national framework to integrate childhood diabetes care into the public health system. This move addresses a critical gap in India's healthcare landscape: the management of non-communicable diseases (NCDs) in children. By moving from sporadic, crisis-driven management to a structured, preventative, and lifelong care model, this initiative marks a paradigm shift in how the state manages chronic pediatric conditions, directly supporting **Sustainable Development Goal (SDG) 3** (Good Health and Well-being).

Core Components of the Framework

The framework operates as a standardized national protocol designed to be inclusive, accessible, and continuous.

- **Universal Screening:** Aligned with the **Rashtriya Bal Swasthya Karyakram (RBSK) 2.0**, the framework mandates universal screening for all children from birth to 18 years. This is conducted at community and school-based platforms (e.g., Anganwadi centers, schools).
- **Integrated Referral Pathway:** It eliminates fragmented care by linking three tiers of the health system:
    - **Community Level:** Early screening and symptom flagging.
    - **District Level:** Confirmatory diagnosis and treatment initiation.
    - **Tertiary/Medical College Level:** Management of complex cases and complications.
- **Comprehensive Care Package:** To mitigate the financial impact of chronic disease on low-income families, the government now provides free-of-cost services, including:
    - Lifelong insulin therapy.
    - Diagnostic tools (glucometers and test strips).

Govt. issues guidelines on childhood diabetes care

New framework provides for universal screening, district-level diagnosis and free lifelong care, including insulin, regular monitoring, and emergency response under public health system

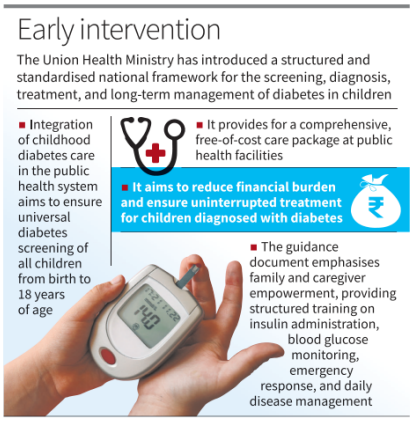
Bindu Shajan Perappadan
NEW DELHI

Integrating childhood diabetes care into the public health system, the Union Health Ministry has, for the first time, introduced a structured and standardised national framework for the screening, diagnosis, treatment and long-term management of diabetes in children.

Releasing the *Guidance Document on Diabetes Mellitus in Children* recently, the Ministry said this aims to ensure universal diabetes screening of all children in India from birth to 18 years of age.

"Suspected cases will undergo immediate blood glucose testing, followed by timely referral to district-level health facilities for confirmatory diagnosis and treatment," a senior Health Ministry official said.

He added that a key feature of the framework is the provision of a comprehensive, free-of-cost care package at public health facilities. This includes screening, diagnostic services, lifelong insulin therapy, monitoring devices such as glucometers and test strips, and regular follow-up care. The approach is designed to reduce financial burden and ensure uninterrupted treatment for children diagnosed with diabetes.



Integrated care

While the initiative positions India among a select group of countries that have integrated childhood diabetes care into the public health system, the document also introduces an integrated continuum of care, linking community-level screening with district hospital-based management and advanced care at medical colleges.

"This convergence ensures that no child is lost in the system and that care continues seamlessly from detection to long-term follow-up," the Health Ministry noted in a release issued on Sunday.

According to the World Health Organization, diabetes is a chronic disease that occurs either when the pancreas does not produce enough insulin or when the body cannot effectively use the insulin it produces. Insulin is a hormone that regulates blood sugar. Hyperglycaemia, or raised blood sugar, is a common effect of uncontrolled diabetes and over time leads to serious damage to many of the body's systems, especially the nerves and blood vessels.

"4Ts" framework

The initiative seeks to support early detection and promote the "4Ts" awareness framework – Toilet, Thirsty, Tired, and Thinner – enabling parents, teachers and caregivers to recognise early warning signs of Type 1 diabetes.

