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Army unveils new uniform policy, phases out colonial-era practices

PCS
Saurabh Trivedi
NEW DELHI

In a significant move aimed at modernising military traditions and reinforcing an indigenous identity, the Indian Army has introduced revised dress regulations that progressively remove residual colonial-era practices, terminology, and non-essential accoutrements.

The new policy, elaborated in the Army Uniforms-2026 Pamphlet, reflects the Army's effort to align its dress regulations with contemporary Indian values while maintaining the service's rich traditions and professional standards.

A notable feature of the revised regulations is the



The changes are aimed at enhancing uniformity, practicality and ease of implementation across the force. SPECIAL ARRANGEMENT

introduction of a common Uniform Numbering Scheme for the Army, Navy, and the Air Force. The initiative is intended to improve clarity, interoperability, and synergy among the three services while simplifying references to various dress categories.

The Army has retained four broad categories of uniforms — Ceremonial Dress, Working Dress, Mess Dress, and Combat Dress. Unique dress numbers have been assigned to each uniform for ease of identification and administration.

Reflecting India's evolving national identity and contemporary ethos, the latest edition of the Army Uniforms Pamphlet introduces several key changes aimed at shedding remnants of colonial-era practices. Among the notable reforms are the inclusion of the traditional Bandi Jacket as part of formal civil attire, removal of the pouch belt from Mess Dress Nos. 5 and 6, making sword carriage by the Reviewing Officer optional, and discontinuing outdated terminology such as "Royal".

The Army has announced the phased withdrawal of legacy patterns such as Dress No. 3A, which will be discontinued by June 30, 2029.

15J6. Army unveils new uniform policy, phases out colonial-era practices

सेना ने नई वर्दी नीति लागू की, औपनिवेशिक काल की प्रथाओं को चरणबद्ध रूप से समाप्त किया

- In a significant move aimed at modernising military traditions and reinforcing an indigenous identity, the Indian Army has introduced revised dress regulations that progressively remove residual colonial-era practices, terminology, and non-essential accoutrements.

सैन्य परम्पराओं के आधुनिकीकरण और स्वदेशी पहचान को सुदृढ़ करने की दिशा में एक महत्वपूर्ण कदम उठाते हुए भारतीय सेना ने संशोधित वेशभूषा नियम लागू किए हैं, जिनका उद्देश्य औपनिवेशिक काल की शेष प्रथाओं, शब्दावली और अनावश्यक सजावटी तत्वों को क्रमिक रूप से समाप्त करना है।

- The new policy, elaborated in the **Army Uniforms-2026 Pamphlet**, reflects the Army's effort to align its dress regulations with contemporary Indian values while maintaining the service's rich traditions and professional standards.

सेना वर्दी-2026 पुस्तिका में विस्तृत नई नीति सेना के उस प्रयास को दर्शाती है जिसके माध्यम से वर्दी संबंधी नियमों को समकालीन भारतीय मूल्यों के अनुरूप बनाया जा रहा है, जबकि सेवा की समृद्ध परम्पराओं और व्यावसायिक मानकों को भी बनाए रखा जा रहा है।

- A notable feature of the revised regulations is the introduction of a common **Uniform Numbering Scheme** for the Army, Navy, and the Air Force.

संशोधित नियमों की एक प्रमुख विशेषता सेना, नौसेना और वायु सेना के लिए एक समान वर्दी क्रमांकन प्रणाली का प्रारम्भ है।

- The initiative is intended to improve clarity, interoperability, and synergy among the three services while simplifying references to various dress categories.

इस पहल का उद्देश्य तीनों सेनाओं के बीच स्पष्टता, पारस्परिक समन्वय और कार्यगत सामंजस्य को बढ़ाना तथा विभिन्न वर्दी श्रेणियों के संदर्भ को सरल बनाना है।

- The Army has retained four broad categories of uniforms — **Ceremonial Dress, Working Dress, Mess Dress, and Combat Dress**.

सेना ने वर्दियों की चार प्रमुख श्रेणियाँ यथावत रखी हैं — औपचारिक वेशभूषा, कार्य वेशभूषा, मेस वेशभूषा तथा युद्धक वेशभूषा।

- Unique dress numbers have been assigned to each uniform for ease of identification and administration.
पहचान और प्रशासनिक सुविधा के लिए प्रत्येक वर्दी को विशिष्ट क्रमांक प्रदान किए गए हैं।
- Reflecting India's evolving national identity and contemporary ethos, the latest edition of the Army Uniforms Pamphlet introduces several key changes aimed at shedding remnants of colonial-era practices.
भारत की विकसित होती राष्ट्रीय पहचान और समकालीन दृष्टिकोण को प्रतिबिंबित करते हुए सेना वर्दी पुस्तिका के नवीनतम संस्करण में औपनिवेशिक युग की शेष परम्पराओं को समाप्त करने के उद्देश्य से कई महत्वपूर्ण परिवर्तन किए गए हैं।
- Among the notable reforms are the inclusion of the traditional **Bandi Jacket** as part of formal civil attire, removal of the **pouch belt** from Mess Dress Nos. 5 and 6, making sword carriage by the **Reviewing Officer** optional, and discontinuing outdated terminology such as "**Royal**".
प्रमुख सुधारों में पारंपरिक बंदी जैकेट को औपचारिक नागरिक परिधान का हिस्सा बनाना, मेस वेशभूषा संख्या 5 और 6 से पाउच बेल्ट को हटाना, निरीक्षण अधिकारी द्वारा तलवार धारण करना वैकल्पिक बनाना तथा "रॉयल" जैसे अप्रचलित शब्दों का प्रयोग समाप्त करना शामिल है।
- The Army has announced the phased withdrawal of legacy patterns such as **Dress No. 3A**, which will be discontinued by **June 30, 2029**.

सेना ने वेशभूषा संख्या 3ए जैसे पुरानी शैली के पैटर्न को चरणबद्ध रूप से समाप्त करने की घोषणा की है, जिसे 30 जून 2029 तक पूर्णतः बंद कर दिया जाएगा।



INS Sharda concludes visit to Colombo, boosts bilateral ties

Indian Naval Ship (INS) Sharda departed Colombo on June 13 after a successful port call that further strengthened maritime cooperation and friendship between India and Sri Lanka. The visit featured a range of professional, training and sporting engagements between the two maritime forces. The Indian Navy informed that as part of capacity-building initiatives, Sri Lankan Navy personnel received training in small arms handling, basic firefighting, first-aid and rescue procedures aboard the ship. The engagements were aimed at enhancing operational preparedness and fostering greater interoperability between the two forces.

15J6. INS Sharda concludes visit to Colombo, boosts bilateral ties

आईएनएस शारदा ने कोलंबो की यात्रा पूर्ण की, द्विपक्षीय संबंधों को मिला बल

- Indian Naval Ship (INS) Sharda departed Colombo on June 13 after a successful port call that further strengthened maritime cooperation and friendship between India and Sri Lanka.

भारतीय नौसैनिक पोत शारदा ने 13 जून को कोलंबो से अपनी सफल बंदरगाह यात्रा पूर्ण करने के बाद प्रस्थान किया, जिससे भारत और श्रीलंका के बीच समुद्री सहयोग और मैत्री संबंध और अधिक सुदृढ़ हुए।

- The Indian Navy informed that as part of capacity-building initiatives, Sri Lankan Navy personnel received training in **small arms handling, basic firefighting, first-aid and rescue procedures** aboard the ship.

भारतीय नौसेना ने बताया कि क्षमता निर्माण पहलों के अंतर्गत श्रीलंकाई नौसेना के कर्मियों को पोत पर छोटे हथियारों के संचालन, आधारभूत अग्निशमन, प्राथमिक

उपचार तथा बचाव प्रक्रियाओं का प्रशिक्षण प्रदान किया गया।

GS Paper 1: History	15 June 2026
TOPICS COVERED	
15J6	The hidden history of the Thai-Bharat connection थाईलैंड-भारत संबंधों का छिपा हुआ इतिहास



The hidden history of the Thai-Bharat connection

SS I- History

Today, June 15, marks the 84th anniversary of a historic meeting we have allowed ourselves to forget, which led to the birth of the Indian National Army (INA). I learned about it on a visit to the Thai-Bharat Cultural Lodge (TBCL) in Bangkok, discovering a remarkable, overlooked chapter of history that reveals Thailand's vital role as a neutral, strategic beacon for Indian revolutionaries seeking refuge from British colonial rule. From its humble beginnings as a hub for cultural and intellectual exchange, the organisation evolved into a cornerstone of the Indian independence movement, providing the essential infrastructure for the formation of the INA.

From culture to cause

The roots of this alliance were sown in 1927 during a historic visit to Siam, now Thailand, by Gurudev Rabindranath Tagore, who met with King Prajadhipok (Rama VII). Their dialogue centred on the deep, enduring connections between India and Thailand – ancient ties rooted in religion, philosophy, and shared cultural narratives such as the Ramayana and the Thai Ramakien. Inspired by his vision, Prafulla Kumar Sen, a Bengali scholar who became known as Swami Satyananda Puri, arrived in Bangkok in 1932.

A brilliant intellectual who had taught at the University of Calcutta and Visva-Bharati University, the Swami immersed himself in the Thai language and culture, mastering it in six months and becoming an esteemed professor at Chulalongkorn University. In 1939, he established the Dharam Ashram, a sanctuary for spiritual and cultural exchange, which served as a focal point for the growing Indian diaspora in Bangkok.

In December 1940, this ashram was transformed into the TBCL. A defining moment in the organisation's history occurred shortly after, when the Indian Tricolour was hoisted at the Lodge – a bold, defiant gesture that signalled the arrival of the Indian independence movement in Thailand and drew strong protests from the British Ambassador. As the Second World War descended upon Southeast Asia, the TBCL shifted from a cultural institution to an active political base. By late 1941, as Japanese forces advanced, the Lodge became a nexus for Indian nationalists and independence activists.

One of the most instrumental figures in this era was Sardar Giani Pritam Singh, a Sikh missionary and Ghadar Party veteran who had been preaching revolutionary ideals among the Indian diaspora in Bangkok. Operating from gurdwaras and working closely with the TBCL, Pritam Singh established vital covert links with Major Iwachi Fujiwara, the chief of the Japanese intelligence



Shashi Tharoor

Fourth-term Member of Parliament, Congress party (Lok Sabha) for Thiruvananthapuram, the Chairman of the Parliamentary Standing Committee on External Affairs and the Sahitya Akademi Award-winning author of 29 books, including, most recently, 'The Sage Who Reimagined Hinduism: The Life, Lessons and Legacy of Sree Narayana Guru'

An enduring Thailand-India bond that played a pivotal role in India's independence movement

unit, F-Kikan. In December 1941, the Indian National Council (INC) was founded at the Silpakorn Theatre in Bangkok by a group of nationalists associated with the TBCL, with Swami Satyananda Puri as its president and Deb Nath Das as its secretary. This organisation played a crucial role in coordinating the efforts of the Indian independence movement, bridging the gap between civilian aspirations and the military mobilisation led by the Indian Independence League (IIL).

Toward organised resistance

The cooperation between these groups culminated in the historic Bangkok Conference, which took place between June 15 and June 23, 1942, at the Silpakorn Theatre. This gathering represented a turning point in the struggle, bringing together more than a hundred representatives of Indian communities and freedom fighters from across Southeast Asia, including Burma, Malaya, and Singapore.

The conference served three primary functions. It brought together diverse nationalist factions under a coherent political and military framework, effectively establishing the IIL as the central body for Indians residing outside of India. It adopted a comprehensive 34-point resolution, which provided the official blueprint for the INA, stipulating that it would be composed of volunteers and former prisoners of war and supervised by the IIL rather than the Japanese military. The delegates urged Japan to formally recognise India as an independent nation and acknowledge the IIL as its sole legitimate representative, reflecting a strategic effort to ensure that the independence movement maintained its own agency despite its reliance on Japanese support.

The struggle began with a tragedy that shook the movement to its core. In March 1942, a plane carrying the Swami and the Sardar, who were en route to a high-level meeting in Tokyo to secure further commitments for the movement, crashed, resulting in their deaths. Their loss was a devastating blow, yet their sacrifice served to deepen the resolve of those who remained and who conferred in June with the Japanese to set up the INA. Netaji Subhas Chandra Bose's arrival in 1943 provided the centralised, charismatic, and revolutionary military leadership needed. He took command of the IIL and the INA, shifting the focus from decentralised regional council discussions toward a unified, disciplined military and political front designed to launch an armed struggle for Indian independence.

While the TBCL's roots were in intellectual and cultural exchange, Netaji's arrival accelerated the transition to a mass-mobilisation effort, drawing in thousands of civilian volunteers and former

prisoners of war who were inspired by his call for "Total Mobilization". Under Bose, the collaboration with the Japanese military was elevated to a high-stakes diplomatic partnership aimed at securing full recognition for the Provisional Government of Free India.

Despite the shift toward a more militarised and centralised command under Netaji, the TBCL continued to serve as a vital institutional bridge. It provided the necessary civilian and cultural cover for many activities that supported the broader independence movement. As the war progressed, the TBCL remained a steadfast centre for the Indian diaspora, even as the focus of the struggle moved to the front lines of the INA's march toward the Indian border. The Lodge maintained its role as a sanctuary for those committed to the ideals of independence, preserving the vision that had been articulated during the early days of Swami Satyananda Puri's tenure – that India's freedom was inextricably linked to the broader cause of Asian liberation from colonial rule.

Keeping history alive

Following the conclusion of the war in 1945, the TBCL was banned by Allied forces and its leaders imprisoned. Even after the conclusion of the war and the dissolution of the INA, the legacy of this era persisted. Thanks to the tireless efforts of figures such as Pandit Raghunath Sharma, the Lodge was successfully re-established in 1946. The Lodge's survival serves as a testament to the fact that the political and military efforts of the Bose era were supported by the deep-rooted cultural and social networks fostered in the years prior. These networks allowed the movement to survive the vacuum of leadership following the war and continue to inform the historic relationship between India and Thailand.

Today, the TBCL remains the only surviving institution from this era, functioning as a living archive, housing a precious collection of rare texts, historical photographs, and documents that provide an intimate window into the lives of the Indian families who contributed to the fight for freedom.

During my visit I was treated to a passionate tour of the premises by Pandeyji, a descendant of Indian rajpurohiths who had migrated to Thailand three centuries ago. As he evoked the stories behind each grainy photograph and historic document, it became clear that the TBCL stands not just as a library or a museum, but as a monument to the enduring friendship between the people of Thailand and the Indian diaspora – a symbol of the shared courage and determination that defined one of the most critical, yet often forgotten, chapters of the global anti-colonial movement.

15J6. The hidden history of the Thai-Bharat connection

थाईलैंड-भारत संबंधों का छिपा हुआ इतिहास

- Today, June 15, marks the 84th anniversary of a historic meeting we have allowed ourselves to forget, which led to the birth of the **Indian National Army (INA)**. आज, 15 जून, उस ऐतिहासिक बैठक की 84वीं वर्षगांठ है जिसे हम लगभग भुला चुके हैं, जबकि उसी बैठक ने आज़ाद हिन्द फौज के जन्म का मार्ग प्रशस्त किया था।
- I learned about it on a visit to the **Thai-Bharat Cultural Lodge (TBCL) in Bangkok**, discovering a remarkable, overlooked chapter of history that reveals Thailand's vital role as a neutral, strategic beacon for Indian revolutionaries seeking refuge from British colonial rule. मुझे इसके बारे में बैंकॉक स्थित थाई-भारत सांस्कृतिक लॉज की यात्रा के दौरान जानकारी मिली, जहाँ इतिहास के एक उल्लेखनीय किन्तु उपेक्षित अध्याय का पता चला, जो ब्रिटिश औपनिवेशिक शासन से शरण लेने वाले भारतीय क्रांतिकारियों के लिए थाईलैंड की महत्वपूर्ण एवं रणनीतिक भूमिका को उजागर करता है।

From culture to cause

संस्कृति से स्वतंत्रता संघर्ष तक

- The roots of this alliance were sown in 1927 during a historic visit to **Siam, now Thailand**, by **Gurudev Rabindranath Tagore, who met with King Prajadhipok (Rama VII)**.

इस सहयोग की नींव 1927 में उस समय पड़ी जब गुरुदेव रवीन्द्रनाथ ठाकुर ने तत्कालीन सियाम (वर्तमान थाईलैंड) की ऐतिहासिक यात्रा की और वहाँ राजा प्रजाधिपोक (राम सप्तम) से भेंट की।

- Inspired by his vision, **Prafulla Kumar Sen, a Bengali scholar who became known as Swami Satyananda Puri, arrived in Bangkok in 1932.**
उनकी प्रेरणा से बंगाल के विद्वान प्रफुल्ल कुमार सेन, जो बाद में स्वामी सत्यानन्द पुरी के नाम से प्रसिद्ध हुए, 1932 में बैंकॉक पहुँचे।
- In December 1940, this ashram was transformed into the TBCL.
दिसम्बर 1940 में इस आश्रम को थाई-भारत सांस्कृतिक लॉज में परिवर्तित कर दिया गया।
- One of the most instrumental figures in this era was Sardar Giani Pritam Singh, a Sikh missionary and Ghadar Party veteran who had been preaching revolutionary ideals among the Indian diaspora in Bangkok.
इस काल के सबसे महत्वपूर्ण व्यक्तियों में से एक थे सरदार ज्ञानी प्रीतम सिंह, जो एक सिख धर्मप्रचारक तथा ग़दर पार्टी के अनुभवी सदस्य थे और बैंकॉक में भारतीय प्रवासी समुदाय के बीच क्रांतिकारी विचारों का प्रचार कर रहे थे।
- In December 1941, the Indian National Council (INC) was founded at the Silpakorn Theatre in Bangkok by a group of nationalists associated with the TBCL, with Swami Satyananda Puri as its president and Debnath Das as its secretary.
दिसम्बर 1941 में बैंकॉक के सिल्पाकॉर्न थिएटर में लॉज से जुड़े राष्ट्रवादियों के एक समूह ने भारतीय राष्ट्रीय परिषद की स्थापना की, जिसके अध्यक्ष स्वामी सत्यानन्द पुरी और सचिव देबनाथ दास बनाए गए।
- This organisation played a crucial role in coordinating the efforts of the Indian independence movement, bridging the gap between civilian aspirations and the military mobilisation led by the Indian Independence League (IIL).
इस संगठन ने भारतीय स्वतंत्रता आंदोलन के प्रयासों के समन्वय में अत्यंत महत्वपूर्ण भूमिका निभाई तथा नागरिक आकांक्षाओं और भारतीय स्वतंत्रता लीग द्वारा संचालित सैन्य संगठन के बीच सेतु का कार्य किया।

Toward organised resistance संगठित प्रतिरोध की ओर

- The cooperation between these groups culminated in the historic **Bangkok Conference**, which took place between **June 15 and June 23, 1942**, at the **Silpakorn Theatre**.
इन समूहों के बीच सहयोग का चरम रूप ऐतिहासिक **बैंकॉक सम्मेलन** के रूप में सामने आया, जो 15 जून से 23 जून 1942 के बीच सिल्पाकॉर्न थिएटर में आयोजित हुआ।
- This gathering represented a turning point in the struggle, bringing together more than a hundred representatives of Indian communities and freedom fighters from across Southeast Asia, including Burma, Malaya, and Singapore.
यह सम्मेलन स्वतंत्रता संघर्ष में एक निर्णायक मोड़ सिद्ध हुआ, जिसमें बर्मा, मलाया और सिंगापुर सहित पूरे दक्षिण-पूर्व एशिया से भारतीय समुदायों के एक सौ से अधिक प्रतिनिधि तथा स्वतंत्रता सेनानी एकत्र हुए।
- The conference served three primary functions.
इस सम्मेलन ने तीन प्रमुख उद्देश्यों की पूर्ति की।
- It brought together diverse nationalist factions under a coherent political and military framework, effectively establishing the **Indian Independence League** as the central body for Indians residing outside of India.
इसने विभिन्न राष्ट्रवादी समूहों को एक संगठित राजनीतिक और सैन्य ढाँचे के अंतर्गत एकजुट किया तथा प्रभावी रूप से भारतीय स्वतंत्रता लीग को भारत के बाहर रहने वाले भारतीयों के केंद्रीय संगठन के रूप में स्थापित किया।
- It adopted a comprehensive **34-point resolution**, which provided the official blueprint for the **Indian National Army**, stipulating that it would be composed of volunteers and former prisoners of war and supervised by the Indian Independence League rather than the Japanese military.

सम्मेलन में एक व्यापक 34-सूत्रीय प्रस्ताव पारित किया गया, जिसने आज़ाद हिन्द फ़ौज के लिए आधिकारिक रूपरेखा प्रदान की। इसमें निर्धारित किया गया कि सेना स्वयंसेवकों और पूर्व युद्धबंदियों से बनेगी तथा उसका संचालन जापानी सेना के बजाय भारतीय स्वतंत्रता लीग के अधीन होगा।

- The delegates urged Japan to formally recognise India as an independent nation and acknowledge the Indian Independence League as its sole legitimate representative, reflecting a strategic effort to ensure that the independence movement maintained its own agency despite its reliance on Japanese support.