In addition to clinical protocols, the document emphasises family and caregiver empowerment, providing structured training on insulin administration, blood glucose monitoring, emergency response and daily disease management. It also outlines evidence-based treatment guidelines, regular monitoring schedules, and protocols for preventing complications.

The initiative is expected to deliver public health benefits, including reduced mortality due to early detection, prevention of complications, and improved quality of life for affected children. Over the long term, it will contribute to lowering healthcare costs and strengthening health system capacity for managing non-communicable diseases among children.

- Regular monitoring and follow-up.

The "4Ts" Awareness Framework

To facilitate early detection, the government is promoting the "4Ts" framework. This acts as a crucial communication tool for parents, teachers, and caregivers—who are often the first to notice changes—to identify early warning signs of Type 1 Diabetes:

- **Toilet:** Increased frequency of urination (including bedwetting in previously dry children).
- **Thirsty:** Excessive, unquenchable thirst.
- **Tired:** Unusual fatigue or lack of energy.
- **Thinner:** Unexplained or rapid weight loss.

Significance for Public Policy and Health

This initiative represents a strategic response to the rising epidemiological burden of NCDs in India.

1. **Reduction of Out-of-Pocket Expenditure (OOPE):** By covering life-saving supplies like insulin and testing kits, the government addresses a major cause of financial impoverishment among families of affected children, ensuring "continuity of care."
2. **Epidemiological Transition:** While Type 1 Diabetes is the focus, the framework also acknowledges the rise in Type 2 Diabetes among adolescents due to sedentary lifestyles and obesity, creating a scalable system capable of addressing both forms.
3. **Capacity Building:** By formalizing training for families on insulin administration and emergency response (e.g., managing diabetic ketoacidosis), the policy shifts from provider-centric to family-empowered care.
4. **Data-Driven Governance:** Through digital tracking and systematic referral, the policy aims to ensure that no child is "lost to follow-up," a common failure point in previous public health initiatives.

Challenges and Looking Ahead

While the framework is robust in theory, its success hinges on several operational factors:

- **Supply Chain Resilience:** Ensuring the "last-mile" delivery of insulin and testing supplies is critical.
- **Workforce Training:** Constant sensitization of school teachers and Anganwadi workers is required to ensure the "4Ts" are correctly identified and referred.
- **Digital Integration:** Seamlessly integrating these protocols with the Ayushman Bharat Digital Mission (ABDM) will be essential for monitoring outcomes and ensuring long-term health surveillance.

Conclusion

The introduction of this national framework is a progressive step toward making quality healthcare a right rather than a privilege. By integrating childhood diabetes into the core public health system, India is not only reducing immediate mortality risk but is also investing in the long-term productivity and well-being of its demographic dividend. Success will depend on the sustained political will to ensure the policy translates into tangible, zero-cost access at every district-level health facility.

UPSC Prelims Exam Practice Question

Ques: **Consider the following statements regarding Non-Communicable Diseases (NCDs):**

1. They are always infectious in nature.

2. They include diabetes, cardiovascular diseases, and cancer.

3. Their burden is increasing due to lifestyle changes.

Which of the statements given above is/are correct?

(a) 2 and 3 only

(b) 1 and 2 only

(c) 1 only

(d) 1, 2 and 3

Ans:a)

UPSC Mains Exam Practice Question

Ques: Discuss the need for integrating childhood diabetes care into India's public health system.**(150 Words)**

India currently holds the title of the "Pharmacy of the World," primarily due to its dominance in the production of generic medicines and vaccines. However, the global pharmaceutical landscape is shifting. To sustain global leadership and achieve the "Pharma 2030" vision, India must navigate a transition from low-cost, high-volume generic manufacturing to high-value, innovation-led drug discovery. This shift is essential not only for economic growth—targeting a market size of $120–130 billion by 2030—but also for ensuring long-term national health security.

'India needs future-ready workforce to sustain its leadership in pharma'

The Hindu Bureau
CHENNAI

Experts at a webinar underscored the need for India to strengthen its innovation ecosystem, streamline regulatory frameworks, and build a future-ready workforce to sustain its global leadership in pharmaceuticals.