प्रतिनिधियों ने जापान से भारत को एक स्वतंत्र राष्ट्र के रूप में औपचारिक मान्यता देने तथा भारतीय स्वतंत्रता लीग को उसका एकमात्र वैध प्रतिनिधि स्वीकार करने का आग्रह किया। यह इस बात को सुनिश्चित करने का रणनीतिक प्रयास था कि जापानी समर्थन पर निर्भरता के बावजूद स्वतंत्रता आंदोलन अपनी स्वतंत्र पहचान और निर्णय क्षमता बनाए रखे।

- In March 1942, a plane carrying the Swami and the Sardar, who were en route to a high-level meeting in Tokyo to secure further commitments for the movement, crashed, resulting in their deaths.

मार्च 1942 में स्वामी और सरदार को लेकर टोक्यो जा रहा एक विमान दुर्घटनाग्रस्त हो गया। वे आंदोलन के लिए अतिरिक्त समर्थन सुनिश्चित करने हेतु एक उच्चस्तरीय बैठक में भाग लेने जा रहे थे। इस दुर्घटना में दोनों की मृत्यु हो गई।

- Netaji Subhas Chandra Bose's arrival in 1943 provided the centralised, charismatic, and revolutionary military leadership needed.

नेताजी सुभाष चन्द्र बोस के 1943 में आगमन ने आंदोलन को वह केंद्रीकृत, प्रेरणादायी और क्रांतिकारी सैन्य नेतृत्व प्रदान किया जिसकी आवश्यकता थी।

- He took command of the Indian Independence League and the Indian National Army, shifting the focus from decentralised regional council discussions toward a unified, disciplined military and political front designed to launch an armed struggle for Indian independence.

उन्होंने भारतीय स्वतंत्रता लीग और आज़ाद हिन्द फ़ौज का नेतृत्व संभाला तथा क्षेत्रीय स्तर की बिखरी हुई चर्चाओं से ध्यान हटाकर एकीकृत, अनुशासित सैन्य और राजनीतिक मोर्चे के निर्माण पर बल दिया, जिसका उद्देश्य भारतीय स्वतंत्रता के लिए सशस्त्र संघर्ष प्रारम्भ करना था।

GS Paper 1: Society		15 June 2026
TOPICS COVERED		
15J6	Series of gaps कमियों की श्रृंखला	
15J6	The 'seven-point IQ opportunity' for Indian children भारतीय बच्चों के लिए 'सात-अंक आईक्यू अवसर'	



Series of gaps

Distrust of police has led to underreporting of child sexual abuse

Child sexual abuse in India remains persistently under-reported and the state response to it has shown up trenchant systemic inefficiencies. In over 90% of cases, including the recent Sulur case in Coimbatore in which a charge sheet was filed last week, the threat to a child is from within the family's trusted circles. Public imagination often fixates on predatory strangers, which is not conducive to helping families and communities identify a risk in time. Migrant and working-class communities are especially at risk as they are less integrated in local protective social networks. Second, abandoned industrial sites and poorly maintained common land tend to become crime scenes. But despite the 'Safe City' project and the recognition of child-friendly urban development paradigms, urban redesign still focuses on core areas of major metros. The social safety dimensions of urban wetland restoration, like that of the Noyyal river, are often overlooked as well. Next, while POCSCO trials are required to conclude within a year of the special court taking cognisance, POCSCO courts face an 89% pendency rate and conviction rates have historically ranged between 3% and 30%, undermining confidence in the police and judiciary. The Sulur case prompted promises of swift action, but this is only one case; systemic reforms to protect vulnerable children remain elusive. In 2024, the NCRB recorded 69,191 POCSCO cases involving more than 70,000 child victims.

Public distrust discourages residents from reporting suspicions and encourages families fearing police apathy to search for missing children themselves, potentially allowing the perpetrators to hide evidence or flee. Ultimately, when the state fails to deliver due punishment, the people perceive the police to be a bureaucratic hurdle, leaving children more vulnerable. Repeatedly strengthening penalties merely suppresses reporting in most cases where the offender is familiar. Even the 2018 and 2019 amendments to the POCSCO Act reacted to public outrage rather than considered evidence and focused on harsher punishments. Both comprehensive longitudinal data on recidivism and analyses of whether harsher legal penalties are effective deterrents remain scarce. While data collection has improved, the Ministry of Women and Child Development has noted that qualitative analyses of acquittals rarely inform policy changes. Finally, survivors and families face secondary victimisation from insensitive administrative responses and media reports. Together with the lack of policing informed by trauma response and stigma, true safety continues to evade thousands of children leaving them vulnerable to a cycle of unreported and unpunished violence.

15J6. Series of gaps

कमियों की श्रृंखला

- Distrust of police has led to underreporting of child sexual abuse.

पुलिस के प्रति अविश्वास के कारण बाल यौन शोषण के मामलों की कम रिपोर्टिंग हुई है।

- In over 90% of cases, including the recent Sulur case in Coimbatore in which a charge sheet was filed last week, the threat to a child is from within the family's trusted circles.

90% से अधिक मामलों में, जिनमें कोयंबटूर का हालिया सुलूर मामला भी शामिल है जिसमें पिछले सप्ताह आरोप-पत्र दाखिल किया गया, बच्चों के लिए खतरा परिवार के विश्वसनीय परिचितों के दायरे से ही उत्पन्न होता है।

- In 2024, the National Crime Records Bureau recorded 69,191 POCSCO cases involving more than 70,000 child victims.

2024 में राष्ट्रीय अपराध रिकॉर्ड ब्यूरो ने 69,191 पॉक्सो मामलों को दर्ज किया, जिनमें 70,000 से अधिक बाल पीड़ित शामिल थे।

- Even the 2018 and 2019 amendments to the POCSCO Act reacted to public outrage rather than considered evidence and focused on harsher punishments.

यहाँ तक कि 2018 और 2019 के संशोधन भी मुख्यतः जनक्रोध की प्रतिक्रिया थे, न कि साक्ष्य-आधारित विचार-विमर्श का परिणाम, और उनका प्रमुख ध्यान कठोर दंडों पर केंद्रित रहा।

The 'seven-point IQ opportunity' for Indian children

CS IAS Society

What if we could increase the IQ of India's future generations by seven points with a pivot in the understanding of early childhood development under the Anganwadi system?

For decades, India's early childhood agenda has focused on ensuring that children survive early childhood, reducing under-five mortality from 43 in 2012 to 32 in 2020 (UNICEF and World Bank data) with sufficient inputs invested toward their health, nutrition, immunisation and sanitation conditions. The Anganwadi system reflects these priorities at scale: approximately eight crore children (ages 0-6 years) receive supplementary nutrition, growth monitoring and health services, alongside counselling and home visits for their parents. However, body and brain development in the early years do not proceed on separate tracks.

Early childhood development is an ecological process in which nutrition, health, and early learning interact dynamically with each other through the body, brain, and environment. The developing brain is highly energy-intensive, consuming nearly one-fifth of the body's energy at rest. In the first year alone, grey matter volume increases by 149% and the cerebellum by 240% as millions of synapses form in regions associated with movement, language, and planning.

Middle-income evidence is clear

Paediatric research in Jamaica in the 1980s provided hard academic evidence to an idea that many cultures already understood. Researchers working with stunted children found that nutritional supplementation improved physical health alone, but adding regular psychosocial stimulation (love-talk-play and responsive interaction) resulted in stronger cognitive gains.

Similar findings emerged in India from a birth cohort study in Vellore (250 children followed from birth to age 9) where children stunted early in life performed worst on later cognitive assessments, but those who recovered physically also showed better cognitive outcomes.



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Anganwadis can help boost cognitive development through holistic early intervention

International research on enteric dysfunction and poor sanitation has shown that nutritional inputs are mediated by the child's environment. A child's body may receive food, but infection, inflammation, toxic exposure and deprivation of stimulation can adversely influence this very nutrition. In studies in Vellore, children with iron deficiency or high lead exposure in early life, score lower on developmental and cognitive assessments, even when their height and weight appear normal. It is not simply what children eat that matters, but whether their bodies can absorb and use it. Yet, numbers on a growth chart never tell the full story. The quality of the home environment – how much they are talked to, read to, played with and emotionally supported, keeps emerging as a stronger predictor of cognitive outcomes than diet alone.

Most encouragingly, exposure to structured preschool and early stimulation has the potential to transform a generation. Children in the Vellore cohort who attend preschool regularly for 18 to 24 months, including in Anganwadi centres, are scoring seven IQ units higher on cognitive tests than those not attending preschool, even after accounting for poverty, maternal education and early stunting. In a similar Brazilian birth cohort, children who received structured preschool had higher cognition scores by eight units at age five. This is powerful evidence that stimulation and nutrition have strong, independent effects and amplify each other when both are fulfilled.

A role for Anganwadis

Indian policymakers are responding to new evidence quickly. The Anganwadi system has started to incorporate this broader understanding of holistic early childhood development into its core design. This shift is most visible in the rollout of national frameworks such as Aadharshila and Navchetana and programmes such as Poshan Bhi Padhai Bhi. They are critical inputs in redefining neighbourhood Anganwadis as vibrant early childhood education centres that nourish both mind and body. Aadharshila

strengthens play-based preschool education within centres, while Navchetana extends early stimulation into the home, equipping caregivers with simple, science-based ways to support development through everyday interactions.

In clinical practice, we offer these frameworks to parents everyday, helping to turn routine moments into opportunities for learning. We encourage the integration of Navchetana's "loving, talking and playing" into daily life while feeding, cooking or playing with children. The home lays the foundation of early language, cognition and socio-emotional skills in the first three years, and Anganwadis deepen it through structured play-based activities, storytelling and peer learning from ages three to six.

Systemic community mobilisation initiatives, such as Poshan Pakhwada conducted in April 2026 by the Ministry of Women and Child Development focus on promoting early stimulation for brain development, play-based education in the early years, and the role of parents and communities in reducing screen exposure and strengthening engagement with Anganwadis. The campaign signals that early childhood development is not confined to centres or programmes, but depends on what happens within households and neighbourhoods.

Building futures

An "ecological" approach uplifts families as much as it strengthens children. Reliable childcare gives mothers the time, the confidence and the opportunity to work, study or contribute economically. In Vellore, we have seen women trained as childcare workers gain both dignity and livelihood, creating a virtuous circle of care. When the kitchen, classroom and crèche align, children flourish, women work and communities thrive.

For a Viksit Bharat, progress cannot rest on calories alone. The physical and interactive learning and playing environments in homes, Anganwadis and communities must be as enriching as the meals they receive.

15J6. The 'seven-point IQ opportunity' for Indian children

भारतीय बच्चों के लिए 'सात-अंक आईक्यू अवसर'

- For decades, India's early childhood agenda has focused on ensuring that children survive early childhood, reducing under-five mortality from 43 in 2012 to 32 in 2020 with sufficient inputs invested toward their health, nutrition, immunisation and sanitation conditions. दशकों से भारत की प्रारम्भिक बाल्यावस्था संबंधी नीति का प्रमुख उद्देश्य बच्चों के जीवन की रक्षा करना रहा है, जिसके परिणामस्वरूप पाँच वर्ष से कम आयु के बच्चों की मृत्यु दर 2012 में 43 से घटकर 2020 में 32 हो गई है। इसके लिए स्वास्थ्य, पोषण, टीकाकरण और स्वच्छता पर पर्याप्त निवेश किया गया।
- The **Anganwadi system** reflects these priorities at scale: approximately **eight crore children (ages 0-6 years)** receive supplementary nutrition, growth monitoring and health services, alongside counselling and home visits for their parents. आंगनवाड़ी प्रणाली इन प्राथमिकताओं को व्यापक स्तर पर लागू करती है। इसके अंतर्गत लगभग आठ करोड़ बच्चों (0 से 6 वर्ष आयु वर्ग) को पूरक पोषण, वृद्धि निगरानी और स्वास्थ्य सेवाएँ प्रदान की जाती हैं, साथ ही उनके माता-पिता को परामर्श और गृह भ्रमण सेवाएँ भी उपलब्ध कराई जाती हैं।
- In the first year alone, **grey matter volume** increases by **149%** and the **cerebellum** by **240%** as millions of synapses form in regions associated with movement, language, and planning. जीवन के पहले वर्ष में ही **धूसर पदार्थ की मात्रा** में **149%** तथा **अनुमस्तिष्क** में **240%** की वृद्धि होती है, क्योंकि इस अवधि में गति, भाषा और योजना निर्माण से संबंधित क्षेत्रों में लाखों तंत्रिका-संबंध विकसित होते हैं।
- Researchers working with **stunted children** found that nutritional supplementation improved physical health alone, but adding regular psychosocial stimulation (love-talk-play and responsive interaction) resulted in stronger cognitive gains. अविकसित वृद्धि वाले बच्चों पर कार्य करने वाले शोधकर्ताओं ने पाया कि केवल पोषण अनुपूरण से शारीरिक



स्वास्थ्य में सुधार हुआ, किन्तु नियमित मनोसामाजिक प्रोत्साहन, जैसे प्रेम, संवाद, खेल और संवेदनशील सहभागिता जोड़ने से संज्ञानात्मक विकास में अधिक सुधार हुआ।

- Similar findings emerged in India from a **birth cohort study in Vellore** (250 children followed from birth to age 9) where **children stunted early in life performed worst on later cognitive assessments, but those who recovered physically also showed better cognitive outcomes**. भारत में **वेल्लोर जन्म-समूह अध्ययन** से भी इसी प्रकार के निष्कर्ष प्राप्त हुए, जिसमें जन्म से नौ वर्ष तक 250 बच्चों का अध्ययन किया गया। जिन बच्चों की प्रारम्भिक अवस्था में वृद्धि बाधित रही, उनका बाद के संज्ञानात्मक परीक्षणों में प्रदर्शन सबसे कमजोर रहा, जबकि शारीरिक रूप से स्वस्थ होने वाले बच्चों ने बेहतर संज्ञानात्मक परिणाम प्रदर्शित किए।
- International research on **enteric dysfunction and poor sanitation** has shown that nutritional inputs are mediated by the child's environment.
आंत्र विकारों और खराब स्वच्छता पर किए गए अंतरराष्ट्रीय अध्ययनों ने दर्शाया है कि पोषण का प्रभाव बच्चे के परिवेश द्वारा प्रभावित होता है।
- **A child's body may receive food, but infection, inflammation, toxic exposure and deprivation of stimulation can adversely influence this very nutrition.**
किसी बच्चे को भोजन प्राप्त हो सकता है, किन्तु संक्रमण, सूजन, विषैले तत्वों का संपर्क और प्रोत्साहन की कमी उसी पोषण के प्रभाव को नकारात्मक रूप से प्रभावित कर सकते हैं।
- In studies in **Vellore**, **children with iron deficiency or high lead exposure in early life, score lower on developmental and cognitive assessments, even when their height and weight appear normal.**
वेल्लोर में किए गए अध्ययनों में पाया गया कि प्रारम्भिक जीवन में लौह तत्व की कमी या सीसे के अधिक संपर्क वाले बच्चों का विकासात्मक और संज्ञानात्मक परीक्षणों में प्रदर्शन कम रहा, भले ही उनकी लंबाई और वजन सामान्य प्रतीत होते हों।
- The **quality of the home environment — how much they are talked to, read to, played with and emotionally supported, keeps emerging as a stronger predictor of cognitive outcomes than diet alone.**
घरेलू वातावरण की गुणवत्ता — बच्चों से कितना संवाद किया जाता है, उन्हें कितना पढ़कर सुनाया जाता है, उनके साथ कितना खेला जाता है और उन्हें कितना भावनात्मक सहयोग मिलता है — केवल आहार की तुलना में संज्ञानात्मक परिणामों का अधिक सशक्त निर्धारक बनकर उभरती है।
- Most encouragingly, **exposure to structured preschool and early stimulation has the potential to transform a generation.**
सबसे उत्साहवर्धक तथ्य यह है कि **संरचित पूर्व-प्राथमिक शिक्षा और प्रारम्भिक प्रोत्साहन में एक पूरी पीढ़ी को परिवर्तित करने की क्षमता है।**
- Children in the **Vellore cohort** who attend preschool regularly for **18 to 24 months**, including in **Anganwadi centres**, are **scoring seven IQ units higher on cognitive tests than those not attending preschool, even after accounting for poverty, maternal education and early stunting.**
वेल्लोर अध्ययन समूह के वे बच्चे जिन्होंने 18 से 24 माह तक नियमित रूप से पूर्व-प्राथमिक शिक्षा प्राप्त की, जिनमें आंगनवाड़ी केन्द्रों में जाने वाले बच्चे भी शामिल हैं, वे संज्ञानात्मक परीक्षणों में पूर्व-प्राथमिक शिक्षा से वंचित बच्चों की तुलना में सात बौद्धिक अंक अधिक प्राप्त कर रहे हैं। यह अंतर गरीबी, मातृ शिक्षा और प्रारम्भिक वृद्धि अवरोध जैसे कारकों को ध्यान में रखने के बाद भी बना रहता है।
- The **Anganwadi system** has started to incorporate this broader understanding of holistic early childhood development into its core design.
आंगनवाड़ी प्रणाली ने समग्र प्रारम्भिक बाल्यावस्था विकास की इस व्यापक समझ को अपने मूल ढाँचे में सम्मिलित करना प्रारम्भ कर दिया है।
- **This shift is most visible in the rollout of national frameworks such as Aadharshila and Navchetana and programmes such as Poshan Bhi Padhai Bhi.**
यह परिवर्तन **आधारशिला, नवचेतना तथा पोषण भी पढ़ाई भी** जैसे राष्ट्रीय ढाँचों और कार्यक्रमों के क्रियान्वयन में सबसे स्पष्ट रूप से दिखाई देता है।



- They are critical inputs in redefining neighbourhood Anganwadis as vibrant early childhood education centres that nourish both mind and body.
ये पहले स्थानीय आंगनवाड़ियों को ऐसे सशक्त प्रारम्भिक बाल्यावस्था शिक्षा केन्द्रों के रूप में पुनर्परिभाषित करने में महत्वपूर्ण भूमिका निभा रही हैं, जो बच्चों के शरीर और मस्तिष्क दोनों के विकास को पोषित करते हैं।
- **Aadharshila** strengthens play-based preschool education within centres, while **Navchetana** extends early stimulation into the home, equipping caregivers with simple, science-based ways to support development through everyday interactions.
आधारशिला केन्द्रों में खेल-आधारित पूर्व-प्राथमिक शिक्षा को सुदृढ़ बनाती है, जबकि **नवचेतना** प्रारम्भिक प्रोत्साहन को घर तक पहुँचाती है और देखभालकर्ताओं को दैनिक गतिविधियों के माध्यम से विकास को बढ़ावा देने के लिए सरल एवं वैज्ञानिक उपाय उपलब्ध कराती है।
- We encourage the integration of **Navchetana's "loving, talking and playing"** into daily life while feeding, cooking or playing with children.
हम बच्चों को भोजन कराते समय, भोजन बनाते समय अथवा उनके साथ खेलते समय **नवचेतना** के "स्नेह, संवाद और खेल" को दैनिक जीवन का हिस्सा बनाने के लिए प्रोत्साहित करते हैं।
- The home lays the foundation of early language, cognition and socio-emotional skills in the first three years, and Anganwadis deepen it through structured play-based activities, storytelling and peer learning from ages three to six.
जीवन के प्रथम तीन वर्षों में घर प्रारम्भिक भाषा, संज्ञानात्मक क्षमता और सामाजिक-भावनात्मक कौशलों की नींव रखता है, जबकि आंगनवाड़ियाँ तीन से छह वर्ष की आयु के बीच संरचित खेल गतिविधियों, कहानी-कथन और सहपाठी अधिगम के माध्यम से इसे और सुदृढ़ बनाती हैं।
- Systemic community mobilisation initiatives, such as **Poshan Pakhwada** conducted in April 2026 by the **Ministry of Women and Child Development**, focus on promoting early stimulation for brain development, play-based education in the early years, and the role of parents and communities in reducing screen exposure and strengthening engagement with Anganwadis.
महिला एवं बाल विकास मंत्रालय द्वारा अप्रैल 2026 में आयोजित **पोषण पखवाड़ा** जैसे सामुदायिक जन-जागरण कार्यक्रम मस्तिष्क विकास के लिए प्रारम्भिक प्रोत्साहन, प्रारम्भिक वर्षों में खेल-आधारित शिक्षा तथा बच्चों के अत्यधिक स्क्रीन उपयोग को कम करने और आंगनवाड़ियों से जुड़ाव बढ़ाने में अभिभावकों एवं समुदायों की भूमिका पर बल देते हैं।

GS Paper 1: Geography		15 June 2026
TOPICS COVERED		
15J6	3 children and man drown as boat capsizes in Krishna river in A.P. आंध्र प्रदेश में कृष्णा नदी में नाव पलटने से 3 बच्चों और एक व्यक्ति की डूबकर मृत्यु	

3 children and man drown as boat capsizes in Krishna river in A.P.

GS I: Geography

The Hindu Bureau

VIJAYAWADA

Four persons, three of them children, drowned in the Krishna river when the boat in which they were travelling capsized near Konuru village in Palnadu district of Andhra Pradesh on Sunday. Six passengers were rescued.

The deceased were identified as Battula Karthik, 12, Konatha Chaitanya, 26, Gandham Saini, 10, and Gandham Sandhya, 8. The deceased were from the Marrichettupalem and Chilakaluripet areas.

They had come to Konuru to attend a function at the house of K. Gangaiah and went on a boat ride after the function. "Local pe-



People gather to witness rescue operations after a boat capsized in Palnadu district of Andhra Pradesh on Sunday. SPECIAL ARRANGEMENT

ople jumped into the water, rescued six persons, and brought them to the bund," said Ramana, a resident.

No safety material

There were no life jackets or other safety material in

the boat, the villagers alleged.

Meanwhile, Chief Minister N. Chandrababu Naidu, who was away in Singapore, expressed grief over the loss of lives in the boat tragedy.

He announced an ex

gratia of ₹5 lakh each to the next of kin of the dead.

CM orders probe

He also directed the District Collector to disburse the amount immediately, and ordered a full-fledged investigation by a team of Revenue, Police, and Water Resources departments.

The officials informed the Chief Minister that the boat capsized around 2 p.m. after hitting a sandbar in the river.

YSRCP president Y.S. Jagan Mohan Reddy expressed shock over the accident and conveyed his condolences to the bereaved families. He appealed to the government to extend all help to the victims' families.

15J6. 3 children and man drown as boat capsizes in Krishna river in A.P.

आंध्र प्रदेश में कृष्णा नदी में नाव पलटने से 3 बच्चों और एक व्यक्ति की डूबकर मृत्यु

- The **Krishna River** originates near **Mahabaleshwar** in the **Western Ghats** of **Maharashtra**.
- It flows through the states of **Maharashtra, Karnataka, Telangana, and Andhra Pradesh**, and finally empties into the **Bay of Bengal** at **Hamsaladevi** in **Andhra Pradesh**.
- The river stretches about **1400 kilometers**, making it the **third-longest river** in India.

Tributaries

- **Left-Hand Tributaries:** Include the **Bhima, Musi, Munneru, Dindi, Kolamba, and Peddavagu** rivers.
- **Right-Hand Tributaries:** Comprise the **Ghataprabha, Malaprabha, Tungabhadra, Koyna, Panchganga, and Dudhaganga** rivers.

Economic and Cultural Significance

- The **Prakasam Barrage**, designed by **Sir Arthur Cotton** and completed in **1957**, spans the **Krishna River**, facilitating **irrigation** for over **5.8 lakh acres** of land in **Andhra Pradesh**.

- The river supports several **major irrigation projects** and is vital for **agriculture** in the region.

GS Paper II: Polity	15 June 2026
TOPICS COVERED	
15J6	20 rebel Trinamool MPs seek to merge with NCPI तृणमूल कांग्रेस के 20 बागी सांसदों ने एनसीपीआई में विलय की मांग की

20 rebel Trinamool MPs seek to merge with NCPI

The leaders met Lok Sabha Speaker and requested separate seating arrangements; will seek recognition as the Trinamool in July, when Parliament session begins, says Bandyopadhyay

GS II: Polity
Shiv Sahay Singh
KOLKATA

After days of speculation, 20 rebel Trinamool Congress MPs on Sunday met Lok Sabha Speaker Om Birla at his residence in New Delhi and submitted a letter announcing their decision to merge with the National Citizens Party of India (NCPI).

The decision by the rebels to merge with a registered regional political party rather than form a separate bloc within the Trinamool Congress was to avoid any legal complications under the anti-defection law. The law states that when two-thirds of the legislators of a political party decide to merge with another party, neither those who join the new party nor the ones who stay with the original party face disqualification.

"The MPs met the Speaker and requested separate seating arrangements. We are more than two-thirds of MPs (of the Trinamool Congress) and will merge with the Nationalist Citizens Party of India. We will work with Prime Minister Narendra Modi and the NDA for the interest of the country," Kakoli



Big changes: Lok Sabha Speaker Om Birla receiving a letter from Trinamool Congress MPs in New Delhi. PTI

Ghosh Dastidar, MP, told presspersons after the meeting.

Support of 20 MPs
The office of the Speaker confirmed that 19 MPs attended the meeting. The rebel faction, however, claims the support of 20 MPs, with Sudip Bandyopadhyay joining the group on Saturday.

Mr. Bandyopadhyay, the senior-most MP in the rebel camp, said that while the MPs were merging with the NCPI as of now, in July, when Parliament session begins, they would seek recognition as the Trinamool Congress since they had a

two-thirds majority.

"We will merge with the Nationalist Citizens Party, which is a registered regional party. This is the system. When you leave with two-thirds of the party, you cannot demand the name of that party on the first day itself. In July, we will seek recognition as the Trinamool Congress since we have two-thirds of its MPs. Then the courts will decide," he said.

The NCPI was launched as National Citizens Party of India in Tripura in 2015 by a Kolkata-based woman Shewly Kundu.

Later, the party registered itself as Nationalist

Citizens Party of India in February 2, 2023 at Sankrail in Howrah district, data from the Election Commission suggest.

Separate bloc

After the defeat of the Trinamool Congress in the 2026 Assembly election in West Bengal, the majority of its Lok Sabha members had decided to set up a separate bloc and held meetings at the residence of Union Minister and Bharatiya Janata Party leader Bhupendra Yadav.

On Sunday, the majority of MPs had gathered at Mr. Yadav's residence before meeting the Speaker. The decision to merge with an almost unknown regional party has come as a surprise in political circles.

Before the rebel MPs met the Speaker, two MPs considered loyalists of Trinamool Congress supreme Mamata Banerjee also met Mr. Birla and submitted a letter from party leader Abhishek Banerjee.

The letter from the party's leader in Lok Sabha urged the Speaker to treat the Trinamool as a single party represented by its authorised whip and leader and urged him not to recognise any separate group.

15J6. 20 rebel Trinamool MPs seek to merge with NCPI

तृणमूल कांग्रेस के 20 बागी सांसदों ने एनसीपीआई में विलय की मांग की

- After days of speculation, 20 rebel Trinamool Congress MPs on Sunday met Lok Sabha Speaker Om Birla at his residence in New Delhi and submitted a letter announcing their decision to merge with the National Citizens Party of India (NCPI).

कई दिनों की अटकलों के बाद, तृणमूल कांग्रेस के 20 विद्रोही सांसदों ने रविवार को नई दिल्ली स्थित अपने

आवास पर लोकसभा अध्यक्ष ओम बिरला से मुलाकात की और नेशनल सिटिज़न्स पार्टी ऑफ इंडिया में विलय के अपने निर्णय की घोषणा करते हुए एक पत्र सौंपा।

- The decision by the rebels to merge with a registered regional political party rather than form a separate bloc within the Trinamool Congress was to avoid any legal complications under the anti-defection law.

विद्रोही सांसदों द्वारा तृणमूल कांग्रेस के भीतर अलग गुट बनाने के बजाय एक पंजीकृत क्षेत्रीय राजनीतिक दल में विलय का निर्णय दल-बदल विरोधी कानून के अंतर्गत संभावित कानूनी जटिलताओं से बचने के उद्देश्य से लिया गया।

- The law states that when two-thirds of the legislators of a political party decide to merge with another party, neither those who join the new party nor the ones who stay with the original party face disqualification.

कानून के अनुसार, जब किसी राजनीतिक दल के दो-तिहाई विधायक या सांसद किसी अन्य दल में विलय का निर्णय लेते हैं, तो न तो नए दल में जाने वाले और न ही मूल दल में बने रहने वाले सदस्य अयोग्यता का सामना करते हैं।

- "We will merge with the Nationalist Citizens Party, which is a registered regional party." उन्होंने कहा कि वे नेशनलिस्ट सिटिज़न्स पार्टी में विलय करेंगे, जो एक पंजीकृत क्षेत्रीय राजनीतिक दल है।
- The NCPI was launched as National Citizens Party of India in Tripura in 2015 by a Kolkata-based woman Shewly Kundu.

नेशनल सिटिज़न्स पार्टी ऑफ इंडिया की स्थापना 2015 में त्रिपुरा में कोलकाता की शेउली कुंडु द्वारा की गई थी।

- Later, the party registered itself as Nationalist Citizens Party of India in February 2, 2023 at Sankrail in Howrah district, data from the Election Commission suggest.

निर्वाचन आयोग के आँकड़ों के अनुसार बाद में इस दल ने 2 फरवरी 2023 को हावड़ा जिले के सांकरैल में स्वयं को नेशनलिस्ट सिटिज़न्स पार्टी ऑफ इंडिया के रूप में पंजीकृत कराया।

GS Paper II: International Relations	15 June 2026
TOPICS COVERED	
15J6	Modi, Macron talks stress economic security मोदी और मैक्रों की वार्ता में आर्थिक सुरक्षा पर जोर

Modi, Macron talks stress economic security

India, France adopt 'Innovation Roadmap 2030' as the two leaders meet in French city of Nice

GS II: IR
Sriram Lakshman
LONDON

India and France adopted an 'Innovation Roadmap 2030' and established a Dialogue on Economic Security during bilateral talks between Prime Minister Narendra Modi and French President Emmanuel Macron held in Nice on Sunday.

A press release from the government outlined a number of themes – including calling for the fast adoption of the India-EU Free Trade Agreement (FTA).

Earlier this year, the two countries had renamed their partnership a 'Special Global Strategic Partnership' to reflect an enhanced level of cooperation. No traditional 'joint statement' had emerged from the meeting as of this writing.

"Recognising the key role of innovation and

They establish Dialogue on Economic Security; call for early implementation of India-EU FTA

The leaders discuss private sector ties in space sector and SHANTI Act's implications in India



Eyeing the sky: Prime Minister Narendra Modi takes in the sea with French President Emmanuel Macron ahead of talks in Nice on Sunday. AP

technology in the bilateral relationship, both sides adopted an 'Innovation Roadmap 2030' to give the partnership a long-term direction," the press release said, with the two leaders agreeing to create a Joint India-France AI Working Group to expand coopera-

tion in AI. They also noted the signing of 19 agreements between entities in the innovation ecosystems of the two countries.

Calling for the early implementation of the India-EU FTA, which was signed in February this year, the two sides agreed to set up a

High-Level Mechanism to double trade in five years. The discussion also focused on cooperation in the SME, rail, and aviation sectors.

Mr. Modi and Mr. Macron agreed to strengthen supply chain resilience, particularly in critical min-

PM, Macron inaugurate Bharat Innovates 2026

Sriram Lakshman

Prime Minister Narendra Modi and French President Emmanuel Macron on Sunday co-inaugurated the Bharat Innovates 2026 in Nice where the leaders focused on trust and cooperation in technology. Mr. Modi invited investors to "design and develop in

India" to "create solutions for the world", while Mr. Macron said India brings the reliability that the world seeks at moments of upheaval in geopolitics. Commerce and Industry Minister Piyush Goyal and External Affairs Minister S. Jaishankar were present.

FULL REPORT ON
> PAGE 4

erals, as part of the 'Dialogue on Economic Security', as per the press release.

Cautious on crises
On the major crises in the world – in West Asia, including Iran and Gaza, as well as on Ukraine – the

press release remained circumspect relative to the February 17, 2026 joint statement from the two countries, saying only that leaders exchanged views "on matters of global importance, including the situation in West Asia and Ukraine".

The Prime Minister thanked Mr. Macron for the speedy implementation of visa-free transit for Indians in French airports and invited French universities to open campuses in India under the New Education Policy, as per the government statement.

The two leaders discussed private sector collaboration in the space sector and the SHANTI Act's (legislation governing the nuclear sector) implications in India.

"I think the field is open for French nuclear companies in this case to start looking at direct participation in the Indian nuclear sector, or do so with in participation with Indian private sector companies, whether in conventional nuclear power reactors or in the more advanced small modular reactors," Foreign Secretary Vikram Misra said at a press briefing in Nice.

15J6. Modi, Macron talks stress economic security मोदी और मैक्रों की वार्ता में आर्थिक सुरक्षा पर जोर

- **India and France adopted an 'Innovation Roadmap 2030'** and established a Dialogue on Economic Security during bilateral talks between Prime Minister Narendra Modi and French President Emmanuel Macron held in Nice on Sunday.
भारत और फ्रांस ने रविवार को नीस में आयोजित प्रधानमंत्री नरेन्द्र मोदी और फ्रांस के राष्ट्रपति इमैनुएल मैक्रों के बीच द्विपक्षीय वार्ता के दौरान 'इनोवेशन रोडमैप 2030' को अपनाया तथा आर्थिक सुरक्षा संवाद की स्थापना की।
- A press release from the government outlined a number of themes — including calling for the fast adoption of the **India-EU Free Trade Agreement (FTA)**.
सरकारी प्रेस विज्ञप्ति में कई विषयों का उल्लेख किया गया, जिनमें भारत-यूरोपीय संघ मुक्त व्यापार समझौते को शीघ्र लागू करने का आह्वान भी शामिल था।
- Earlier this year, the two countries had renamed their partnership a '**Special Global Strategic Partnership**' to reflect an enhanced level of cooperation.
इस वर्ष की शुरुआत में दोनों देशों ने अपने संबंधों को सहयोग के उन्नत स्तर को दर्शाने हेतु 'विशेष वैश्विक सामरिक साझेदारी' नाम दिया था।
- "Recognising the key role of innovation and technology in the bilateral relationship, both sides adopted an '**Innovation Roadmap 2030**' to give the partnership a long-term direction," the press release said, with the two leaders agreeing to create a **Joint India-France AI Working Group** to expand cooperation in AI.
प्रेस विज्ञप्ति के अनुसार, द्विपक्षीय संबंधों में नवाचार और प्रौद्योगिकी की महत्वपूर्ण भूमिका को स्वीकार करते हुए दोनों पक्षों ने साझेदारी को दीर्घकालिक दिशा प्रदान करने हेतु 'इनोवेशन रोडमैप 2030' को अपनाया तथा कृत्रिम बुद्धिमत्ता के क्षेत्र में सहयोग बढ़ाने के लिए संयुक्त भारत-फ्रांस कृत्रिम बुद्धिमत्ता कार्य समूह स्थापित करने पर सहमति व्यक्त की।
- Calling for the early implementation of the **India-EU FTA**, which was signed in February this year, the two sides agreed to set up a **High-Level Mechanism** to double trade in five years.
इस वर्ष फरवरी में हस्ताक्षरित भारत-यूरोपीय संघ मुक्त व्यापार समझौते के शीघ्र क्रियान्वयन का आह्वान करते हुए दोनों पक्षों ने पाँच वर्षों में व्यापार को दोगुना करने के लिए एक उच्च स्तरीय तंत्र स्थापित करने पर सहमति व्यक्त की।
- The two leaders discussed private sector collaboration in the **space sector** and the **SHANTI Act's** implications in India.
दोनों नेताओं ने अंतरिक्ष क्षेत्र में निजी क्षेत्र के सहयोग तथा भारत में शांति अधिनियम के प्रभावों पर भी चर्चा की।

GS Paper III: Economy		15 June 2026
TOPICS COVERED		
15J6	Vaishnav expects more companies to produce memory chips in India वैष्णव को उम्मीद है कि भारत में अधिक कंपनियाँ मेमोरी चिप्स का उत्पादन करेंगी	
15J6	Fuller expression पूर्ण अभिव्यक्ति	
15J6	Towards a fair, efficient insolvency regime एक न्यायसंगत एवं कुशल दिवाला व्यवस्था की ओर	
15J6	Making sense of the biggest IPO in history इतिहास के सबसे बड़े आईपीओ को समझना	
15J6	What is drop shipping, and what are the risks for online shoppers?	



	ड्रॉप शिपिंग क्या है, और ऑनलाइन खरीदारों के लिए इसके क्या जोखिम हैं?
15J6	India's maritime sector growth gets a push as DG Shipping issues first ship recycling credit note डीजी शिपिंग द्वारा पहला शिप रीसाइक्लिंग क्रेडिट नोट जारी किए जाने से भारत के समुद्री क्षेत्र की वृद्धि को बढ़ावा
15J6	In Zojila, light at the end of the tunnel जोजिला में, सुरंग के अंत में रोशनी

Vaishnaw expects more companies to produce memory chips in India

GS III: Economy
Press Trust of India
NEW DELHI

New companies are likely to invest in India to manufacture memory chips while existing investors will scale up production to address the demand-supply gap in the segment, Union Minister Ashwini Vaishnaw said.

Strong demand for memory (data storage) cards and advanced chips has tightened global supplies and supported higher prices in past quarters, and manufacturers have been sprucing up investments and production capacities to meet market requirements worldwide.

The higher memory chip prices have, in turn, led to a rise in production costs for a range of electronic products, including smartphones and laptops.

"Definitely, a lot more



Ashwini Vaishnaw

investment is coming in the memory manufacturing units, and that is because for the first time in the way the semiconductor industry has grown at such a rapid pace, for the first time we are seeing a huge shortage of certain components which are required in the AI data centres, the high bandwidth memory chips," Mr. Vaishnaw said.

Data centre investments in India are expected to cross \$200 billion soon,

which may need billions of gigabytes of storage capacity.

The Minister said there is a global phenomenon of supply-demand imbalance, which is now getting addressed by setting many more units.

When asked if there will be new investments in the memory chip segment or only existing players have plans to ramp up production, Mr. Vaishnaw said, "Looks like both might happen". He said the India Semicon Mission (ISM) 1.0 could get about 48 startups to work on the tech products.

"In ISM 2.0, that will be the topmost priority, design will be the topmost priority. The second biggest priority will be machines, which are used in the manufacturing of semiconductors," Mr. Vaishnaw said.

- "In ISM 2.0, that will be the topmost priority, design will be the topmost priority. The second biggest priority will be machines, which are used in the manufacturing of semiconductors," Mr. Vaishnaw said.

श्री वैष्णव ने कहा कि इंडिया सेमिकॉन मिशन 2.0 में डिज़ाइन को सर्वोच्च प्राथमिकता दी जाएगी, जबकि दूसरी सबसे बड़ी प्राथमिकता उन मशीनों को दी जाएगी जिनका उपयोग अर्धचालकों के निर्माण में किया जाता है।

15J6. Vaishnaw expects more companies to produce memory chips in India

वैष्णव को उम्मीद है कि भारत में अधिक कंपनियाँ मेमोरी चिप्स का उत्पादन करेंगी

- New companies are likely to invest in India to manufacture memory chips while existing investors will scale up production to address the demand-supply gap in the segment, Union Minister Ashwini Vaishnaw said.

केंद्रीय मंत्री अश्विनी वैष्णव ने कहा कि भारत में मेमोरी चिप निर्माण के लिए नई कंपनियाँ निवेश करने की संभावना रखती हैं, जबकि मौजूदा निवेशक मांग और आपूर्ति के बीच बढ़ते अंतर को दूर करने के लिए उत्पादन क्षमता का विस्तार करेंगे।

- He said the India Semicon Mission (ISM) 1.0 could get about 48 startups to work on the tech products.

उन्होंने कहा कि इंडिया सेमिकॉन मिशन 1.0 के अंतर्गत लगभग 48 स्टार्टअप प्रौद्योगिकी उत्पादों पर कार्य कर सकते हैं।



GS III: Economy **Fuller expression** A rapid decline in inflation appears unlikely even if the war ends

India's May retail inflation at 3.93%, the highest in the current CPI series and roughly a 15-month high if compared with the previous series, has begun to reflect the pass-through effects of surging food and fuel costs more clearly than in previous months. However, last month's wholesale inflation numbers, the first under the new WPI series and due later this month alongside India's first Producer Price Index (PPI), should reveal how much of the price shock producers and wholesalers continue to absorb. May's food inflation rose at a faster clip to 4.78% from 4.20% in April. While transport inflation rose by 1.75% after a marginal contraction in April, a subdivision within the sector – transport services for goods – surged by 7.63%, signalling growing price pass-through. This was largely driven by the four tranches of petrol and diesel price increases beginning in mid-May. Significantly, the sharp rise in commercial LPG prices – by about ₹1,300 per 19-kg cylinder, representing an increase of over 75% since February – appears to be reflected in inflation in the restaurants and accommodation services category, which stood at 5.75%, the second-highest division after personal care and miscellaneous goods and services. Inflation in the latter category reached 18.46%, reflecting soaring precious metals prices. Domestic LPG's second price revision by ₹29 earlier this month will likely find a fuller expression in June's consumer food price inflation.

Although May's inflation remains below the RBI's 4% target and within its 2%-6% tolerance band, the RBI retained its neutral stance at its latest monetary policy review, signalling concern over the possibility of further price pressures. Its intervention in the foreign exchange market through dollar sales has meanwhile helped shore up the rupee, Asia's worst-performing currency since the U.S.-Israeli conflict with Iran escalated. The currency, which briefly approached ₹97 to the dollar in May, is now trading closer to ₹95-₹96. The Centre may nevertheless draw some comfort from the fact that core inflation, which excludes food and fuel, remained relatively contained at around 3.8%-3.9% in May, largely unchanged from recent months. This coincides with signs of a U.S.-Iran rapprochement and uninterrupted shipping through the Hormuz. Yet, uncertainty persists over whether Iran may impose fees or restrictions on transit through the waterway, which could keep fuel prices elevated for energy-importing nations such as India. Even if crude prices soften, oil marketing companies are unlikely to immediately reverse retail price increases as they seek to recover losses. LPG prices, too, may remain sticky. Thus, while the prospects for a durable peace may have improved, a rapid decline in inflation appears unlikely.

की आशंका को दर्शाता है।

- Its intervention in the **foreign exchange market** through dollar sales has meanwhile helped shore up the **rupee**, Asia's worst-performing currency since the **U.S.-Israeli conflict with Iran** escalated.

इस बीच, **विदेशी मुद्रा बाज़ार** में डॉलर की बिक्री के माध्यम से किए गए हस्तक्षेप ने **रुपये** को सहारा दिया है, जो **अमेरिका-इज़राइल और ईरान के बीच संघर्ष** के बढ़ने के बाद एशिया की सबसे कमजोर प्रदर्शन करने वाली मुद्रा बन गई थी।

- The Centre may nevertheless draw some comfort from the fact that **core inflation**, which excludes food and fuel, remained relatively contained at around **3.8%-3.9%** in May, largely unchanged from recent months.