The webinar, "Pharma 2030: Innovation, Regulation and the Rise of India", held on Sunday was organised by *The Hindu* and SRM Institute of Science and Technology as part of the Future Career Conversations series.

It focused on India's evolving role in the global pharma landscape and the shifts required to move up the value chain. Setting the context, S. Vincent, Member-Secretary, Tamil Nadu State Council for Science and Technology, spoke about government initiatives, policy direction, and the broader research ecosystem.

He highlighted efforts to strengthen innovation through science and technology policy and enable the translation of academic research into real-world applications. "A cohesive ecosystem that aligns policy, research, and industry is essential to drive sustainable growth and ensure that innovation translates into real-world impact," he said.

Vasan Sambandamurthy, Senior Vice-President, Strategy and Global Operations, at Bugworks Research Inc., spoke on regulatory frameworks and the role of regulatory bodies in enabling innovation. He noted that while India had strong capabilities in manufacturing and generics, there was a need to strengthen systems that support cutting-edge drug discovery. "Regulatory systems must strike the right balance between safety, speed, and innovation to enable next-generation drug development," he said.

Stronger partnerships

V. Chitra, Dean and Professor and Head, Department of Pharmacology, SRM College of Pharmacy, spoke about academia and the persistent gaps in collaboration with industry. She highlighted challenges in translating research into market-ready solutions and stressed the need for stronger partnerships and interdisciplinary approaches.

N. Damodharan, Vice-Principal and Professor and Head, Department of Pharmaceutics, SRM College of Pharmacy, highlighted the growing role of advanced drug delivery systems, nanotechnology, and formulation science, noting a shift towards more complex and value-driven products.

The session was moderated by Athira Elssa Johnson, Senior Reporter, *The Hindu*.

The webinar can be viewed at newsth.live/pharma

Key Pillars of the "Pharma 2030" Roadmap

The transition requires a multi-pronged approach, often described as the "Triple Helix" model involving Government, Industry, and Academia.

- **From Volume to Value:** The current industry model relies on low-margin generics. Future growth depends on moving into complex segments like **biosimilars, novel chemical entities (NCEs), mRNA platforms, and AI-assisted drug discovery**.
- **Regulatory Agility:** The "regulatory crucible" is a major hurdle. Experts advocate for a system that balances **safety and speed**. This includes streamlining the approval process for clinical trials, promoting international harmonization of data, and providing early scientific advice to developers.
- **Strengthening the Innovation Ecosystem:**
    - **Research Infrastructure:** Moving beyond manufacturing to R&D hubs.
    - **Translational Research:** The biggest gap lies in taking academic research out of the lab and into the market. Stronger interdisciplinary collaboration is needed to bridge this "lab-to-market" divide.
    - **Advanced Tech Integration:** Adoption of nanotechnology, formulation science, and biotechnology to create value-driven, complex drug delivery systems.

Challenges to the Transition

While the roadmap is ambitious, several structural bottlenecks persist:

- **The Skill Gap:** There is a mismatch between traditional pharmaceutical education and the needs of a modern, innovation-led industry. A "future-ready" workforce requires training in regulatory science, advanced biotechnology, and data analytics.
- **Intellectual Property (IP) & Funding:** High R&D costs and the risk associated with new drug discovery deter investment. Startups, in particular, face difficulty raising "risk-tolerant" capital and navigating the complex patent landscape.
- **Supply Chain Dependency:** Despite schemes like the Production Linked Incentive (PLI), the industry remains heavily dependent on imports for Active Pharmaceutical Ingredients (APIs) and Key Starting Materials (KSMs).
- **Compliance Culture:** Regulatory scrutiny (e.g., from the USFDA) highlights the need for a stronger internal "Quality Culture" rather than just regulatory compliance to avoid product recalls and reputational damage.

The Way Forward: Strategic Recommendations

To effectively move up the value chain, the following systemic actions are critical:

1. **Academia-Industry Synergy:** Establish institutionalized mechanisms where industry defines research problems, and academia provides the scientific solutions (translational research).

2. **Mission-Mode Implementation:** Schemes like the *Promotion of Research and Innovation in Pharma (PRIP)* need sustained funding and mission-mode execution to reduce the time-to-market for new therapies.

3. **Digitalization of Quality:** Moving from manual record-keeping to Industry 4.0 standards (AI/ML in manufacturing and quality control) will help ensure consistent compliance with global standards.

4. **Institutionalizing Innovation:** Encouraging a culture of risk-taking in research, supported by favorable IP policies and "fail-fast" frameworks for experimental drugs.

Conclusion

India's pharmaceutical sector stands at a critical crossroads. The transition to an innovation-led model is no longer a choice but an existential necessity to escape the "commoditization trap" of the generics market. By aligning policy, regulatory agility, and human capital development, India can move beyond being merely the "Pharmacy of the World" and emerge as the "Laboratory of the World." This will ensure that India not only captures a larger share of the global high-value pharma market but also addresses domestic health needs with cutting-edge, indigenous medical solutions.

UPSC Prelims Exam Practice Question

Ques:With reference to India's pharmaceutical sector, consider the following statements:

1.India is one of the largest producers of generic medicines globally.

2.India has strong capabilities in drug discovery compared to manufacturing.

3.Regulatory frameworks play a key role in balancing safety and innovation.

Which of the statements given above is/are correct?

(a) 1 and 3 only

(b) 1 only

(c) 2 and 3 only

(d) 1, 2 and 3

Ans: a)

UPSC Mains Exam Practice Question

Ques: Discuss India's position in the global pharmaceutical industry. What are its key strengths?**(150 Words)**

Page : 07: GS III : Science and Tech / Prelims Exam

The character of warfare in outer space is undergoing a paradigm shift. Historically, space security doctrine focused on kinetic threats—the physical destruction of satellites (Anti-Satellite or ASAT weapons). However, the modern battlefield has transitioned to the "silent" domain of cyber operations. Today, space is not merely a theater of war but the "central nervous system" of modern states. With the proliferation of dual-use satellites—assets serving both civilian and military functions—the traditional legal and ethical distinctions between civilian and military targets are rapidly eroding, creating a significant challenge for international security architecture.

How dual-use satellites are blurring the lines of modern space war

The Outer Space Treaty of 1967 and international humanitarian law require warring parties to differentiate between civilian objects and military targets; however, modern satellites are dual-use by default as civilian GPS networks, broadband constellations routinely support intelligence gathering and drone targeting

Shrawani Shagun

When we imagine space warfare, we picture shattered satellites and orbital debris. The reality is quieter but also more dangerous. The markers of modern orbital conflict are signal loss, deliberate misdirection, and sudden system failures.

In the initial hours of Russia's invasion of Ukraine in 2022, a cyber-attack crippled Viasat's KA-SAT network, severing vital communications across Europe. GPS spoofing incidents have similarly misled civilian aircraft and maritime vessels, luring ships into hazardous shoals or corrupting flight computers to trigger false terrain alerts effectively weaponising a platform's own safety logic against its operators.

The next conflict in space will begin with silence, with jammed signals, altered coordinates, and compromised systems. Space is today critical infrastructure and vulnerabilities related to space are often tantamount vulnerabilities in human society.

This vulnerability is built into the architecture of space systems. Interference leaves no physical trace yet it can be devastating. It operates using three tools: jamming (or blocking signals), spoofing (sending false data), and ground station hacking (taking control of satellite systems).

As a result, no physical destruction is needed to paralyse an adversary – which is an important shift in the way conflict plays out in orbit. As financial, energy, and communication networks depend on satellites, such intrusions can also trigger cascading failures on the earth.

Legal blindspot

This change exposes a deeper legal problem. As the Prussian military theorist Carl von Clausewitz observed, war is defined by its effects. If cyber operations can disable satellites that support power grids, financial systems or emergency communications, their consequences are indistinguishable from a physical strike. However, the United Nations Charter does not clearly address cyber operations within its Article 2(4) prohibition on the "use of force".