फिर भी, केंद्र सरकार इस तथ्य से कुछ राहत प्राप्त कर सकती है कि **आधारभूत मुद्रास्फीति**, जिसमें खाद्य एवं

15J6. Fuller expression पूर्ण अभिव्यक्ति

- India's May retail **inflation** at 3.93%, the highest in the current CPI series and roughly a 15-month high if compared with the previous series, has begun to reflect the pass-through effects of **surging food and fuel costs** more clearly than in previous months.

भारत की मई माह की खुदरा मुद्रास्फीति 3.93%, जो वर्तमान उपभोक्ता मूल्य सूचकांक श्रृंखला में सर्वाधिक तथा पूर्ववर्ती श्रृंखला की तुलना में लगभग **15 माह का उच्चतम स्तर** है, ने खाद्य एवं ईंधन लागतों में तीव्र वृद्धि के प्रभावों को पिछले महीने की तुलना में अधिक स्पष्ट रूप से प्रदर्शित करना प्रारम्भ कर दिया है।

- However, last month's **wholesale inflation numbers**, the first under the new **WPI series** and due later this month alongside **India's first Producer Price Index (PPI)**, should reveal how much of the price shock producers and wholesalers continue to absorb.

हालाँकि, पिछले माह के **थोक मुद्रास्फीति** के आँकड़े, जो नई **थोक मूल्य सूचकांक श्रृंखला** के अंतर्गत प्रथम होंगे तथा भारत के पहले **उत्पादक मूल्य सूचकांक** के साथ इस माह के अंत में जारी किए जाएंगे, यह स्पष्ट करेंगे कि मूल्य वृद्धि के झटके का कितना भाग उत्पादक और थोक व्यापारी अभी भी वहन कर रहे हैं।

- Significantly, the **sharp rise in commercial LPG prices** — by about **₹1,300 per 19-kg cylinder**, representing an increase of over **75% since February** — appears to be reflected in inflation in the **restaurants and accommodation services** category, which stood at **5.75%**, the second-highest division after personal care and miscellaneous goods and services.

विशेष रूप से, **वाणिज्यिक रसोई गैस** की कीमतों में लगभग **₹1,300 प्रति 19**

किलोग्राम सिलेंडर की वृद्धि, जो फरवरी से अब तक **75% से अधिक** की बढ़ोतरी को दर्शाती है, का प्रभाव **भोजनालय एवं आवास सेवाओं** की मुद्रास्फीति में दिखाई देता है, जो **5.75%** पर रही और व्यक्तिगत देखभाल तथा विविध वस्तु एवं सेवाओं के बाद दूसरा सर्वाधिक स्तर था।

- Although May's inflation remains below the **RBI's 4% target and within its 2%-6% tolerance band**, the **RBI** retained its **neutral stance** at its latest monetary policy review, signalling concern over the possibility of further price pressures.

यद्यपि मई की मुद्रास्फीति **भारतीय रिज़र्व बैंक के 4% लक्ष्य** से नीचे तथा उसकी **2%-6% सहनशीलता सीमा** के भीतर बनी हुई है, फिर भी **भारतीय रिज़र्व बैंक** ने अपनी नवीनतम मौद्रिक नीति समीक्षा में **तटस्थ रुख** बनाए रखा, जो आगे मूल्य दबाव बढ़ने



ईंधन को शामिल नहीं किया जाता, मई में लगभग 3.8%-3.9% पर नियंत्रित रही और हाल के महीनों की तुलना में लगभग अपरिवर्तित रही।

- This coincides with signs of a **U.S.-Iran rapprochement** and uninterrupted shipping through the **Hormuz**.

यह स्थिति अमेरिका और ईरान के बीच संबंधों में सुधार तथा हॉर्मुज़ जलडमरूमध्य से निर्बाध समुद्री परिवहन के संकेतों के साथ मेल खाती है।

Towards a fair, efficient insolvency regime

GS III: Economy

The outline of India's Insolvency and Bankruptcy Code (IBC) has long been demarcated by an innate stiffness between the inevitability to preserve distraught companies and the necessity to safeguard the interests of creditors. This contradiction is often cited as the 'Chakravyuha Challenge' – a structural paradox by which the economy eases a company's entry into the system but forms formidable formal fences when it wishes to exit.

From the Sick Industrial Companies Act, which demonstrated a debtor-in-possession model and had been plagued by promoter misuse, to the creditor-in-control model of the IBC, the historical flight of such laws reflects an incessant effort to improve the balance. Though the IBC aimed at providing time-bound resolutions, it has fallen short due to protracted litigation and procedural lapses. In light of this, the 2026 Amendment to the IBC presents the Creditor-Initiated Insolvency Resolution Process (CIIRP), a hybrid apparatus attempting to espouse debtor-in-possession topographies with the creditor-in-control model. Nevertheless, the amendment's restrictive framework bounds initiation rights to only a fine class of financial creditors belonging to "notified financial institutions", thereby inviting constitutional contests and economic ineptitude.

Swift yet stringent alternative

The CIIRP is a clever attempt to address financial crisis without the value-destroying disruption of typical liquidation proceedings by allowing the current management to maintain control over activities under the supervision of a resolution specialist. In order to reduce judicial intervention and procedural delays, the IBC established the CIIRP procedure by adding Sections 54C to 54P.

Significantly, the change is a legislative response to the ruling in



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India can make an efficient insolvency system that benefits everyone by using a universal CIIRP model based on financial interest instead of institutional identity

Vidarbha Industries. The National Company Law Tribunal (NCLT) was formerly given discretionary authority via the interpretation of "may" in Section 7(5)(a), which permitted it to postpone or reject admission even in cases where debt and default were proven. This has now been replaced by the required "shall" via the 2026 amendment, thereby compelling the NCLT to accept cases based on information utility records. As a less disruptive restructuring instrument, the CIIRP is an appealing, if exclusive, resort for creditors because corporate debtors experiencing transitory liquidity crises suddenly lack the breathing room to fight initiation.

However, by limiting the ability to start the CIIRP only for "notified financial institutions," the Act creates an arbitrary hierarchy within the class of financial creditors. Although the distinction between financial and operational creditors was previously maintained in *Swiss Ribbons* via the "intelligible differentia" standard of Article 14, this sub-classification is essentially different. The government's argument that "notified" institutions have special knowledge is out of date; sophisticated investors with the ability to perform in-depth restructuring analysis can be found in today's financial markets. The Act runs the danger of being overturned as arbitrary since it does not explain why these excluded parties are less able to promote resolutions that maximise value.

Operational and smaller financial creditors are significantly disenfranchised under the current arrangement as they are already at the bottom of the repayment priority list. Smaller creditors may be forced to the sidelines of restructuring talks as a result of the CIIRP's propensity to concentrate bargaining power in the hands of notified institutions. It compels non-notified creditors to undertake the more aggressive and disruptive Corporate

Insolvency Resolution Process (CIRP) just to protect their financial interests. This compromises the equity of the entire insolvency ecosystem.

The way ahead

The Indian method is mysteriously constrictive. The U.S.' Chapter 11 and the U.K.'s Part 26A restructuring plans base their access on objective financial conditions rather than the regulatory identity of the creditor. A wide range of stakeholders can participate in the restructuring process in both the U.S. and the U.K. as long as they meet certain requirements. India's choice to restrict initiation rights to a particular group of creditors is an anomaly that deters foreign investors from participating because they believe that the Indian market is intrinsically skewed against their asset classes. The law gives notified institutions procedural dominance, which makes Inter-Creditor Agreements less clear and informal negotiations less fair. If a lender who hasn't been notified is put on hold, they have to file for formal CIRP to protect their capital.

There must be a "universal CIIRP" with a "default-neutral initiation rule". This proposal does away with regulatory status and replaces it with a threshold based on financial exposure. Any financial creditor could start the process as long as they get the support of creditors holding at least 51% of the total financial debt. This takes care of constitutional issues while keeping a strong protection against one-sided, malicious filings.

By adding debtor-in-possession features, the 2026 amendment shows that the pure creditor-in-control model doesn't keep business value. But the 'notified institution' criteria could hurt these gains. India can make an efficient insolvency system that benefits everyone by using a universal CIIRP model based on financial interest instead of institutional identity.

15J6. Towards a fair, efficient insolvency regime

एक न्यायसंगत एवं कुशल दिवाला व्यवस्था की ओर

- The outline of **India's Insolvency and Bankruptcy Code (IBC)** has long been demarcated by an innate stiffness between the inevitability to **preserve distraught companies and the necessity to safeguard the interests of creditors**.
भारत की दिवाला एवं शोधन अक्षमता संहिता की रूपरेखा लंबे समय से संकटग्रस्त कंपनियों को बचाने की अनिवार्यता और ऋणदाताओं के हितों की रक्षा की आवश्यकता के बीच अंतर्निहित तनाव से परिभाषित होती रही है।
- This contradiction is often cited as the '**Chakravayuha Challenge**'— a structural paradox by which the economy eases a company's entry into the system but forms formidable formal fences when it wishes to exit.
इस विरोधाभास को प्रायः 'चक्रव्यूह चुनौती' कहा जाता है — एक ऐसी संरचनात्मक विसंगति जिसमें व्यवस्था किसी कंपनी के प्रवेश को सरल बनाती है, किन्तु उसके बाहर निकलने के समय कठोर औपचारिक बाधाएँ उत्पन्न कर देती है।
- From the **Sick Industrial Companies Act**, which demonstrated a debtor-in-possession model and had been plagued by promoter misuse, to the creditor-in-control model of the IBC, the historical flight of such laws reflects an incessant effort to improve the balance.
बीमार औद्योगिक कंपनियाँ अधिनियम, जो देनदार-नियंत्रित मॉडल पर आधारित था और प्रवर्तकों द्वारा दुरुपयोग की समस्याओं से ग्रस्त था, से लेकर वर्तमान ऋणदाता-नियंत्रित व्यवस्था तक, ऐसे कानूनों का विकास संतुलन स्थापित करने के निरंतर प्रयास को दर्शाता है।
- Though the **IBC aimed at providing time-bound resolutions**, it has **fallen short due to protracted litigation and procedural lapses**.
यद्यपि इस संहिता का उद्देश्य समयबद्ध समाधान प्रदान करना था, किन्तु दीर्घकालिक मुकदमों और प्रक्रियागत त्रुटियों के कारण यह अपेक्षित सफलता प्राप्त नहीं कर सकी।
- In light of this, the **2026 Amendment** to the IBC presents the **Creditor-Initiated Insolvency Resolution Process (CIIRP)**, a hybrid apparatus attempting to espouse debtor-in-possession topographies with the creditor-in-control model.
इसी पृष्ठभूमि में **2026 के संशोधन** के माध्यम से **ऋणदाता-प्रारम्भित दिवाला समाधान प्रक्रिया** प्रस्तुत की गई है, जो देनदार-नियंत्रित व्यवस्था और ऋणदाता-नियंत्रित मॉडल के बीच एक मिश्रित ढाँचा स्थापित करने का प्रयास करती है।
- Nevertheless, the amendment's restrictive framework bounds initiation rights to only a fine class of financial creditors belonging to "**notified financial institutions**", thereby inviting constitutional contests and economic ineptitude.
फिर भी, संशोधन का प्रतिबंधात्मक ढाँचा प्रक्रिया प्रारम्भ करने का अधिकार केवल "**अधिसूचित वित्तीय संस्थानों**" से संबंधित सीमित वित्तीय ऋणदाताओं तक सीमित करता है, जिससे संवैधानिक विवादों और आर्थिक अक्षमताओं की आशंका उत्पन्न होती है।

Swift yet stringent alternative

त्वरित किन्तु कठोर वैकल्पिक व्यवस्था

- The **CIIRP** is a clever attempt to address financial crisis without the value-destroying disruption of typical liquidation proceedings by allowing the current management to maintain control over activities under the supervision of a resolution specialist.
यह नई प्रक्रिया सामान्य परिसमापन कार्यवाही से उत्पन्न मूल्य-ह्रासकारी व्यवधानों से बचते हुए वित्तीय संकट का समाधान करने का एक अभिनव प्रयास है, जिसमें वर्तमान प्रबंधन को समाधान विशेषज्ञ की निगरानी में कार्य संचालन जारी रखने की अनुमति दी जाती है।
- In order to reduce judicial intervention and procedural delays, the IBC established the CIIRP procedure by adding **Sections 54C to 54P**.

न्यायिक हस्तक्षेप और प्रक्रियागत विलंब को कम करने के लिए संहिता में धारा 54C से 54P तक के प्रावधान जोड़कर यह प्रक्रिया स्थापित की गई है।

- The **National Company Law Tribunal (NCLT)** was formerly given discretionary authority via the interpretation of “may” in Section 7(5)(a), which permitted it to postpone or reject admission even in cases where debt and default were proven.

पूर्व में राष्ट्रीय कंपनी विधि न्यायाधिकरण को धारा 7(5)(a) में प्रयुक्त “कर सकता है” शब्द की व्याख्या के आधार पर विवेकाधीन शक्ति प्राप्त थी, जिसके कारण ऋण और चूक सिद्ध होने पर भी वह याचिका को स्थगित या अस्वीकार कर सकता था।

- This has now been replaced by the required “shall” via the 2026 amendment, thereby compelling the NCLT to accept cases based on information utility records.

अब 2026 के संशोधन द्वारा इसे अनिवार्य स्वरूप प्रदान करते हुए “करेगा” शब्द से प्रतिस्थापित कर दिया गया है, जिससे न्यायाधिकरण सूचना अभिलेखों के आधार पर मामलों को स्वीकार करने के लिए बाध्य होगा।

- However, by limiting the ability to start the CIRP only for “notified financial institutions,” the Act creates an arbitrary hierarchy within the class of financial creditors.

किन्तु इस प्रक्रिया को प्रारम्भ करने का अधिकार केवल “अधिसूचित वित्तीय संस्थानों” तक सीमित करके यह अधिनियम वित्तीय ऋणदाताओं के वर्ग के भीतर एक मनमाना पदानुक्रम स्थापित करता है।

- Although the distinction between financial and operational creditors was previously maintained in **Swiss Ribbons** via the “intelligible differentia” standard of **Article 14**, this sub-classification is essentially different.

यद्यपि वित्तीय और परिचालन ऋणदाताओं के बीच भेद को पूर्व में **स्विस रिबन्स** मामले में अनुच्छेद 14 के युक्तिसंगत वर्गीकरण सिद्धांत के आधार पर स्वीकार किया गया था, किन्तु वर्तमान उप-वर्गीकरण उससे मूलतः भिन्न है।

- The government’s argument that “notified” institutions have special knowledge is out of date; sophisticated investors with the ability to perform in-depth restructuring analysis can be found in today’s financial markets.

यह तर्क कि “अधिसूचित संस्थानों” के पास विशेष विशेषज्ञता होती है, अब अप्रासंगिक प्रतीत होता है, क्योंकि आज के वित्तीय बाजारों में गहन पुनर्गठन विश्लेषण करने में सक्षम परिष्कृत निवेशक व्यापक रूप से उपलब्ध हैं।

- The Act runs the danger of being overturned as arbitrary since it does not explain why these excluded parties are less able to promote resolutions that maximise value.

यह अधिनियम मनमाना घोषित किए जाने के जोखिम का सामना कर सकता है क्योंकि इसमें यह स्पष्ट नहीं किया गया है कि बाहर रखे गए अन्य पक्ष मूल्य-अधिकतमकरण करने वाले समाधान को बढ़ावा देने में कम सक्षम क्यों हैं।

- Operational and smaller financial creditors are significantly disenfranchised under the current arrangement as they are already at the bottom of the repayment priority list.

वर्तमान व्यवस्था के अंतर्गत परिचालन ऋणदाता तथा छोटे वित्तीय ऋणदाता गंभीर रूप से अधिकार-वंचित हो जाते हैं क्योंकि वे पहले से ही पुनर्भुगतान प्राथमिकता सूची में सबसे निचले स्तर पर स्थित हैं।

- It compels non-notified creditors to undertake the more aggressive and disruptive **Corporate Insolvency Resolution Process (CIRP)** just to protect their financial interests.

यह गैर-अधिसूचित ऋणदाताओं को अपने वित्तीय हितों की रक्षा के लिए अधिक कठोर और विघटनकारी कॉर्पोरेट दिवाला समाधान प्रक्रिया का सहारा लेने के लिए विवश करता है।

- The **U.S.’ Chapter 11** and the **U.K.’s Part 26A restructuring plans** base their access on objective financial conditions rather than the regulatory identity of the creditor.

संयुक्त राज्य अमेरिका की अध्याय 11 व्यवस्था तथा यूनाइटेड किंगडम की भाग 26ए पुनर्गठन योजना में प्रवेश का आधार ऋणदाता की नियामकीय पहचान नहीं, बल्कि वस्तुनिष्ठ वित्तीय परिस्थितियाँ होती हैं।

- Any financial creditor could start the process as long as they get the support of creditors holding at least **51% of the total financial debt**.

कोई भी वित्तीय ऋणदाता इस प्रक्रिया को प्रारम्भ कर सकेगा, बशर्ते उसे कुल वित्तीय ऋण के कम से कम 51% का प्रतिनिधित्व करने वाले ऋणदाताओं का समर्थन प्राप्त हो।

- India can make an efficient insolvency system that benefits everyone by using a universal CIIRP model based on financial interest instead of institutional identity.
भारत संस्थागत पहचान के स्थान पर वित्तीय हितों को आधार बनाकर एक सार्वभौमिक ऋणदाता-प्रारम्भित दिवाला समाधान मॉडल अपनाए, तो वह सभी हितधारकों को लाभ पहुँचाने वाली अधिक प्रभावी और न्यायसंगत दिवाला व्यवस्था विकसित कर सकता है।

Making sense of the biggest IPO in history

SpaceX's grand entry has raised concerns over the relaxation of rules enabling wealth concentration in the hands of a few

GS III: Economy

DATA POINT

Pon Vasanth B.A.
Sambavi Parthasarathy
Nitika Francis

Technopreneur Elon Musk, who was already the planet's richest person, became the world's first trillionaire with his company SpaceX's stock market debut on June 12, 2026. The company saw the biggest-ever initial public offering (IPO) in history.

However, SpaceX's entry has also raised concerns over the company's valuation; the relaxation of rules that enables the company to enter indices like the Nasdaq-100; and the increasing concentration of wealth among a few. New York City's mayor Zohran Mamdani, in a cryptic reaction on X said, "Reason \$1,000,000,000,000 why we should tax the rich".

SpaceX's market capitalisation, now estimated over \$2 trillion is less than the Gross Domestic Product of only 11 countries in the world, an indication of the unequal distribution of wealth (Chart 1). Additionally, Mr. Musk had merged his companies Starlink and xAI (which includes X) with SpaceX before he planned the IPO. As of Friday, SpaceX was the sixth largest company in terms of market capitalisation (Table 1). However, as the table shows, it is the only loss-making company in the list.

Among the three companies that are part of SpaceX, Starlink is the only company that has reported profits last year, leading many to express concerns that Mr. Musk has managed to sell the potential of his company, which includes building data centres, instead of its actual track record (Table 2).

If one were to place SpaceX's IPO in Indian terms, the initial offering of all the top 100 IPOs in India would not match the \$75 billion raised by the U.S. giant on Friday.

Soaring disparity

The data for the charts were sourced from Space Exploration Technologies Corp's Securities and Exchange Commission filings, Nasdaq, Renaissance Capital, World Bank, India Budget and Forbes

CHART 1: SpaceX's market capitalisation is greater than the GDP of 157 of the 168 countries analysed based on available World Bank data

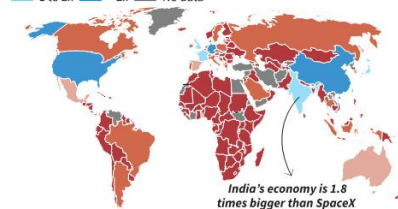


CHART 2: The chart shows the net worth (in \$ billion) of five of the most richest persons in the world

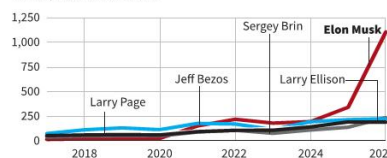


CHART 3: The 25 biggest-ever IPOs in history in terms of values of shares offered (in \$ million). SpaceX is nearly four-times bigger than Aramco

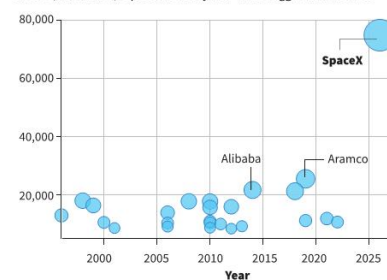


CHART 4: The 10 biggest IPOs from India in terms of the total value of shares offered (in ₹ crore). They do not add to even a tenth of the \$75 billion raised by SpaceX

Hyundai Motor India Limited	27,858.8
Life Insurance Corporation of India (LIC)	20,557.2
One97 Communications	18,300
Vodafone Idea Ltd	18,000
Tata Capital Ltd	15,511.9
Coal India Ltd	15,199.4
Yes Bank Ltd	15,000
HDB Financial Services Limited	12,500
LG Electronics Ind...	11,607
Swiggy Limited	11,327.4

TABLE 1: The five biggest companies in terms of market capitalisation, along with their revenues, and income

Rank	Company	Market capitalisation (in \$ trillion)	Revenue in 2025 (in \$ billion)	Net income in 2025 (in \$ billion)
1	NVIDIA	4.96	215.93	120.06
2	Alphabet	4.35	402.83	132.17
3	Apple	4.27	416.16	112.01
4	Microsoft	2.90	281.72	101.83
5	Amazon	2.56	716.90	77.60
6	SpaceX	2.10	18.67	-4.94

TABLE 2: Starlink is the only company to have reported profits in the last year

Companies part of SpaceX	Revenue (in \$ billion)	Operating income (in \$ billion)
SpaceX	4.086	-0.657
Starlink	11.387	4.423
xAI	3.201	-6.355

15J6. Making sense of the biggest IPO in history

इतिहास के सबसे बड़े आईपीओ को समझना

- SpaceX's grand entry has raised concerns over the relaxation of rules enabling wealth concentration in the hands of a few.
स्पेसएक्स के भव्य प्रवेश ने उन नियमों में ढील को लेकर चिंताएँ बढ़ा दी हैं, जो संपत्ति के संकेंद्रण को कुछ लोगों के हाथों में संभव बनाती हैं।
- Technopreneur Elon Musk, who was already the planet's richest person, became the world's first trillionaire with his company SpaceX's stock market debut on June 12,

2026.