A functional, effects-based test is therefore essential to interpret "use of force" in the orbital domain. As of 2026, several states have moved to the position that a cyber operation does not require physical 'smoke and fire' to violate Article 2(4). Instead, if a digital intrusion functionally disables a satellite, effectively bricking it, the strategic and economic consequences are identical to a kinetic strike. In this context, loss of functionality is the new shattered glass.

However, it also comes with a challenge, called the attribution gap. Under the International Law Commission framework on state responsibility, legal liability is contingent on identifying the perpetrator with high evidentiary certainty. In the digital domain, operations routed through proxy networks and spoofed identities create a layer of strategic anonymity that complicates traditional deterrence.

This is less a technical flaw and more a structural tension: as long as evidentiary standards are based on visible, physical proof, the invisible nature of cyber-disruption will continue to offer a significant strategic advantage to aggressors. In other words, existing international law recognises force by its consequences – yet it remains in a reactive posture as both the act and the actor remain obscured.

Collapse of civilian-military divide

The legal protections designed to safeguard non-combatants are deteriorating in the face of modern technology. The Outer Space Treaty and international humanitarian law rely heavily on the principle of distinction, requiring warring parties to differentiate between civilian objects and military targets.

However, modern satellites are dual-use by default. Civilian GPS networks, commercial broadband constellations, and financial timestamping systems now routinely support intelligence gathering and drone targeting. Because militaries piggyback on commercial infrastructure, these assets often lose their protected civilian status under international humanitarian law.

That said, in practice, the 'civilian satellite' is becoming a legal fiction. When commercial constellations provide 'space as a service' for military kill-chains – also known as the Starlink Precedent – they dissolve the distinction entirely. In this environment, an entire network can become a legitimate grey-zone target, even if it simultaneously serves schools or hospitals.

Former British army officer and author Emile Simpson has distinguished between traditional Clausewitzian war and contemporary conflict: the former seeks a definitive military decision while the latter functions as a direct instrument of political communication aimed at fragmented audiences.

In space, cyber operations enable ambiguous, deniable attacks that are designed to shape perceptions of state power rather than to secure territorial gains. Because they avoid the debris and visibility of kinetic strikes, they incentivise constant, low-level disruption. This creates a persistent state of friction that never crosses the threshold of war but continuously undermines the political legitimacy of the targeted state.

For India, the 2026 CERT-In/SIA-India Guidelines institutionalised a "secure-by-design" doctrine for space systems. They embed cybersecurity into every stage of the satellite lifecycle, from design and launch to in-orbit operations and decommissioning. They also identify threats such as signal jamming, spoofing, and unauthorised command access, and recommend layered safeguards across space, ground, and communication segments. However, an enforcement gap remains: India is expanding its presence in orbit faster than it is building the ability to detect and trace cyberattacks in real time.

States must move from advisory norms to enforceable 'secure-by-design' standards, clarify when cyber operations in space constitute a use of force, and strengthen cooperative attribution mechanisms. Without this, ambiguity will continue to favour the attacker

Objective of disruption

The response cannot remain reactive. States must move from advisory norms to enforceable "secure-by-design" standards, clarify when cyber operations in space constitute a use of force, and strengthen cooperative attribution mechanisms. Without this, ambiguity will continue to favour the attacker. In a digital battlefield, if an attacker cannot be identified within minutes, they cannot be deterred at all.

For the Global South, this digital battlefield poses the unique threat of orbital dependency. When the digital backbones of developing economies are hosted on third-party commercial constellations, a silent strike can blind a military and, more importantly, effectively paralyse a state's ability to govern, disenfranchising a nation in a single digital stroke.

In this new era, the objective is no longer to destroy a satellite but to disrupt the society that depends on it.

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Conflict in orbit no longer requires satellites to be physically destroyed in order to paralyse an adversary. IMAGE CREATED WITH CHATGPT

THE GIST

- The markers of modern orbital conflict are signal loss, deliberate misdirection, and sudden system failures
- As financial, energy, and communication networks depend on satellites, such intrusions can also trigger cascading failures on the earth
- This change exposes a deeper legal problem. The United Nations Charter does not clearly address cyber operations within its Article 2(4) prohibition on the 'use of force'

The "Dual-Use" Dilemma

Dual-use satellites—systems capable of supporting both commercial telecommunications and military intelligence—are now the norm.

- **The Blur of Distinction:** Under the **Outer Space Treaty (1967)** and **International Humanitarian Law (IHL)**, the principle of distinction mandates that warring parties must distinguish between military targets and civilian objects.

- **The Starlink Precedent:** When commercial constellations provide "space as a service" for military kill-chains, they effectively lose their status as "protected" civilian infrastructure. This creates a "grey-zone" where satellite networks serving hospitals, schools, and financial markets can become legitimate military targets.

Kinetic vs. Non-Kinetic Warfare

Modern orbital conflict prioritizes disruption over destruction. The goal is to paralyze an adversary's societal and military functioning without leaving physical evidence.

Feature	Kinetic Warfare (Traditional)	Non-Kinetic Warfare (Modern)
Method	ASAT missiles, laser dazzling	Jamming, Spoofing, Hacking
Visibility	High (Orbital debris, visible attacks)	Low (Invisible, silent)
Evidence	Physical remnants	Difficult to trace (Attribution Gap)
Objective	Destroy assets/Deny access	Paralyze networks/Create ambiguity
Legal Status	Clearly violates sovereignty	Often falls in a "legal grey zone"

Legal and Strategic Challenges

The rise of non-kinetic space warfare exposes critical weaknesses in the existing international legal order:

1. **The "Use of Force" Interpretation:** Article 2(4) of the UN Charter prohibits the "use of force," but it does not explicitly define cyber operations. States are currently debating whether a "bricked" (functionally disabled) satellite qualifies as a use of force, given that the economic and strategic consequences are identical to a physical strike.

2. **The Attribution Gap:** International law requires identifying a perpetrator with high evidentiary certainty to assign liability. Cyber operations, routed through proxy networks, provide strategic anonymity, making it difficult for the victim state to justify a proportionate response or invoke deterrence.

3. **Societal Vulnerability:** Because financial, energy, and communication grids are now tethered to orbital assets, a silent cyber-attack can cause cascading failures on Earth, essentially disenfranchising a nation without firing a single shot.

India's Strategic Response

India's space doctrine is evolving to match these realities. The **2026 CERT-In/SIA-India Guidelines** institutionalize a **"secure-by-design" doctrine**, shifting from reactive defense to proactive cyber-resilience.

- **Key Focus Areas:** * Embedding cybersecurity into the entire lifecycle (design, launch, decommissioning).
    - Addressing threats like signal jamming and unauthorized command access.
    - Layered protection across space, ground, and communication segments.

- **The Enforcement Gap:** While the policy framework is robust, a clear implementation deficit remains. India's pace of orbital expansion currently outstrips its real-time capacity to trace and attribute cyber-attacks, a critical vulnerability in an era where "if you cannot identify the attacker, you cannot deter them."

Conclusion

The "silent war" in orbit is transforming international relations. As space assets become inextricably linked to sovereign capability, the inability to legally and technically address non-kinetic threats poses a profound risk. For emerging space powers like India, the future of space security lies not just in hardware, but in achieving **technological sovereignty**—developing indigenous, secure-by-design architectures and championing new international norms that define cyber-disruption as a definitive act of force. The transition from reactive posture to active deterrence is essential to safeguard the digital backbone of the nation.

UPSC Prelims Exam Practice Question

Ques: The principle of "distinction" in International Humanitarian Law (IHL) implies:

(a) States must avoid cyber warfare

(b) Military and civilian targets must be distinguished

(c) Only nuclear weapons are prohibited

(d) Satellites cannot be targeted

Ans: b)

UPSC Mains Exam Practice Question

Ques: Differentiate between kinetic and non-kinetic space warfare. Why is the latter gaining prominence?**(250 Words)**

Keeping India's carbon money at home

Archie Parnell

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On January 1, 2026, the European Union (EU)'s Carbon Border Adjustment Mechanism (CBAM) came into effect, and is fully in force. Europe calls it fairness: European producers pay a carbon price, so imports should too. On paper, it sounds equitable; in practice, the door to fair competition is only half-open for India.