प्रौद्योगिकी उद्यमी एलन मस्क, जो पहले से ही विश्व के सबसे धनी व्यक्ति थे, अपनी कंपनी स्पेसएक्स के 12 जून 2026 को हुए शेयर बाज़ार में पदार्पण के साथ विश्व के पहले खरबपति बन गए।

- The company saw the biggest-ever **initial public offering (IPO)** in history. कंपनी ने इतिहास का सबसे बड़ा प्रारम्भिक सार्वजनिक निर्गम प्रस्तुत किया।
- However, SpaceX's entry has also raised concerns over the company's valuation; the relaxation of rules that enables the company to enter indices like the **Nasdaq-100**; and the increasing concentration of wealth among a few. हालाँकि, स्पेसएक्स के प्रवेश ने कंपनी के मूल्यांकन, उसे नैसडैक-100 जैसे सूचकांकों में शामिल होने की अनुमति देने वाले नियमों में ढील तथा कुछ लोगों के हाथों में बढ़ती संपत्ति के संकेन्द्रण को लेकर चिंताएँ भी उत्पन्न की हैं।
- **SpaceX's market capitalisation, now estimated over \$2 trillion, is less than the Gross Domestic Product of only 11 countries in the world, an indication of the unequal distribution of wealth.**

स्पेसएक्स का बाज़ार पूँजीकरण, जो अब दो खरब डॉलर से अधिक आँका जा रहा है, विश्व के केवल 11 देशों के सकल घरेलू उत्पाद से कम है, जो संपत्ति के असमान वितरण का संकेत है।

- Additionally, **Mr. Musk had merged his companies Starlink and xAI (which includes X) with SpaceX before he planned the IPO.** इसके अतिरिक्त, श्री मस्क ने प्रारम्भिक सार्वजनिक निर्गम की योजना बनाने से पहले अपनी कंपनियों स्टारलिनक और एक्स एआई (जिसमें एक्स भी शामिल है) का विलय स्पेसएक्स के साथ कर दिया था।
- As of Friday, **SpaceX was the sixth largest company in terms of market capitalisation.** शुक्रवार तक स्पेसएक्स बाज़ार पूँजीकरण के आधार पर विश्व की छठी सबसे बड़ी कंपनी बन चुकी थी।
- **However, as the table shows, it is the only loss-making company in the list.** हालाँकि, उपलब्ध आँकड़ों के अनुसार यह सूची में शामिल एकमात्र ऐसी कंपनी है जो अभी भी घाटे में कार्य कर रही है।
- **Among the three companies that are part of SpaceX, Starlink is the only company that has reported profits last year, leading many to express concerns that Mr. Musk has managed to sell the potential of his company, which includes building data centres, instead of its actual track record.** स्पेसएक्स के अंतर्गत शामिल तीन कंपनियों में से केवल स्टारलिनक ने पिछले वर्ष लाभ दर्ज किया है, जिसके कारण अनेक लोगों ने यह चिंता व्यक्त की है कि श्री मस्क ने अपनी कंपनी के वास्तविक प्रदर्शन के बजाय उसकी संभावनाओं, जिनमें डेटा केन्द्रों का निर्माण भी शामिल है, को अधिक प्रभावी ढंग से प्रस्तुत किया है।
- **If one were to place SpaceX's IPO in Indian terms, the initial offering of all the top 100 IPOs in India would not match the \$75 billion raised by the U.S. giant on Friday.** यदि स्पेसएक्स के प्रारम्भिक सार्वजनिक निर्गम की तुलना भारतीय परिप्रेक्ष्य में की जाए, तो भारत के शीर्ष 100 प्रारम्भिक सार्वजनिक निर्गमों द्वारा जुटाई गई कुल राशि भी अमेरिकी कंपनी द्वारा शुक्रवार को जुटाए गए 75 अरब डॉलर के बराबर नहीं पहुँचती।



What is drop shipping, and what are the risks for online shoppers?

Drop shipping allows online individuals or agents who do not hold any products to take customer orders and pass them on to other makers or sellers, inserting themselves into the transaction as middlemen; while legal in most jurisdictions, the practice can expose customers to several risks

GS III: Economy
Sahana Venugopal

While scrolling through Instagram Reels, you naturally pause when an attractive product catches your eye: a sleek laptop bag for travel, a cheap set of popular novels, an ultra-fast wireless charger on sale, beautifully embroidered linen shirts, or leather-bound notebooks with custom gold foil inscriptions. Before you know it, you are entering your credit card number or UPI PIN.

Caught up in your shopping spree, you may not have checked the true origin of the product or other customers' reviews of the seller. What's more, you may not even realise that the "company" you paid is just a decorated webpage created with AI and owned by a person who does not hold a single product.

This is the economy of drop shipping: the business practice that allows almost anyone with an internet connection to sell products that come from others.

Here is what you should know as a customer.

What is drop shipping?

This is a business practice where an online individual or agent – who does not hold any product – takes orders from customers and passes them on to another maker/seller who actually holds the product. The product is then delivered to the customers, either by the original maker/seller or a third-party delivery service. To put it simply, the drop shipper inserts itself into the transaction as a middleman. One or even multiple drop shippers might stand between buyers and the original makers of the product they want.

The success of Amazon, the largest e-commerce retailer in the world, can be credited at least in part to drop shipping practices. In its earliest days, Amazon did not commandeer giant international warehouses packed with products; rather,

the company was a web-based middleman that fulfilled many customers' orders by sourcing the books they wanted.

Though Amazon's product delivery model has drastically evolved, the company allows drop shipping to take place via its platform. Other channels, such as Shopify, also enable drop shipping and help users manage the logistics. Alternatively, drop shipping might take place through channels such as WhatsApp, Instagram, Facebook, and lesser-known websites.

In essence, if you have ever bought any product online, there's a chance that you placed your order through a drop shipper rather than the original seller.

How does drop shipping work?

Drop shippers can work with both domestic and international manufacturers and customers. Some try to fill an existing gap in their local market (such as affordable school textbooks), some capitalise on market trends (such as the popularity of iPhone cases), and others build hype around rarer products (such as foreign luxury fashion). Most importantly, the drop shipper does not need to buy or store any of the products they are selling.

Drop shipping has become a popular source of income for both public-facing Instagram creators monetising their virality as well as private marketers looking for discreet revenue streams. What's more, with AI automating many customer services and harvesting business insights, drop shipping feels like something that almost anyone with an internet connection can try out.

In addition to promoting products and setting up online storefronts, drop shippers may also buy/sell courses that reveal current market trends, customer interests, trusted wholesalers, and useful AI tools, in order to generate further profits.

Drop shipping might look illogical at

first, but it is in vogue for a number of reasons.

Buyers trying to independently source foreign products from a wholesaler might be forced to order more than they need, or contend with complicated customs regulations and fees. They also may not know if the original seller is legitimate, or might be unable to communicate with them due to a language barrier.

However, placing orders through a vetted drop shipper with a user-friendly web page eases some of these worries. What's more, legitimate drop shippers regularly carry out quality assurance tests of their own, and should ideally become a customer support layer of sorts in order to resolve any complaints.

Is drop shipping legal?

Drop shipping is legal in most jurisdictions, as long as the participants involved ensure transparency and comply with their region's tax laws.

Instagram's commerce eligibility requirements state that the users' Facebook Pages or Instagram professional accounts must contain product listings that are available for direct purchase from the user's website. In case buyers are being directed to another website, the user must provide the domain through which they sell, and their channels must represent the shop associated with the domain.

But now that it is possible to create entire storefronts and e-commerce websites in minutes with just some cheap domains and a few AI coding prompts, Instagram drop shippers can easily present themselves as original sellers and offload customer orders to other sellers. Videos of workers sorting through wrapped packages, or Reels of founders happily holding up stacks of paper that they claim are customer orders, can mislead social media shoppers into thinking they are dealing directly with a trusted seller.

Ultimately, the line separating

influencers, marketers, and sellers can blur quickly on social media. Some drop shippers also ask customers to contact them via WhatsApp, to take their communication off the app. Buyers may not know where their products are actually coming from or how their data privacy rights are being eroded. And as supply chain transparency is lost, drop shipping operations can quickly slide into a legal grey area or end up in criminal violations.

Some risks include scams targeting customers, as well as scams targeting drop shippers. Original sellers and drop shippers may both inflate product prices.

Drop shippers might also work with wholesalers sending out defective/rejected products. Furthermore, drop shippers may unknowingly promote pirated/counterfeit products. Hyper-realistic AI product images can mislead both customers and casual drop shippers.

Meanwhile, delivery timelines can be long – if the product even arrives at all. The drop shipper may not be required to take responsibility for any safety or hygiene standards that have to be maintained while shipping the products.

Adding to this, multiple drop shipping layers in different countries can inadvertently lead to sanctions violations. In case of complaints, cancellations, or refund requests, customers may have no choice except to cut their losses and move on.

Other dangers include pyramid schemes to recruit more drop shippers, or even cyber-crimes via phishing and hacks, as the customers' payment information is shared with multiple parties without their informed consent.

So, the next time you spot a book influencer on Instagram promoting a handy new reading light, or stumble across an excited founder surrounded by sacks of customer orders, take a few minutes to do your research and find out who is really selling you the product.

15J6. What is drop shipping, and what are the risks for online shoppers?

ड्रॉप शिपिंग क्या है, और ऑनलाइन खरीदारों के लिए इसके क्या जोखिम हैं?

- **Drop shipping** allows online individuals or agents who do not hold any products to take customer orders and pass them on to other makers or sellers, inserting themselves into the transaction as middlemen.

ड्रॉप शिपिंग ऐसी व्यवस्था है जिसमें ऑनलाइन व्यक्ति या एजेंट, जो स्वयं कोई उत्पाद अपने पास नहीं रखते, ग्राहकों के ऑर्डर प्राप्त करते हैं और उन्हें अन्य निर्माताओं या विक्रेताओं को भेज देते हैं, तथा लेन-देन में मध्यस्थ के रूप में शामिल हो जाते हैं।

- While legal in most jurisdictions, the practice can expose customers to several risks.

यद्यपि अधिकांश न्यायक्षेत्रों में यह व्यवस्था वैध है, फिर भी यह ग्राहकों को अनेक जोखिमों के प्रति संवेदनशील बना सकती है।

- While scrolling through Instagram Reels, you naturally pause when an attractive product catches your eye: a sleek laptop bag for travel, a cheap set of popular novels, an ultra-fast wireless charger on sale, beautifully embroidered linen shirts, or leather-bound notebooks with custom gold foil inscriptions.

इंस्टाग्राम रील्स देखते समय जब कोई आकर्षक उत्पाद आपकी नज़र में आता है — जैसे यात्रा हेतु आकर्षक लैपटॉप बैग, लोकप्रिय उपन्यासों का सस्ता सेट, अत्यधिक तीव्र गति वाला वायरलेस चार्जर, सुंदर कढ़ाई वाली



लिनेन शर्ट या स्वर्णाक्षरों से सजाई गई चमड़े की जिल्द वाली नोटबुक — तो आप स्वाभाविक रूप से रुक जाते हैं।

- Before you know it, you are entering your credit card number or UPI PIN.
आपको पता भी नहीं चलता और आप अपना क्रेडिट कार्ड नंबर या यूपीआई पिन दर्ज कर रहे होते हैं।
- Caught up in your shopping spree, you may not have checked the true origin of the product or other customers' reviews of the seller.
खरीदारी के उत्साह में आप संभवतः उत्पाद की वास्तविक उत्पत्ति या विक्रेता के बारे में अन्य ग्राहकों की समीक्षाएँ जाँचना भूल जाते हैं।
- What's more, you may not even realise that the "company" you paid is just a decorated webpage created with AI and owned by a person who does not hold a single product.
इतना ही नहीं, संभव है कि आपको यह भी ज्ञात न हो कि जिस "कंपनी" को आपने भुगतान किया है, वह केवल कृत्रिम बुद्धिमत्ता से निर्मित एक आकर्षक वेबपृष्ठ है और उसका स्वामी स्वयं एक भी उत्पाद अपने पास नहीं रखता।
- This is the economy of **drop shipping**: the business practice that allows almost anyone with an internet connection to sell products that come from others.
यही ड्रॉप शिपिंग की अर्थव्यवस्था है — एक ऐसी व्यावसायिक व्यवस्था जो इंटरनेट कनेक्शन रखने वाले लगभग किसी भी व्यक्ति को दूसरों के उत्पाद बेचने की अनुमति देती है।

What is drop shipping?

ड्रॉप शिपिंग क्या है?

- This is a business practice where an online individual or agent — who does not hold any product — takes orders from customers and passes them on to another maker/seller who actually holds the product.
यह एक ऐसी व्यावसायिक पद्धति है जिसमें कोई ऑनलाइन व्यक्ति या एजेंट, जिसके पास स्वयं कोई उत्पाद नहीं होता, ग्राहकों से आदेश प्राप्त करता है और उन्हें उस निर्माता या विक्रेता तक पहुँचाता है जिसके पास वास्तव में उत्पाद उपलब्ध होता है।
- The product is then delivered to the customers, either by the original maker/seller or a third-party delivery service.
इसके बाद उत्पाद को मूल निर्माता अथवा विक्रेता या किसी तृतीय पक्ष वितरण सेवा के माध्यम से ग्राहक तक पहुँचाया जाता है।
- To put it simply, the drop shipper inserts itself into the transaction as a middleman.
सरल शब्दों में कहें तो ड्रॉप शिपर स्वयं को लेन-देन में एक मध्यस्थ के रूप में सम्मिलित कर लेता है।
- One or even multiple drop shippers might stand between buyers and the original makers of the product they want.
कई बार खरीदार और उत्पाद के वास्तविक निर्माता के बीच एक या एक से अधिक ड्रॉप शिपर मौजूद हो सकते हैं।
- The success of **Amazon**, the largest e-commerce retailer in the world, can be credited at least in part to drop shipping practices.
विश्व की सबसे बड़ी ई-कॉमर्स कंपनी अमेज़न की सफलता का एक कारण ड्रॉप शिपिंग पद्धति को भी माना जाता है।
- In its earliest days, Amazon did not commandeer giant international warehouses packed with products; rather, the company was a web-based middleman that fulfilled many customers' orders by sourcing the books they wanted.
अपने प्रारम्भिक वर्षों में अमेज़न के पास विशाल अंतरराष्ट्रीय गोदाम नहीं थे, बल्कि यह एक वेब-आधारित मध्यस्थ के रूप में ग्राहकों की माँग के अनुसार पुस्तकें उपलब्ध कराता था।
- Though Amazon's product delivery model has drastically evolved, the company allows drop shipping to take place via its platform.

यद्यपि अमेज़न की वितरण प्रणाली समय के साथ अत्यधिक विकसित हो चुकी है, फिर भी उसका मंच ड्रॉप शिपिंग की अनुमति देता है।

- Other channels, such as **Shopify**, also enable drop shipping and help users manage the logistics.
शॉपिफ़ाई जैसे अन्य मंच भी ड्रॉप शिपिंग को संभव बनाते हैं तथा उपयोगकर्ताओं को वितरण प्रबंधन में सहायता प्रदान करते हैं।
- Alternatively, drop shipping might take place through channels such as **WhatsApp, Instagram, Facebook**, and lesser-known websites.
वैकल्पिक रूप से ड्रॉप शिपिंग व्हाट्सएप, इंस्टाग्राम, फेसबुक तथा कम प्रसिद्ध वेबसाइटों के माध्यम से भी संचालित हो सकती है।
- In essence, if you have ever bought any product online, there's a chance that you placed your order through a drop shipper rather than the original seller.
संक्षेप में, यदि आपने कभी कोई उत्पाद ऑनलाइन खरीदा है, तो यह संभव है कि आपका आदेश वास्तविक विक्रेता के बजाय किसी ड्रॉप शिपर के माध्यम से गया हो।

How does drop shipping work?

ड्रॉप शिपिंग कैसे कार्य करती है?

- Drop shippers can work with both domestic and international manufacturers and customers.
ड्रॉप शिपर घरेलू तथा अंतरराष्ट्रीय दोनों प्रकार के निर्माताओं और ग्राहकों के साथ कार्य कर सकते हैं।
- Some try to fill an existing gap in their local market, some capitalise on market trends, and others build hype around rarer products.
कुछ लोग स्थानीय बाज़ार की आवश्यकताओं की पूर्ति करते हैं, कुछ प्रचलित बाज़ार प्रवृत्तियों का लाभ उठाते हैं, जबकि अन्य दुर्लभ उत्पादों के प्रति आकर्षण उत्पन्न करते हैं।
- In addition to promoting products and setting up online storefronts, drop shippers may also buy/sell courses that reveal current market trends, customer interests, trusted wholesalers, and useful AI tools, in order to generate further profits.
उत्पादों के प्रचार और ऑनलाइन स्टोर स्थापित करने के अतिरिक्त, ड्रॉप शिपर वर्तमान बाज़ार प्रवृत्तियों, ग्राहकों की रुचियों, विश्वसनीय थोक विक्रेताओं और उपयोगी कृत्रिम बुद्धिमत्ता उपकरणों से संबंधित पाठ्यक्रमों की खरीद-बिक्री भी कर सकते हैं ताकि अतिरिक्त लाभ अर्जित किया जा सके।
- They also may not know if the original seller is legitimate, or might be unable to communicate with them due to a language barrier.
उन्हें यह भी ज्ञात नहीं हो सकता कि मूल विक्रेता वास्तविक और विश्वसनीय है या नहीं, अथवा भाषा संबंधी बाधाओं के कारण वे उससे प्रभावी संवाद स्थापित नहीं कर पाते।
- However, placing orders through a vetted drop shipper with a user-friendly web page eases some of these worries.
किन्तु एक विश्वसनीय ड्रॉप शिपर के माध्यम से, जिसकी वेबसाइट उपयोगकर्ता-अनुकूल हो, आदेश देना इन चिंताओं को कुछ हद तक कम कर सकता है।
- What's more, legitimate drop shippers regularly carry out quality assurance tests of their own, and should ideally become a customer support layer of sorts in order to resolve any complaints.
इसके अतिरिक्त, वैध ड्रॉप शिपर नियमित रूप से गुणवत्ता परीक्षण भी करते हैं और आदर्श रूप से ग्राहकों की शिकायतों के समाधान हेतु सहायता तंत्र के रूप में कार्य करते हैं।

Is drop shipping legal?

क्या ड्रॉप शिपिंग वैध है?

- Drop shipping is legal in most jurisdictions, as long as the participants involved ensure transparency and comply with their region's tax laws.

अधिकांश देशों और क्षेत्रों में ड्रॉप शिपिंग वैध है, बशर्ते संबंधित पक्ष पारदर्शिता बनाए रखें और स्थानीय कानूनों का पालन करें।

- In case buyers are being directed to another website, the user must provide the domain through which they sell, and their channels must represent the shop associated with the domain.

यदि ग्राहकों को किसी अन्य वेबसाइट पर भेजा जाता है, तो उपयोगकर्ता को उस डोमेन की जानकारी देनी होती है जिसके माध्यम से बिक्री की जाती है, और उनके मंचों को उसी दुकान का प्रतिनिधित्व करना चाहिए।

- But now that it is possible to create entire shopfronts and e-commerce websites in minutes with just some cheap domains and a few AI coding prompts, Instagram drop shippers can easily present themselves as original sellers and offload customer orders to other sellers.

किन्तु अब सस्ते डोमेन और कुछ कृत्रिम बुद्धिमत्ता आधारित कोडिंग निर्देशों की सहायता से कुछ ही मिनटों में पूर्ण ई-वाणिज्य वेबसाइटें बनाई जा सकती हैं, जिससे इंस्टाग्राम आधारित ड्रॉप शिपर स्वयं को मूल विक्रेता के रूप में प्रस्तुत कर ग्राहकों के आदेश अन्य विक्रेताओं को भेज सकते हैं।

India's maritime sector growth gets a push as DG Shipping issues first ship recycling credit note

GS III: Economy

Aneesh Phadnis

India's ambitions for sustainable maritime sector growth have taken off with the sector regulator issuing the first ship recycling credit note.

On May 28, the Directorate General of Shipping issued the credit note to a Liberia-based shipping firm under a scheme to promote safe recycling and shipbuilding.

India is a global leader in the ship recycling industry handling around 30% of dismantled vessels. The credit note scheme is expected to boost competitiveness of Indian yards, attract fresh investments and strengthen the circular economy.

Ship owners will get a credit note equivalent to 40% of scrap value upon recycling in certified facilities. The note will be valid for three years and can be redeemed up to five per cent of the fair price of a new vessel built in an Indian shipyard.

"The ship recycling credit note scheme is a step in the right direction and demonstrates the government's intent to position India as a hub for ship recycling and shipbuilding," said Deepak Shetty, former Director General of Shipping.

Its launch also aligns with the implementation of the Hong Kong International Convention for Safe and Environmentally Sound Recycling of Ships. The convention is a binding global treaty which



Smooth seas: Ship owners will get a credit note equivalent to 40% of scrap value upon recycling in certified facilities. AP

mandates environmentally sound recycling practices that minimise health risks for yard workers and prevents pollution from its activities. The convention came into force last June.

Ensuring compliance

"India currently has 111 ship recycling yards compliant with the Hong Kong International Convention (HKC), located at Alang, Gujarat. This represents one of the largest concentrations of HKC-compliant ship recycling facilities anywhere in the world," said Director General of Shipping Shyam Jagannathan.

Under the convention, recycling yards are required to implement occupational health and safety measures, maintain environmental protection systems and ensure proper management of hazardous materials and waste. Facilities are also required to

India is a global leader in the ship recycling industry handling around 30% of dismantled vessels

maintain worker training programmes, emergency preparedness procedures and environmental monitoring mechanisms.

Mr. Jagannathan said the directorate in coordination with state authorities and recognised organisations undertakes periodic inspections, audits and certification activities to ensure continued compliance.

According to Ship Recycling Industries Association (India) a total of 119 ships were recycled in India in FY 2026 amounting to 1.08 million light displacement tons – an industry metric that measures the quantity of recyclable material available for pro-

cessing. The new scheme and initiatives in digitalisation and ease of doing business will help grow the numbers.

Mr. Jagannathan said the ship recycling credit note scheme has seen encouraging traction. Already 41 ship owners have registered and six applications have been received under the scheme.

The first credit note valued ₹29 crore was issued for recycling of a St. Kitts and Nevis flagged capsized vessel called Kosta. The ship owned by Bella Shipping Inc was recycled at the Inducto Steel Limited yard at Alang in April.

"All ships recycled at Hong Kong Convention compliant yards in India are eligible for the credit note, subject to adherence to the scheme's prescribed conditions and procedures," he said. A unified ship recycling portal enables seamless applications,

processing, tracking and issuance of digitally signed credit notes bringing together the Directorate, state maritime boards and recycling yards on a single platform, he added.

While the scheme creates a powerful incentive for shipowners to recycle and build in India, its execution will depend on practical considerations whether credit note validity aligns with shipping firm's acquisition plans. A crucial test would also be the Indian shipyard's ability to deliver vessels on time. While India is a leader in ship recycling, it is a laggard in shipbuilding. A S&P Global Commodity Insights report last year said the Indian ship building industry accounts for less than one per cent of the global market while China holds 60 per cent share.

Last year the government unveiled a ₹70,000 crore package to boost

shipbuilding and maritime sector in the country. The credit note scheme was a part of the package. The package is seeing signs of success with HD Hyundai signing an MoU for greenfield shipyard in Tamil Nadu. Cochin Shipyard securing a contract for six LNG-powered vessels from shipping line CMA CGM is also seen as a win.

Ship recycling specialist Dr. Anand Hiremath suggests that the government could take further steps.

"New building decisions take time. A three year window for credit note may be too short for serious global owners. A 4-6 year period could make the scheme more attractive," he said.

A pre-approval mechanism could also help owners find out in advance the eligibility and discounts available through credit note mechanism. "The government should support yard capability through completion guarantees, vendor clusters, training support and milestone linked grants. The focus must be on execution," Mr. Hiremath said. Over the years the skilled Indian workforce has moved to shipyards overseas for better career prospects. The government should launch a targeted programme to attract this experienced workforce through incentives, relocation support, skill recognition and long term employment opportunities, he added.

(The writer is with The Hindu businessline)

15J6. India's maritime sector growth gets a push as DG Shipping issues first ship recycling credit note

डीजी शिपिंग द्वारा पहला शिप रीसाइक्लिंग क्रेडिट नोट जारी किए जाने से भारत के समुद्री क्षेत्र की वृद्धि को बढ़ावा

- India's ambitions for **sustainable maritime sector** growth have taken off with the sector regulator issuing the **first ship recycling credit note**.
सतत समुद्री क्षेत्र की वृद्धि के लिए भारत की महत्वाकांक्षाओं को तब गति मिली जब क्षेत्रीय नियामक ने पहला शिप रीसाइक्लिंग क्रेडिट नोट जारी किया।
- On May 28, the **Directorate General of Shipping** issued the credit note to a Liberia-based shipping firm under a scheme to promote safe recycling and shipbuilding.
28 मई को डायरेक्टरेट जनरल ऑफ शिपिंग ने सुरक्षित रीसाइक्लिंग और जहाज निर्माण को बढ़ावा देने वाली एक योजना के तहत लाइबेरिया स्थित एक शिपिंग कंपनी को यह क्रेडिट नोट जारी किया।
- India is a global leader in the **ship recycling industry** handling around 30% of dismantled vessels.
भारत शिप रीसाइक्लिंग उद्योग में वैश्विक अग्रणी है और दुनिया में तोड़े जाने वाले लगभग 30% जहाजों का प्रबंधन करता है।
- Ship owners will get a credit note equivalent to **40% of scrap value** upon recycling in certified facilities.
प्रमाणित सुविधाओं में रीसाइक्लिंग कराने पर जहाज मालिकों को स्कैप मूल्य के 40% के बराबर क्रेडिट नोट मिलेगा।
- The note will be valid for **three years** and can be redeemed up to **five per cent** of the fair price of a new vessel built in an Indian shipyard.
यह नोट तीन वर्षों तक वैध रहेगा और भारतीय शिपयार्ड में निर्मित नए जहाज के उचित मूल्य के पाँच प्रतिशत तक भुनाया जा सकेगा।
- Its launch also aligns with the implementation of the **Hong Kong International Convention for Safe and Environmentally Sound Recycling of Ships**.
इसका शुभारंभ जहाजों के सुरक्षित और पर्यावरणीय रूप से अनुकूल रीसाइक्लिंग हेतु हांगकांग अंतरराष्ट्रीय सम्मेलन के कार्यान्वयन के अनुरूप भी है।
- The convention is a binding global treaty which mandates environmentally sound recycling practices that minimise health risks for yard workers and prevents pollution from its activities.
यह सम्मेलन एक बाध्यकारी वैश्विक संधि है जो पर्यावरण-अनुकूल रीसाइक्लिंग प्रथाओं को अनिवार्य बनाती है, जिससे यार्ड कर्मियों के स्वास्थ्य जोखिम कम होते हैं और प्रदूषण को रोका जाता है।
- The convention came into force last June.
यह सम्मेलन पिछले जून से प्रभावी हुआ।

Ensuring compliance अनुपालन सुनिश्चित करना

- "India currently has **111 ship recycling yards** compliant with the **Hong Kong International Convention (HKC)**, located at **Alang, Gujarat**.
"भारत में वर्तमान में **111 शिप रीसाइक्लिंग यार्ड** हैं जो हांगकांग अंतरराष्ट्रीय सम्मेलन (HKC) के अनुरूप हैं और अलंग, गुजरात में स्थित हैं।
- This represents one of the largest concentrations of HKC-compliant ship recycling facilities anywhere in the world," said Director General of Shipping **Shyam Jagannathan**.
महानिदेशक **श्याम जगन्नाथन** ने कहा कि यह दुनिया में HKC-अनुपालक शिप रीसाइक्लिंग सुविधाओं के सबसे बड़े समूहों में से एक है।
- Under the convention, recycling yards are required to implement **occupational health and safety measures**, maintain environmental protection systems and ensure proper management of hazardous materials and waste.

इस सम्मेलन के तहत रीसाइक्लिंग यार्डों को व्यावसायिक स्वास्थ्य एवं सुरक्षा उपाय लागू करने, पर्यावरण संरक्षण प्रणालियों को बनाए रखने और खतरनाक पदार्थों तथा अपशिष्ट का उचित प्रबंधन सुनिश्चित करने की आवश्यकता होती है।

- Facilities are also required to maintain worker training programmes, emergency preparedness procedures and environmental monitoring mechanisms.

सुविधाओं को श्रमिक प्रशिक्षण कार्यक्रम, आपातकालीन तैयारी प्रक्रियाएँ और पर्यावरणीय निगरानी तंत्र भी बनाए रखने होते हैं।

- Mr. Jagannathan said the directorate in coordination with state authorities and recognised organisations undertakes periodic inspections, audits and certification activities to ensure continued compliance.

श्री जगन्नाथन ने कहा कि निदेशालय राज्य प्राधिकरणों और मान्यता प्राप्त संगठनों के साथ मिलकर निरंतर अनुपालन सुनिश्चित करने के लिए नियमित निरीक्षण, ऑडिट और प्रमाणन गतिविधियाँ संचालित करता है।

- According to Ship Recycling Industries Association (India) a total of 119 ships were recycled in India in FY 2026 amounting to 1.08 million light displacement tons — an industry metric that measures the quantity of recyclable material available for processing.

शिप रीसाइक्लिंग इंडस्ट्रीज एसोसिएशन (इंडिया) के अनुसार FY 2026 में भारत में कुल 119 जहाजों का रीसाइक्लिंग किया गया, जो 1.08 मिलियन लाइट डिस्प्लेसमेंट टन के बराबर था।

- The first credit note valued ₹29 crore was issued for recycling of a St. Kitts and Nevis flagged capsized vessel called Kosta.

पहला ₹29 करोड़ मूल्य का क्रेडिट नोट सेंट किट्स एंड नेविस ध्वज वाले कोस्टा नामक पलटे हुए जहाज के रीसाइक्लिंग के लिए जारी किया गया।

- “All ships recycled at Hong Kong Convention compliant yards in India are eligible for the credit note, subject to adherence to the scheme’s prescribed conditions and procedures,” he said.

उन्होंने कहा कि भारत में हांगकांग सम्मेलन-अनुपालक यार्डों में रीसाइक्लिंग किए गए सभी जहाज क्रेडिट नोट के पात्र हैं, बशर्ते योजना की निर्धारित शर्तों और प्रक्रियाओं का पालन किया जाए।

- A unified ship recycling portal enables seamless applications, processing, tracking and issuance of digitally signed credit notes bringing together the Directorate, state maritime boards and recycling yards on a single platform, he added.

उन्होंने कहा कि एकीकृत शिप रीसाइक्लिंग पोर्टल आवेदन, प्रसंस्करण, ट्रैकिंग और डिजिटल हस्ताक्षरित क्रेडिट नोट जारी करने की सुविधा प्रदान करता है तथा निदेशालय, राज्य समुद्री बोर्डों और रीसाइक्लिंग यार्डों को एक मंच पर लाता है।

- A crucial test would also be the Indian shipyard’s ability to deliver vessels on time.

एक महत्वपूर्ण परीक्षा भारतीय शिपयार्डों की समय पर जहाज उपलब्ध कराने की क्षमता भी होगी।

- While India is a leader in ship recycling, it is a laggard in shipbuilding.

जहाँ भारत शिप रीसाइक्लिंग में अग्रणी है, वहीं जहाज निर्माण में पिछड़ा हुआ है।

- A S&P Global Commodity Insights report last year said the Indian shipbuilding industry accounts for less than one per cent of the global market while China holds 60 per cent share.

पिछले वर्ष की S&P Global Commodity Insights रिपोर्ट के अनुसार भारतीय जहाज निर्माण उद्योग का वैश्विक बाजार में हिस्सा एक प्रतिशत से भी कम है, जबकि चीन का हिस्सा 60 प्रतिशत है।

- Last year the government unveiled a ₹70,000 crore package to boost shipbuilding and maritime sector in the country.

पिछले वर्ष सरकार ने जहाज निर्माण और समुद्री क्षेत्र को बढ़ावा देने के लिए ₹70,000 करोड़ का पैकेज घोषित किया था।

- The credit note scheme was a part of the package.

क्रेडिट नोट योजना इस पैकेज का एक हिस्सा थी।

- A pre-approval mechanism could also help owners find out in advance the eligibility and discounts available through credit note mechanism.

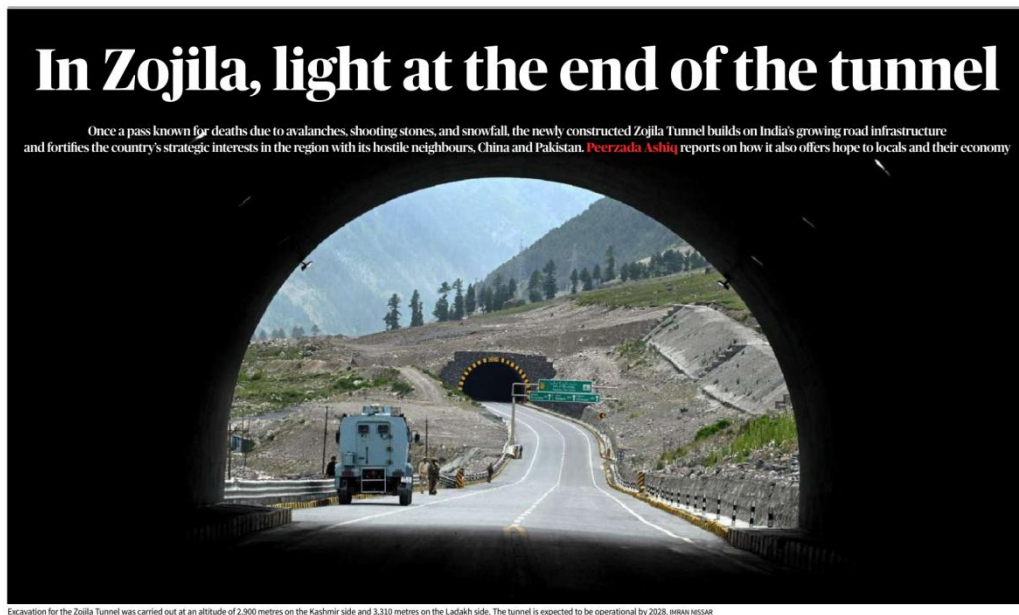
पूर्व-अनुमोदन तंत्र से मालिक पहले ही पात्रता और क्रेडिट नोट के माध्यम से मिलने वाली छूट के बारे में जान सकते हैं।

- Over the years the skilled Indian workforce has moved to shipyards overseas for better career prospects.

वर्षों के दौरान कुशल भारतीय कार्यबल बेहतर करियर संभावनाओं के लिए विदेशी शिपयार्डों में चला गया है।

- The government should launch a targeted programme to attract this experienced workforce through incentives, relocation support, skill recognition and long term employment opportunities, he added.

उन्होंने कहा कि सरकार को प्रोत्साहन, पुनर्वास सहायता, कौशल मान्यता और दीर्घकालिक रोजगार अवसरों के माध्यम से इस अनुभवी कार्यबल को आकर्षित करने हेतु एक लक्षित कार्यक्रम शुरू करना चाहिए।



In Zojila, light at the end of the tunnel

Once a pass known for deaths due to avalanches, shooting stones, and snowfall, the newly constructed Zojila Tunnel builds on India's growing road infrastructure and fortifies the country's strategic interests in the region with its hostile neighbours, China and Pakistan. **Peerzada Ashiq** reports on how it also offers hope to locals and their economy

Excavation for the Zojila Tunnel was carried out at an altitude of 2,000 metres on the Kashmir side and 3,310 metres on the Ladakh side. The tunnel is expected to be operational by 2028. **IRIAN NESSAR**

IN THE ECONOMY
On June 9, when the 13.14-kilometre-long Zojila Tunnel witnessed a construction breakthrough, Muhammad Shahi Sagar, 50, and Ashiq Wazir, 30, unknown to each other, experienced both relief and sadness. Relief that they and their friends will, in a couple of years, be able to travel between Ladakh's Drass district and the Kashmir Valley relatively free of the fear of dangerous terrain. Sadness, because they had both lost loved ones in the treacherous Zojila Pass.

The Zojila Tunnel bypasses the pass that runs across 30 km, cutting through the vertical, craggy Himalayan range in Drass. In the district's Pandrass village, the mountains are parallel walls; there are no trees in sight at this altitude of 10,800 feet. In winter, the temperature drops to less than -25 degrees Celsius. In summer, the peaks are still surrounded by snow, but the melting glaciers relent. They spring out waterfalls from elevated mountain sides, adding to the roar of the Drass river below.

Shepherds from the plains converge on the high-altitude meadows dotted with wild grass and fresh-water bodies. The children are out in Pandrass High School, the sun shining brightly over them and their L-shaped, single-storey campus, but piercing gusts still make wearing a wind-breaker necessary. The night temperature continues to drop below freezing point, even in June. It is in these conditions that 1,200 people, working from a camp site, have been building the Zojila Tunnel, which will connect Batal in Kashmir's Ganderbal district and Minamarg in Ladakh's Drass, on National Highway-1. In the past, the pass was rife with tragedy.

"Shooting stones, snow slides, sudden temperature dips, and avalanches have killed travellers on the Zojila Pass for centuries," says Sagar, a teacher at the Pandrass High School, who is also an author of a book on the culture of the Shina tribe in Ladakh.

Workers and technicians, mostly from India, but also from abroad, put in 10 million safe working hours. They grappled with the geological uncertainties of young mountains, rock classification changing every couple of hundred metres, and water pouring out of crevices. Built at a cost of ₹6,800 crore, the excavation was carried out between the altitudes of 2,900 metres on the Kashmir side to 3,310 metres on the Ladakh side. It is expected to be operational by 2028, and is designed to stay open through the year.

Danger zone

Sagar tells a story about his colleagues, from 33 years ago. In 1993, the Pandrass High School, located 13 km away from the Zojila Pass, closed for its usual five-month-long winter vacation in December. Two teachers, Shahr Ahmad and Bashir Ahmad, decided to return home to the Kashmir valley. The Union Territory of Ladakh was part of the Kashmir division of the erstwhile State of Jammu and Kashmir till 2019.

"Winter had already set in. The two teachers left for home. The sub-zero temperatures near the Zojila Pass killed them. One body was recovered after a week and another body has not been traced to date. Locals feel wild animals may have taken it," says Sagar.

For Sagar, the tunnel has provided a new lease of life to people who live here. "When a local would fall sick and need specialised treatment, the nearest hospital is 270 km away, in Leh. Then the patient would be flown out to Delhi or Srinagar. With the tunnel, it'll be just a 14-km drive to Srinagar," says Sagar. The worries about vegetables, gas, and grocery stocks will be stories from the past.

SHOOTING STONES
Shooting stones, snow slides, sudden temperature dips, and avalanches have killed travellers on the Zojila Pass for centuries. Kargil is full of stories of loss and disappearances.

MUHAMMAD SHAHI SAGAR
Teacher, Pandrass High School, Drass district, Ladakh

This year on March 27, despite better road management and early warnings compared to the past, an avalanche killed seven persons and injured five others at the Zojila Pass. It was a sudden bright sun that triggered the rockfall around 12.30 p.m. One of the victims of the deadly Zojila Pass was Akbar Ali Shadab, a 36-year-old resident of Tharumsa Pashum village in Kargil. Shadab had just had a baby, six months before. He worked as a wildlife guard and was respected for his volunteerism.

"News flashed on social media about four vehicles being hit by an avalanche. We reached the spot in the evening. The rescue teams halted operations for the night. My uncle's body was found around 6 the next morning," says Wazir, the victim's nephew.

Now, the conversation around Zojila is changing. Sajad Kargili, in-charge of political affairs of the Jamiat Ul Ulama Isha Asharia, Kargil, an influential seminary, sees the tunnel as the "realisation of a decades-long dream of locals". He refers to the many leaders who through the years have asked at both the State and Central levels for the tunnel.

Kargil was joined by senior members of the seminary on June 9 to pay tribute "to all those who dedicated their lives to this cause but could not live to witness this historic moment". He remembers those who disappeared or died.

"This is not just an engineering milestone, but also a testament to sacrifices. The historic breakthrough stands as a landmark achievement in a long journey of struggle, hope, and determination. It opens a new chapter of connectivity, progress, and prosperity for the region," says Kargili. Up to 80% of those working on the site are locals. With the tunnel aiming to be open through winter, the possibility of tourism through the year has opened up.

Scaling heights

Ladakh's Zojila Pass has historically been daunting for India. During the India-Pakistan war of 1947, it was taken over by Pakistan and it took two months in 1948 to drive tanks in, between September and October, to defeat and evict the Pakistan Army. The war spurred construction work on the Zojila Pass to make it motorable. "After the 1962 India-China war, the focus again shifted

to the Zojila Pass and its importance. The road saw further widening and attention," says Sagar. From 2005 to 2019, attempts to award the project failed four times. The project was shelved in 2019 due to financial losses of the company tendered to do the work. The work on the Zojila Tunnel saw a flip in its speed after India and China engaged in a face-off in Galwan on June 15-16 in 2020, and saw casualties on both sides for the first time since the wars of the 1960s.

On October 15, 2020, the construction of the Zojila Tunnel was started by the National Highways and Infrastructure Development Corporation Limited (NHIDCL) and Megha Engineering & Infrastructures Ltd (MEIL). The first blasting at Nilgiri Tunnel was held on October 14, 2020. Approach roads, bridges, the Nilgiri twin tunnels, cut-and-cover works, and snow gallery to protect the tunnel from heavy snowfall were constructed to set the stage for the tunnel work.