European steel, aluminium and cement producers enjoy large decarbonisation subsidies and subsidised public finance. They also continue receiving free allowances under the EU Emissions Trading System, which will be phased out gradually from 2026 to 2034, lowering their effective carbon costs even as CBAM phases in. Indian exporters, by contrast, face the full weight of CBAM charges without equivalent state support.

This tilt sits uneasily with the spirit of the General Agreement on Tariffs and Trade (GATT) Article III, which bars deploying internal charges to shield domestic producers from fair competition.

What the deeper issue is about

The new India-EU Free Trade Agreement (FTA), whose negotiations concluded on January 27, 2026, provides no exemption from CBAM for India. The EU held firm: no country gets country-specific flexibility. The FTA's Annex on Carbon Border Measures (Annex 14-A) does, however, establish a formal technical dialogue on CBAM implementation – including how any effective carbon price paid in India can be taken into account at the EU border, and a most-favoured-nation commitment that any flexibility extended to other countries will automatically extend to India. That narrow opening matters enormously.

The deeper issue is climate justice and sovereignty. CBAM shifts part of Europe's decarbonisation burden onto developing-country exporters while keeping the resulting revenue in European hands. A country that cannot shape the carbon price on its exports, or direct the associated revenues, risks becoming a rule-taker rather than a rule-maker in the green transition.

When Europe sets carbon rules, India must not remain the price taker

India is not starting from zero. The Carbon Credit Trading Scheme (CCTS), notified in 2023, establishes a domestic carbon price through tradable certificates, and will, over time, cover key industrial sectors including steel. Under CBAM Regulation Article 9, European importers may deduct embedded emissions that have already borne a carbon price in the country of origin. That is the legal hook for recognising India's carbon price as an offset to CBAM. The principle, and the legal mechanism, are sound.

Crediting CCTS under Article 9 is both legally defensible and environmentally coherent. CCTS is a compliance-grade market: installations must hold carbon credits against measured emissions, carrying a rupee-denominated value per tonne. Crediting that effective price against CBAM obligations – subject to robust monitoring, transparent exchange-rate conversion, and guarantees that no export rebates neutralise the burden – would prevent double-pricing while preserving CBAM's stated aim of levelling the playing field.

As a counter adjustment

India's next move should be a counter adjustment: an India Border Adjustment Mechanism (IBAM). Rather than accepting CBAM as an inescapable external levy, India could impose its own carbon-based charge on CBAM-covered exports, collected at the point of export. But IBAM must not be rushed or announced unilaterally. It should be developed only through Annex 14-A, so that its design is clearly recognised in advance as a "carbon price paid in the country of origin" for purposes of CBAM Article 9. If India sequences this carefully – using Annex 14-A to lock in how CCTS payments and any IBAM charges will be credited – Indian exporters need not face any higher overall carbon cost than CBAM alone would impose. What they would otherwise pay implicitly as a levy retained in Europe, they would instead pay explicitly through domestic obligations, fully offset at the EU border. The net carbon burden on exporters would be capped at the CBAM level in any event.

Make IBAM a constructive offer

The crucial difference is where the money goes. IBAM revenues would stay in India. Every rupee raised should be ring-fenced in a dedicated, transparently governed fund restricted to verifiable green projects: modernising blast furnaces, expanding low-carbon electricity, scaling hydrogen and scrap-based steelmaking, supporting affected workers – all subject to strict measurable, reportable and verifiable standards, independently audited and publicly disclosed.

Seen this way, IBAM is not a spoiler but a constructive offer. If the EU is serious that CBAM is about preventing carbon leakage rather than protecting revenue, it should recognise credible Indian carbon pricing under Article 9 and treat those payments as genuine offsets. European consumers would still see a carbon-priced product. Indian producers would face no higher net carbon cost.