Six years down the line, the Zojila Tunnel is tipped to be the world's longest single-tube bidirectional road tunnel at an altitude of 11,578 feet. The main tunnel is U-shaped and is 9.5 metres wide and 7.57 metres in height.

Harsh weather conditions coupled with the mountain's rock composition posed a major challenge for engineers and workers. The rock classification changed 67 times across the 13.14 km stretch and shifted constantly between good and poor formations. The highly volatile geology was managed with the expertise of skilled crew.

"The Himalayas are considered young mountains. They are just 700 million years old," says Yousef Es'haghpour Rahimabadi, an Iranian engineer who works for the NHIDCL. "The rocks have not solidified or condensed fully yet. We had to work on eight to 10 fault zones, which needed special measures. Water seepage has been a major concern," he adds.

He has 29 years of experience in building tunnels. "I mostly worked in the Middle East," says Rahimabadi, who provided consultation on design as well as at-site support to the project.

Rahimabadi says the age of the tunnel is set to be 100 years. During the construction of the project, workers braved temperatures of -20 degree Celsius for nearly 100 days a year. A base camp was established for over 1,000 people, which provided food, climate-appropriate food, medical facilities, transportation, and amenities to sustain round-the-clock operations.

A Spanish company also joined the project to provide expert solutions to problems posed by the geology of the mountains.

Over the last five years, the project site faced five major avalanches, two in 2023, two in 2024, and one in 2025. On January 12, 2023, a severe avalanche hit the Sarbal area close to the Nilgiri Tunnels. On January 15, 2023, up to 172 workers were stranded in an avalanche.

To combat heavy snow accumulation in winter, a fleet of small and large snow blowers was deployed. This ensured uninterrupted construction work while simultaneously keeping the highway open for regular vehicular movement. "Procurement was also a major challenge. It took three months to bring gantries to Minamarg, because the bypass in Sonamarg was closed for winter," says Rahimabadi.

Gantries are a huge adaptable moulds designed for shaping concrete within a tunnel excavation. Rahimabadi credits the New Austrian Tunneling Method (NATM), which applies the sequential excavation method. "The NATM method uses the blast-and-go-ahead technique. We worked in two shifts in 24 hours to ensure that the deadline was met," says Rahimabadi.

The tunnel has vertical structures to provide fresh air ventilation and emergency safety since there is no separate escape route. It offers automatic and emergency lighting, emergency phone and radio connectivity, and message signalling to ensure the safety of travellers. Vehicles will be able to travel at a speed of 80 km per hour through it. From two hours to cross the Zojila Pass, it will take travellers 20 to 40 minutes to cross the mighty and arduous Himalayan range.

Change at the press of a button

Harpal Singh, chief operating officer of Megha Engineering, recalls spotting batches of bears liberating close to tunnel mouths in winter. "We would ignore each other. We'd be trying to disturb their habitat." He also talks about the desolate landscape, when people from Sonamarg would leave in winter. "We'd see only the police and the Army patrolling," says Singh.

Zojila Tunnel has an immense strategic value for India. India shares a 3,488-km-long border with China, of which 1,597 km runs through Ladakh. Besides the threats posed by China to the east, Pakistan is to the west of Ladakh, beyond the Line of Control.

"Earlier, the Zojila Pass would face closure for five to six months due to snowfall. This tunnel will provide an all-weather link with Ladakh and help the Army," says Singh.

The completion of the Zojila Tunnel project has come at a time when massive military activities are being noted on the borders of Ladakh by China and in Gilgit and Baltistan by Pakistan.

When Union Minister of Road Transport and Highways Nitin Gadkari on June 9 pressed the button for the final blast inside the tunnel, he underlined the strategic value of the tunnel. "From the perspective of national security, this project will prove to be a gamechanger. With round-the-year connectivity, the movement of the Indian Army, as well as the supply of Army materials, equipment, and logistics, will become faster, safer, and more effective, thereby strengthening the country's strategic preparedness," he said.

Above the booming government voice is that of a school teacher. "The tunnel may dilute local culture. Modernity will pose a challenge to old ways of life in Drass. Tourism will introduce new ways of construction," says a worried Sagar.

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The tunnel in numbers

30.894 km
Total project length, including tunnel roads and bridges

13.14 km
Zojila main tunnel length

460 metres
Length of three bridges

474.30 metres
India's longest shaft, for ventilation and emergency

2.35 km
off-ramp cut-and-cover structures for protection from landslides

2.35 km
off-ramp cut-and-cover structures for protection from landslides

An inspection inside the Zojila Tunnel, at Minamarg in Ladakh, towards the Eastern Portal of the project. **IRIAN NESSAR**

15J6. In Zojila, light at the end of the tunnel

जोजिला में, सुरंग के अंत में रोशनी

- It is in these conditions that **1,200 people**, working from a camp site, have been building the **Zojila Tunnel**, which will connect **Baltal** in Kashmir's **Ganderbal district** and **Minamarg** in Ladakh's Drass, on **National Highway-1**.

इन्हीं परिस्थितियों में शिविर स्थल से कार्य कर रहे **1,200 लोग जोजिला सुरंग** का निर्माण कर रहे हैं, जो **राष्ट्रीय राजमार्ग-1** पर कश्मीर के गंदरबल जिले के बालटाल को लद्दाख के द्रास स्थित **मीनामार्ग** से जोड़ेगी।

GS Paper III: Science and Technology		15 June 2026
TOPICS COVERED		
15J6	Odisha village to get crocodile alert system under 'Smart Village' plan स्मार्ट विलेज' योजना के तहत ओडिशा के एक गांव में मगरमच्छ चेतावनी प्रणाली स्थापित की जाएगी	
15J6	Deaths in Brazil raise concerns about India's dengue vaccine, DengiAll ब्राज़ील में हुई मौतों ने भारत के डेंगू टीके, डेंगीऑल, को लेकर चिंताएँ बढ़ा दी हैं	
15J6	The giant world of fungi कवकों (फंगी) की विशाल दुनिया	

Odisha village to get crocodile alert system under 'Smart Village' plan

GS III: S&T
Satyasundar Barik
BHUBANESWAR

As the Council of Scientific and Industrial Research (CSIR) accelerates the deployment of technologies in Kusunpur, a remote village in Odisha's Kendrapara district, as part of the 'Smart Village' initiative, residents may soon receive alerts whenever crocodiles stray dangerously close to their homes.

The CSIR laboratories are planning to introduce an artificial intelligence (AI)-enabled wild animal detection and alert system. The system is likely to be installed at two key entry points to the village.

Kendrapara has logged one of the worst rates of human-crocodile conflicts in the State, with more than 20 fatalities reported over the past four years.

Kusunpur is set to witness a comprehensive infrastructure upgrade, in-



CBRI Director Pradeep Kumar Ramacharla interacting with villagers in Kusunpur on Sunday. SPECIAL ARRANGEMENT

cluding a renovated water gate facility, an underground drainage system, a reconstructed community building, community toilets, and a revamped cremation centre. Roads will be developed using innovative methods, including cold mix technology, waste plastic road technology, and cement grouted bituminous mix.

Under the initiative, the village is expected to

emerge as a hub for green livelihoods. The initiative could generate a range of green jobs, while encouraging local entrepreneurs to explore sustainable business opportunities.

Aligned with the CSIR's guiding 'lab to land' principle, a suite of technologies has been proposed for deployment in the village. These include dry flower processing, production of value-added crispy fruits

through freeze-drying, and the development of nutritious food products to combat malnutrition.

Other initiatives include biodegradable tableware, small-scale processing units, herbal floor-cleaning liquids, mosquito repellent lotions, and scented candles made from natural beeswax. Plans also include the installation of brick and block-making machines, village-scale rice and green gram milling units, and a scientifically designed parboiled rice processing unit.

"Over the next three years, scientists from 17 CSIR laboratories will visit Kusunpur to ensure smooth deployment of these technologies for the village's overall development," CSIR-Central Building Research Institute (CBRI) Director Pradeep Kumar Ramacharla, who visited the village on Sunday, said.



15J6. Odisha village to get crocodile alert system under 'Smart Village' plan 'स्मार्ट विलेज' योजना के तहत ओडिशा के एक गांव में मगरमच्छ चेतावनी प्रणाली स्थापित की जाएगी

- As the Council of Scientific and Industrial Research (CSIR) accelerates the deployment of technologies in Kusunpur, a remote village in Odisha's Kendrapara district, as part of the 'Smart Village' initiative, residents may soon receive alerts whenever crocodiles stray dangerously close to their homes.

वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद द्वारा ओडिशा के केंद्रापाड़ा जिले के दूरस्थ गाँव कुसुनपुर में 'स्मार्ट विलेज' पहल के अंतर्गत प्रौद्योगिकियों के क्रियान्वयन को गति दी जा रही है। इसके परिणामस्वरूप ग्रामीणों को शीघ्र ही उस समय चेतावनी संदेश प्राप्त हो सकेंगे जब मगरमच्छ उनके घरों के निकट खतरनाक रूप से पहुँच जाएँगे।

- The CSIR laboratories are planning to introduce an artificial intelligence (AI)-enabled wild animal detection and alert system.

परिषद की प्रयोगशालाएँ कृत्रिम बुद्धिमत्ता आधारित वन्य जीव पहचान एवं चेतावनी प्रणाली स्थापित करने की योजना बना रही हैं।

- Kendrapara has logged one of the worst rates of human-crocodile conflicts in the State, with more than 20 fatalities reported over the past four years.

केंद्रापाड़ा जिले में राज्य के सबसे गंभीर मानव-मगरमच्छ संघर्षों में से एक दर्ज किया गया है, जहाँ पिछले चार वर्षों में 20 से अधिक लोगों की मृत्यु हुई है।

- Roads will be developed using innovative methods, including cold mix technology, waste plastic road technology, and cement grouted bituminous mix.

सड़कों का निर्माण कोल्ड मिक्स तकनीक, अपशिष्ट प्लास्टिक सड़क तकनीक तथा सीमेंट ग्राउटेड बिटुमिनस मिश्रण जैसी नवाचार आधारित तकनीकों से किया जाएगा।

- These include dry flower processing, production of value-added crispy fruits through freeze-drying, and the development of nutritious food products to combat malnutrition.

इनमें सूखे फूलों का प्रसंस्करण, फ्रीज़-ड्राइंग तकनीक द्वारा मूल्यवर्धित कुरकुरे फलों का उत्पादन तथा कुपोषण से निपटने के लिए पौष्टिक खाद्य उत्पादों का विकास शामिल है।

- Other initiatives include biodegradable tableware, small-scale processing units, herbal floor-cleaning liquids, mosquito repellent lotions, and scented candles made from natural beeswax.

अन्य पहलों में जैव अपघटनीय भोजन पात्र, लघु प्रसंस्करण इकाइयाँ, हर्बल फर्श सफाई द्रव, मच्छर प्रतिरोधी लोशन तथा प्राकृतिक मधुमक्खी मोम से निर्मित सुगंधित मोमबतियाँ शामिल हैं।



Deaths in Brazil raise concerns about India's dengue vaccine, DengiAll

Brazilian authorities have stressed that the 42 cases of severe adverse events represent only 0.008% of half-a-million vaccinated; there is no doubt that it is a small risk at the population level; however, at the individual level even one life lost to a severe adverse event is one too many

ESSAYS

S. Swaminathan

The recent deaths of two people in Brazil during its dengue vaccination campaign, leading to the shot's suspension on June 8, is a crucial wake-up call for India. This is because the dengue vaccine in Brazil, Butantan-DV, is pretty similar, if not identical, to India's upcoming dengue vaccine, DengiAll.

Both vaccines were several years in the making. Both have live but weakened (attenuated) versions of the dengue viruses (DENVs). And both vaccines are said to be tetravalent because each vaccine is a physical mixture of four live, weakened DENVs.

DENVs come in four versions called serotypes: DENV-1, 2, 3 and 4. All four serotypes are known to be prevalent in Brazil and India. Each DENV serotype has an outer shell adorned with specialised envelope proteins, called E proteins – akin to the spike protein of coronaviruses. Even though the four DENV serotypes are very similar, their E proteins are different enough to warrant immunisation against each of the four serotypes.

When weakened DENV is used in a vaccine, it will prompt two broad types of antibodies: type-specific antibodies and cross-reactive antibodies. Type-specific antibodies are often made in small amounts and recognise only one particular serotype (based on its E proteins) and excel at blocking infections by that serotype alone.

On the other hand, the cross-reactive antibodies are made usually in large amounts and can recognise any of the four serotypes and block an infection – provided they are present at adequate levels. When their levels drop, the cross-reactive antibodies don't just fail to block a new DENV infection; they enhance it, leading to a severe and potentially fatal form of dengue. This phenomenon is called antibody-dependent enhancement (ADE).

The risk of ADE during if DengiAll will manifest a similar risk when it is rolled out in India. Butantan-DV and DengiAll are both based on a technology developed at the



This photograph taken on January 29 shows chief scientific officer Syed Khalid Ali explaining the development of the DengiAll vaccine's clinical sample at Panacea Biotech, a pharmaceutical company in New Delhi. AFP

U.S. National Institutes of Health (NIH). Over many years, scientists weakened each DENV serotype to make monovalent vaccines, assessed each one for its capacity to induce an immune response without causing disease, and finally mixed all four monovalent vaccine viruses to generate tetravalent vaccines. Two of them, called TV003 and TV005, and the monovalent vaccine viruses were licensed to Instituto Butantan in Brazil and Panacea Biotech in India, among others, for further development.

Butantan-DV is not the first dengue vaccine to be linked to such events. A little over a decade ago, Sanofi Pasteur developed the first tetravalent dengue vaccine to be licensed. It differed from the NIH's vaccines because the four weakened serotypes were hybrid viruses, each covered on its surface with the E protein of one of the DENV serotypes (plus another protein).

This shot, called Dengvaxia, was given to more than 8 lakh children in the Philippines, a dengue-endemic country like Brazil and India. Severe adverse events occurred three years after vaccination.

Further study revealed Dengvaxia worked like a monovalent vaccine, provoking antibodies to only DENV-4. That is, mixing four live yet weakened viruses didn't automatically ensure tetravalent immunity. There is no clear answer why.

The severe adverse events linked to Butantan-DV thus raise many questions. Is

Once DengiAll is launched, the regulator must implement a robust pharmacovigilance programme for an extended duration to check for viruses, antibodies, and other parameters

Butantan-DV really functionally tetravalent? Is there a possibility of viral interference compromising its functionality? Could ADE be responsible for the deaths?

There was also a lacuna in the vaccine efficacy data collected in the phase 3 trials. Reports in January 2024, November 2024, and March 2026 indicated that Butantan-DV's efficacy against DENV-3 and DENV-4 is unknown as these serotypes were not prevalent in Brazil at the time of the trials.

Panacea Biotech's DengiAll phase 3 trials, together with the Indian Council of Medical Research, completed its enrollment target of 10,335 healthy volunteers in January this year. The trial began in August 2024; its participants will be followed for two years post-vaccination. Once all the data have been analysed, the company will approach the drug regulator for market approval.

There is no solid reason to deny that DengiAll may not face the potentially fatal issues that have come up with Butantan-DV. However, India can take some proactive actions ahead of

DengiAll's rollout. First, Panacea must analyse a representative subset of sera from vaccinated volunteers for type-specific antibodies against all four serotypes. And the regulator must ensure such data are available and rules out the risk of ADE.

Next, once DengiAll is launched, the regulator must implement a robust pharmacovigilance programme for an extended duration. Vaccine recipients must be clinically monitored periodically and their blood must be collected at regular intervals to check for viruses, antibodies, and other parameters to implement remedial measures quickly. Continuous real-world monitoring is key to identifying rare or long-term adverse events.

The ADE concerns also apply to another tetravalent dengue vaccine, Qdenga, which is also a physical mix of four weakened versions of the DENV serotypes. Japan-based Takeda markets it and its India approval is imminent.

Brazilian authorities have stressed that the 42 cases of severe adverse events out of half-a-million vaccinated represent only 0.008%. There is no doubt it is a small risk at the population level. At the individual level, however, even one life lost to a severe adverse event is one too many.

(S. Swaminathan is retired professor of biology from BITS Pilani-Hyderabad and a former scientist in the area of dengue vaccinology at ICGEB, New Delhi. ssn225@gmail.com)

THE GIST

▼ The dengue vaccine in Brazil, Butantan-DV, is pretty similar, if not identical, to India's upcoming dengue vaccine, DengiAll. Both have live but weakened versions of the dengue viruses (DENVs)

▼ Both vaccines are said to be tetravalent because each vaccine is a physical mixture of four live, weakened DENVs

▼ In Brazil's dengue vaccination campaign, of 42 vaccine recipients who displayed serious side-effects, two people died and one had to receive intensive care

▼ Medical researchers should look into whether this could be due to antibody-dependent enhancement. They should also clarify if DengiAll will manifest a similar risk when it is rolled out in India

15J6. Deaths in Brazil raise concerns about India's dengue vaccine, DengiAll ब्राज़ील में हुई मौतों ने भारत के डेंगू टीके, डेंगीऑल, को लेकर चिंताएँ बढ़ा दी हैं

- This is because the **dengue vaccine in Brazil, Butantan-DV**, is pretty similar, if not identical, to **India's upcoming dengue vaccine, DengiAll**.
ऐसा इसलिए है क्योंकि ब्राज़ील का **Butantan-DV** डेंगू टीका, यदि पूर्णतः समान नहीं भी है, तो भी भारत के आगामी डेंगू टीके **DengiAll** से काफी हद तक मिलता-जुलता है।
- **Both have live but weakened (attenuated) versions of the dengue viruses (DENVs)**.
दोनों में डेंगू वायरस (DENVs) के जीवित लेकिन कमजोर (attenuated) रूप सम्मिलित हैं।
- And **both vaccines are said to be tetravalent because each vaccine is a physical mixture of four live, weakened DENVs**.
और दोनों टीकों को **टेट्रावैलेंट (tetravalent)** कहा जाता है क्योंकि प्रत्येक टीका चार जीवित एवं कमजोर किए गए DENVs के भौतिक मिश्रण से बना है।

- DENVs come in four versions called **serotypes: DENV-1, -2, -3 and -4**.
DENVs के चार प्रकार होते हैं जिन्हें **सीरोटाइप (serotypes)** कहा जाता है: DENV-1, DENV-2, DENV-3 और DENV-4।
- All four serotypes are known to be prevalent in Brazil and India.
ये चारों सीरोटाइप **ब्राज़ील और भारत** में प्रचलित पाए जाते हैं।
- Each DENV serotype has an outer shell adorned with specialised **envelope proteins**, called **E proteins** — akin to the **spike protein** of coronaviruses.
प्रत्येक DENV सीरोटाइप की बाहरी सतह पर विशेष प्रकार के **एनवेलप प्रोटीन (envelope proteins)** होते हैं, जिन्हें **E प्रोटीन** कहा जाता है — जो कोरोनावायरस के **स्पाइक प्रोटीन** के समान होते हैं।
- Even though the four DENV serotypes are very similar, their **E proteins** are different enough to warrant immunisation against each of the four serotypes.
यद्यपि चारों DENV सीरोटाइप बहुत समान हैं, फिर भी उनके **E प्रोटीन** इतने भिन्न हैं कि प्रत्येक सीरोटाइप के विरुद्ध अलग-अलग प्रतिरक्षण आवश्यक हो जाता है।
- When weakened DENV is used in a vaccine, it will prompt two broad types of **antibodies: type-specific antibodies and cross-reactive antibodies**.
जब कमजोर किए गए DENV का उपयोग टीके में किया जाता है, तब यह दो व्यापक प्रकार की **प्रतिरक्षी (antibodies)** उत्पन्न करता है: **प्रकार-विशिष्ट प्रतिरक्षी (type-specific antibodies)** तथा **क्रॉस-रिएक्टिव प्रतिरक्षी (cross-reactive antibodies)**।
- This phenomenon is called **antibody-dependent enhancement (ADE)**.
इस घटना को **एंटीबॉडी-निर्भर संवर्धन (Antibody-Dependent Enhancement - ADE)** कहा जाता है।
- The **risk of ADE during dengue vaccination is considered a serious adverse event**.
डेंगू टीकाकरण के दौरान **ADE** का जोखिम एक गंभीर प्रतिकूल घटना माना जाता है।
- These side-effects included **severe abdominal pain, persistent vomiting, and bleeding**, none of which the **phase 3 clinical trials** revealed.
इन दुष्प्रभावों में गंभीर पेट दर्द, लगातार उल्टी तथा रक्तस्राव शामिल थे, जिनमें से किसी का भी उल्लेख **फेज-3 क्लिनिकल परीक्षणों (Phase 3 Clinical Trials)** में नहीं हुआ था।
- These signs are reminiscent of **the symptoms of severe dengue**.
ये लक्षण **गंभीर डेंगू (severe dengue)** के लक्षणों से मिलते-जुलते हैं।
- Butantan-DV and DengiAll are both based on a technology developed at the U.S. National Institutes of Health (NIH)**.
Butantan-DV और DengiAll दोनों ही अमेरिकी राष्ट्रीय स्वास्थ्य संस्थान (U.S. National Institutes of Health - NIH) द्वारा विकसित प्रौद्योगिकी पर आधारित हैं।
- Over many years, scientists weakened each DENV serotype to make **monovalent vaccines**, assessed each one for its capacity to induce an immune response without causing disease, and finally mixed all four monovalent vaccine viruses to generate **tetavalent vaccines**.
कई वर्षों में वैज्ञानिकों ने प्रत्येक DENV सीरोटाइप को कमजोर करके **मोनोवैलेंट टीके (monovalent vaccines)** विकसित किए, रोग उत्पन्न किए बिना प्रतिरक्षा प्रतिक्रिया उत्पन्न करने की उनकी क्षमता का मूल्यांकन किया, और अंततः चारों मोनोवैलेंट टीका-वायरसों को मिलाकर **टेट्रावैलेंट टीके (tetavalent vaccines)** तैयार किए।
- A little over a decade ago, **Sanofi Pasteur** developed the first **tetavalent dengue vaccine** to be licensed.
लगभग एक दशक से कुछ अधिक समय पहले, **Sanofi Pasteur** ने लाइसेंस प्राप्त करने वाला पहला **टेट्रावैलेंट डेंगू टीका** विकसित किया था।
- It differed from the **NIH's vaccines** because the four weakened serotypes were hybrid viruses, each covered on its surface with the **E protein** of one of the DENV serotypes (plus another protein).
यह **NIH** के टीकों से भिन्न था क्योंकि इसके चारों कमजोर किए गए सीरोटाइप संकर (hybrid) वायरस थे, जिनकी सतह पर DENV सीरोटाइपों में से किसी एक का **E प्रोटीन** (तथा एक अन्य प्रोटीन) उपस्थित था।