Most importantly, India would keep its carbon revenues and use them to finance a green transition designed, at least in part, on its own terms.

India should "IBAM the CBAM" – treating FTA Annex 14-A and CBAM's Article 9 not as footnotes, but as levers to keep carbon money at home while engaging seriously with a carbon-priced world.

GS PaperIII:Environment

UPSC Mains Exam Practice Question: What is Carbon Border Adjustment Mechanism (CBAM)? Why has it raised concerns for developing countries like India?**(250 Words)**

Context : The implementation of the EU's Carbon Border Adjustment Mechanism (CBAM) has fundamentally altered the terms of international trade for energy-intensive sectors like steel, cement, and aluminium. By imposing a levy on

carbon-intensive imports to "level the playing field," the EU aims to prevent "carbon leakage"—the relocation of production to jurisdictions with weaker climate regulations.

For India, this presents a dual challenge: the immediate financial burden on exporters and the potential for a "policy-taker" status where global standards are dictated by external regimes. However, the existing architecture of the EU's CBAM, specifically **Article 9**, offers a strategic opening for India to retain its carbon revenues while accelerating its own domestic decarbonization.

The Strategic Rationale for IBAM

The proposal to implement an **India Border Adjustment Mechanism (IBAM)** is essentially a defensive-offensive policy strategy. Rather than viewing CBAM as an insurmountable trade barrier, IBAM reframes it as an incentive to "internalize" carbon pricing.

- **The "Article 9" Hook:** The CBAM regulation explicitly permits the deduction of carbon costs already paid in the country of origin. India's **Carbon Credit Trading Scheme (CCTS)**, now operational across major energy-intensive sectors, provides the legal basis to claim these deductions.
- **Revenue Retention (The "Blue-Green" Dividend):** Under the current trajectory, the "carbon money" paid by Indian exporters flows to the EU treasury. By imposing an IBAM—a domestic carbon charge equivalent to the EU's carbon price—India captures that revenue at home. This can be ring-fenced to fund the **Green Transition**, such as modernizing blast furnaces or expanding renewable energy infrastructure.
- **Preventing Double-Pricing:** If sequenced correctly—through the technical dialogue established in the India-EU Free Trade Agreement (FTA) Annex 14-A—IBAM ensures that Indian firms do not pay twice. They pay a domestic price, which is then recognized as an offset at the EU border, keeping the *net* carbon cost to the exporter unchanged while shifting the *flow* of revenue from Brussels to New Delhi.

Opportunities and Challenges

While the IBAM strategy is theoretically sound, its implementation faces significant institutional hurdles:

1. **Verification and Transparency:** To be accepted by the EU, India's carbon pricing must be "verified, reported, and measurable." The Bureau of Energy Efficiency (BEE) and the CCTS framework must achieve global credibility to avoid charges of "hiding" subsidies or opaque accounting.
2. **WTO Compatibility:** IBAM must be carefully designed to align with **GATT Article III** (National Treatment). It cannot be a discriminatory tariff disguised as a climate measure; it must be a bona fide environmental regulation applicable to both domestic consumption and exports.
3. **The "Rule-Maker" vs. "Rule-Taker" Dynamic:** Proactive diplomacy via the FTA's technical committees is essential. India must ensure that the IBAM design is recognized *in advance* by the European Commission, converting a reactive posture into a negotiated, rule-making arrangement.

Conclusion: From Defense to Strategic Sovereignty

The transition from a low-carbon manufacturing base to a green-industrial power is inevitable. India's strategy should not be to oppose the global movement toward carbon pricing, but to capture its benefits. IBAM represents a sophisticated policy evolution: it transforms a potential trade loss into a national investment vehicle.

By formalizing the link between India's domestic CCTS and the EU's CBAM requirements, India can maintain its export competitiveness while simultaneously financing its **net-zero ambitions**. Success, however, hinges on the quality of India's administrative architecture—specifically, whether it can build a robust, audited system that the international community recognizes as a legitimate carbon-pricing mechanism.