- This shot, called **Dengvaxia**, was given to more than **8 lakh children** in the **Philippines**, a dengue-endemic country like Brazil and India.
Dengvaxia नामक यह टीका **फिलीपींस** में, जो ब्राज़ील और भारत की तरह डेंगू-प्रभावित देश है, **8 लाख से अधिक बच्चों** को दिया गया था।
- Severe adverse events occurred three years after vaccination.**
टीकाकरण के तीन वर्ष बाद गंभीर प्रतिकूल घटनाएँ सामने आईं।
- Further study revealed **Dengvaxia** worked like a **monovalent vaccine**, provoking antibodies to only **DENV-4**.
आगे के अध्ययन से पता चला कि **Dengvaxia** एक **मोनोवैलेंट टीके** की तरह कार्य करता था और केवल **DENV-4** के विरुद्ध प्रतिरक्षा उत्पन्न करता था।
- Continuous real-world monitoring** is key to identifying rare or long-term adverse events.
निरंतर वास्तविक-परिस्थिति निगरानी (Continuous Real-World Monitoring) दुर्लभ अथवा दीर्घकालिक प्रतिकूल घटनाओं की पहचान के लिए अत्यंत महत्वपूर्ण है।
- The **ADE concerns** also apply to another **tetravalent dengue vaccine, Qdenga**, which is also a physical mix of four weakened versions of the DENV serotypes.
ADE संबंधी चिंताएँ एक अन्य **टेट्रावैलेंट डेंगू टीके, Qdenga**, पर भी लागू होती हैं, जो DENV सीरोटाइपों के चार कमजोर रूपों का भौतिक मिश्रण है।
- Japan-based Takeda** markets it and its India approval is imminent.
जापान स्थित Takeda इसका विपणन करती है और भारत में इसकी स्वीकृति शीघ्र मिलने की संभावना है।

The giant world of fungi

GS III: S&T
Vasudevan Mukunth

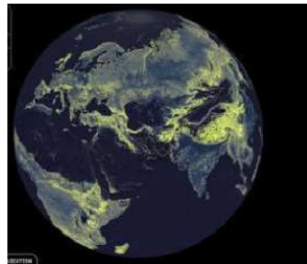
A new study published in *Science* has reported the first global map of the earth's vast underground network of arbuscular mycorrhizal (AM) fungi. These fungi have sustained plant life for millions of years but their scale and distribution has been largely invisible until now.

Using machine learning and data from more than 16,000 soil cores, an international research team has revealed that topsoils around the world contain some 110 quadrillion km of fungal hyphae — a distance equal to nearly a billion trips from the earth to the sun.

The AM networks also weigh around 300 million tonnes of carbon, which is four- to six-times the weight of the entire human population.

By forming symbiotic relationships with 70% of plant species, trading nutrients for carbon, the AM networks sequester an estimated 4 billion tonnes of CO₂-equivalent a year, or roughly 11% of all human-related carbon emissions.

The study also identified biodiversity hotspots and threats to them. Grassland ecosystems like those in South Sudan, the Tibetan plateau, and India's Banni grasslands house 40% of the world's AM fungal networks. However, the study warned that cropland typically has a 50% lower fungal density relative to wild



A global map of the density of AM fungi. TRUTH & BEAUTY/MORITZ STEFANER JUSTIN STEWART, SPUN

ecosystems, and because grasslands are being converted to farms four-times faster than forests, these ecosystems are at extreme risk.

By quantifying the extent of this "living infrastructure", as the Society for the Protection of Underground Networks put it, the work hopes to move fungi from the periphery of environmental policy to the centre of climate action.

For feedback and suggestions for 'Science', please write to science@thehindu.co.in with the subject 'Daily page'

15J6. The giant world of fungi

कवकों (फंगी) की विशाल दुनिया

- A new study published in *Science* has reported the **first global map of the earth's vast underground network of arbuscular mycorrhizal (AM) fungi**.

Science पत्रिका में प्रकाशित एक नए अध्ययन ने पृथ्वी के विशाल भूमिगत **आर्बस्कुलर माइक्रोराइज़ल (AM) कवकों** के नेटवर्क का पहला वैश्विक मानचित्र प्रस्तुत किया है।

- These fungi have sustained plant life for millions of years but their scale and distribution has been largely invisible until now.**

ये कवक लाखों वर्षों से पौधों के जीवन को सहारा देते रहे हैं, किंतु इनका विस्तार और वितरण अब तक काफी हद तक अदृश्य रहा है।

- Using machine learning and data from more than **16,000 soil cores**, an international research team has revealed that topsoils around the world contain some **110 quadrillion km of fungal hyphae** — a distance equal to nearly a

billion trips from the earth to the sun.

मशीन लर्निंग तथा **16,000 से अधिक मृदा नमूनों (soil cores)** के आंकड़ों का उपयोग करते हुए एक अंतरराष्ट्रीय शोध दल ने खुलासा किया है कि विश्वभर की ऊपरी मिट्टी में लगभग **110 क्वाड्रिलियन किलोमीटर फंगल हाइफी (fungal hyphae)** मौजूद हैं — यह दूरी पृथ्वी से सूर्य तक लगभग एक अरब यात्राओं के बराबर है।

- The **AM networks** also weigh around **300 million tonnes of carbon**, which is four- to six-times the weight of the entire human population.



AM नेटवर्क में लगभग 300 मिलियन टन कार्बन मौजूद है, जो संपूर्ण मानव आबादी के कुल भार से चार से छह गुना अधिक है।

- By forming **symbiotic relationships** with **70% of plant species**, trading nutrients for carbon, the **AM networks** sequester an estimated **4 billion tonnes of CO2-equivalent a year**, or roughly **11% of all human-related carbon emissions**.

70% पौधों की प्रजातियों के साथ सहजीवी संबंध (symbiotic relationships) स्थापित करके तथा पोषक तत्वों के बदले कार्बन प्राप्त करके, AM नेटवर्क प्रतिवर्ष अनुमानित 4 अरब टन CO2-समतुल्य कार्बन का अवशोषण करते हैं, जो मानव-जनित कुल कार्बन उत्सर्जन का लगभग 11% है।

- The study also identified **biodiversity hotspots and threats to them**. अध्ययन ने जैव विविधता हॉटस्पॉट्स (biodiversity hotspots) तथा उनके समक्ष उपस्थित खतरों की भी पहचान की है।
- Grassland ecosystems** like those in **South Sudan**, the **Tibetan plateau**, and **India's Banni grasslands** house **40% of the world's AM fungal networks**. दक्षिण सूडान, तिब्बती पठार (Tibetan Plateau) तथा भारत के बन्नी घासस्थल (Banni Grasslands) जैसे घासस्थलीय पारितंत्र (grassland ecosystems) विश्व के 40% AM फंगल नेटवर्क को आश्रय प्रदान करते हैं।
- However, the study warned that **cropland** typically has a **50% lower fungal density** relative to wild ecosystems, and because grasslands are being converted to farms **four-times faster than forests**, these ecosystems are at extreme risk. हालाँकि, अध्ययन ने चेतावनी दी है कि कृषि भूमि (cropland) में सामान्यतः प्राकृतिक पारितंत्रों की तुलना में 50% कम फंगल घनत्व पाया जाता है, और क्योंकि घासस्थलों को वनों की तुलना में चार गुना अधिक तीव्र गति से कृषि भूमि में परिवर्तित किया जा रहा है, इसलिए ये पारितंत्र अत्यधिक जोखिम में हैं।
- By quantifying the extent of this **"living infrastructure"**, as the **Society for the Protection of Underground Networks** put it, the work hopes to move fungi from the periphery of environmental policy to the centre of climate action.

Society for the Protection of Underground Networks द्वारा वर्णित इस "जीवित अवसंरचना (living infrastructure)" के विस्तार का परिमाणीकरण करके, यह अध्ययन कवकों को पर्यावरणीय नीति के हाशिये से निकालकर जलवायु कार्रवाई (climate action) के केंद्र में लाने की आशा करता है।

GS Paper III: Internal Security		15 June 2026
TOPICS COVERED		
15J6	CISF trains 7,120 personnel in counter-drone operations post-Operation Sindoor	ऑपरेशन सिंदूर के बाद सीआईएसएफ ने 7,120 कर्मियों को ड्रोन-रोधी अभियानों का प्रशिक्षण दिया
15J6	Can India protect its seafarers in the Gulf?	क्या भारत खाड़ी क्षेत्र में अपने नाविकों (सीफेरर्स) की सुरक्षा कर सकता है?
15J6	China's ability to launch direct missile strikes on Australia 'growing': report	ऑस्ट्रेलिया पर सीधे मिसाइल हमले करने की चीन की क्षमता बढ़ रही है: रिपोर्ट



CISF trains 7,120 personnel in counter-drone operations post-Operation Sindoor

GS III: Internal Security

Vijaita Singh
NEW DELHI

A year after Operation Sindoor, the Central Industrial Security Force (CISF) has trained over 7,000 personnel in drone and counter-drone operations, a CISF official said.

The training in conjunction with the Indian Air Force (IAF) was initiated amid the growing threat from unauthorised Unmanned Aerial Vehicles (UAVs).

The official said the CISF had been tasked with auditing the security of critical installations such as nuclear power plants and thermal power plants among others.

"It is imperative that the CISF personnel posted at vital installations are aware about the emerging threat scenario from UAVs. They should know how to identify and disable such flying



The training in conjunction was initiated amid the threat from Unmanned Aerial Vehicles.

objects. The training is going on an intensive scale," said the official.

A barrage of attacks by drones along the Pakistan border were thwarted by security forces in May 2025 after Operation Sindoor. So far, the CISF has trained 7,120 personnel in drone and counter-drone operations, which covered piloting the drones, aerial surveillance, mapping, and neutralisation of hostile

drones. The CISF was also in the process of establishing dedicated Drone Training Schools in Hyderabad, Bhilai and Behror, with advanced academic programmes planned alongside the Indian Institute of Technology (IIT), Kanpur and the Defence Institute of Advanced Technology (DIAT), Pune.

While combating terror and cyber threats, the CISF continued to be a crucial first responder for industrial disasters, the official said. Its dedicated Fire Wing successfully saving property worth ₹172.55 crore.

Acting on the Ministry of Home Affairs (MHA) directives, the CISF recently trained 450 State Fire Services personnel from 187 cities in advanced industrial firefighting and disaster management at its Fire Services Training Institute, Hyderabad.

15J6. CISF trains 7,120 personnel in counter-drone operations post-Operation Sindoor
ऑपरेशन सिंदूर के बाद सीआईएसएफ ने 7,120 कर्मियों को ड्रोन-रोधी अभियानों का प्रशिक्षण दिया

The official said the CISF had been tasked with auditing the security of critical installations such as nuclear power plants and thermal power plants among others.

अधिकारी ने बताया कि केंद्रीय औद्योगिक सुरक्षा बल को परमाणु ऊर्जा संयंत्रों, तापीय विद्युत संयंत्रों तथा अन्य महत्वपूर्ण प्रतिष्ठानों की सुरक्षा का आकलन करने का दायित्व सौंपा गया है।

"It is imperative that the CISF personnel posted at vital installations are aware about the emerging threat scenario from UAVs."

उन्होंने कहा कि महत्वपूर्ण प्रतिष्ठानों पर तैनात केंद्रीय औद्योगिक सुरक्षा बल के कर्मियों के लिए मानवरहित हवाई वाहनों से उत्पन्न हो रहे नए खतरों की जानकारी होना अत्यंत आवश्यक है।

- The CISF was also in the process of establishing dedicated Drone Training Schools in Hyderabad, Bhilai and Behror, with advanced academic programmes planned alongside the Indian Institute of Technology (IIT), Kanpur and the Defence Institute of Advanced Technology (DIAT), Pune.

केंद्रीय औद्योगिक सुरक्षा बल हैदराबाद, भिलाई और बहरोड़ में विशेष ड्रोन प्रशिक्षण विद्यालयों की स्थापना की प्रक्रिया में भी है, जहाँ भारतीय प्रौद्योगिकी संस्थान, कानपुर तथा रक्षा उन्नत प्रौद्योगिकी संस्थान, पुणे के सहयोग से उन्नत शैक्षणिक कार्यक्रम संचालित किए जाने की योजना है।

- While combating terror and cyber threats, the CISF continued to be a crucial first responder for industrial disasters, the official said.

अधिकारी ने कहा कि आतंकवाद और साइबर खतरों से निपटने के साथ-साथ केंद्रीय औद्योगिक सुरक्षा बल औद्योगिक आपदाओं में भी एक महत्वपूर्ण प्रथम प्रतिक्रिया बल के रूप में कार्य करता रहा है।

- Its dedicated Fire Wing successfully saving property worth ₹172.55 crore. इसके विशेष अग्निशमन प्रकोष्ठ ने सफलतापूर्वक 172.55 करोड़ रुपये मूल्य की संपत्ति को बचाया।
- Acting on the Ministry of Home Affairs (MHA) directives, the CISF recently trained 450 State Fire Services personnel from 187 cities in advanced industrial firefighting and disaster management at its Fire Services Training Institute, Hyderabad.



TELEGRAM CHANNEL: <https://t.me/patrioticIAS>
YOUTUBE CHANNEL: <https://www.youtube.com/@PatrioticIAS>
CONTACT: 9971932488



गृह मंत्रालय के निर्देशों के अनुसार केंद्रीय औद्योगिक सुरक्षा बल ने हाल ही में 187 शहरों के 450 राज्य अग्निशमन सेवा कर्मियों को हैदराबाद स्थित अग्निशमन सेवा प्रशिक्षण संस्थान में उन्नत औद्योगिक अग्निशमन तथा आपदा प्रबंधन का प्रशिक्षण प्रदान किया।

PATRIOTIC IAS



Can India protect its seafarers in Gulf?

How many Indian seafarers are working in the Gulf region? What happened to the three vessels attacked by the U.S. Navy? What sanctions were imposed on some ships? Does the foreign-flag status of the vessels limit India's options? Do international maritime laws protect civilian crews?

SS III Internal Security

EXPLAINER

M. Kalyanaraman

The story so far:

On June 12, after India summoned U.S. Embassy representative Jason Meeks and lodged its "strong protest" against U.S. missile attacks on merchant vessels carrying Indian crew members, U.S. Secretary of State Marco Rubio told External Affairs Minister S. Jaishankar that violations of the American blockade and "illicit transport of Iranian oil" would not be tolerated. Recalling his discussion with Mr. Rubio, Mr. Jaishankar posted on X: "I reiterated India's strong protest at the attacks by the U.S. Navy in the Gulf that killed three Indian mariners. Such lethal actions against commercial shipping are not justified."

How many Indians are working on merchant vessels globally?

There are an estimated 3.5 lakh Indian seafarers manning ships across the world. The Indian government estimates that more than half of them are in active service, mostly in foreign-flagged ships.

This means one in every six seafarers serving on large merchant ships worldwide is Indian. The International Maritime Organization (IMO) estimates that some 20,000 seafarers of all nationalities are stranded on ships in the Persian Gulf region. The DG Shipping of India estimated at the start of the crisis that some 23,000 Indian seafarers are serving in the broader Gulf region in various capacities and facilities, with the UAE accounting for more than half.

What happened to the three vessels targeted by the U.S.?

On June 8, 10, and 11, the U.S. Navy fired precision munitions – Hellfire missiles – on merchant vessels *Marivex*, *Settebello*, and *Jalveer*. The three were tankers carrying Indian crew. While no one was hurt in the case of *Marivex* and *Jalveer*, three Indian seafarers – one chief engineer, one engine fitter, and one deck cadet – died onboard *Settebello*. While *Marivex* was attacked off the coast of Duqm, some 400 nautical miles from the Strait of Hormuz, the others were attacked off the coast of Shinas in Oman, which is closer to the strait.

Videos put out by the United States Central Command (Centcom) show the engine rooms of the ships being hit as well as the steering compartments. These attacks damaged the vessels above the waterline, so water didn't rush in to sink them. But their ability to move and manoeuvre on their own was lost.

In its press releases, the U.S. Centcom has said the crew of *Settebello* and *Marivex* refused to comply with instructions and all of them violated the blockade by attempting to transport Iranian oil. *Marivex* attempted to sail to an Iranian port, it claimed.

While the *Marivex* crew is reported to have informed seafarers' unions that their ship was at anchor while attacked, *Settebello*'s manager, IOS Marine FZE, a firm registered in Ajman, has flatly contradicted the U.S. The company has said *Settebello* was stationary for nearly 10 days in the region. It said the ship had no communication from the U.S. Navy and had no connection with Iranian oil or ports.

What sanctions were imposed on these ships?

Marivex was sanctioned by the U.S. in



The Palau-flagged tanker MT *Settebello*, carrying 24 Indian seafarers, was attacked by U.S. forces off the coast of Oman near the Strait of Hormuz. Three Indian crew members were killed in the strike. ANI



Kamlawati Devi, mother of one of three Indian seafarers killed aboard the tanker MT *Settebello*, mourns at her home in Deoria, Uttar Pradesh, on June 12. REUTERS

December 2025 for Iranian connections. *Settebello* had been flagged by a U.S. non-profit advocacy organisation, United Against Nuclear Iran, for alleged Iranian links. U.S. sanctions are not binding on any other country besides the U.S., although the U.S. Treasury Department's sanctions make it difficult for the companies associated with the concerned ship to access the financial system and other business transactions. Quite often, sanctioned ships lose insurance cover, without which ports will not accept calls by the ships, and charterers will refuse to handle cargo through them.

There have been reports of non-compliance of these ships with some maritime regulations. Typically, such violations, not uncommon in merchant shipping, relate to safety aspects. And ships are typically given time to remedy them before the consequences of losing insurance cover can kick in.

Does the foreign-flag status of the vessels limit India's options?

They all carried foreign flags of convenience (FOCs) but had deep Indian links, including in ownership and management. In merchant shipping, ships are often registered in little-known nations with no infrastructure to rigorously supervise and monitor ships. Popular FOCs include Panama, Marshall

Islands, Liberia, and Guinea-Bissau. Such FOCs are also popular among ships transporting Russian and Iranian oil.

Yes, technically, an Indian flagged ship will provide legal sanction for possible action. The U.S., during the Iran-Iraq war, ordered many ships to change their flag to the U.S. so it could legally escort the ships in and out of the Strait of Hormuz. But the Indian Navy has acted against Houthis and Somali pirates to help Indian seafarers onboard foreign-flagged ships.

Further, *Marivex* and *Jalveer* were often serving Indian ports, facilitating India's enormous oil needs. Soon after the ceasefire was announced in early April, *Marivex* headed out of the Strait of Hormuz to call on Mangalore. *Jalveer* is a bitumen carrier – a special type of ship that carries tar-bitumen, popular in laying Indian roads.

Were other options available for the U.S.?

In the last week of April, the U.S. Navy boarded *Tifani*, a sanctioned very large crude carrier in the Indian Ocean past Sri Lanka. The ship had an Indian crew.

This week, U.K. forces boarded *Smyrtos* on the English Channel for its alleged links to drug cartels, Russian oil, and so on.

Merchant ships are defenceless. Typically, merchant ships have wireless

channels open for communication with nearby vessels and any instructions from governments and Navies and Coast Guard vessels are immediately complied with. Seafarers are trained to protect crew, cargo and the ship.

Somali pirates coming in small craft and carrying firearms could easily board and seize massive oil tankers. The only evasive action ships have against attackers is a high-pressure water jet they can direct at them.

What can India do to protect Indian seafarers in the region?

India did launch Operation Sankalp to protect merchant ships against Houthi attacks. Indian Navy and Coast Guard intervened to protect four merchant ships in 2024. India did take action against Somali pirates. But the belligerents in the Persian Gulf are the U.S. and Iran. Therefore, India's options are rather limited.

Does international maritime law adequately protect civilian crews?

The nodal agency for regulating global shipping is the IMO, a United Nations agency. Though the IMO has the means to regulate the technical, commercial, environmental and safety aspects of global shipping through consensus and rulemaking, it has often fallen short in protecting ships and seafarers. Quite often, national governments take unilateral action, and typical of an UN agency, the IMO has been unable to act to prevent or take remedial action.

The law governing the oceans is the United Nations Convention on the Law of the Sea (UNCLOS). Its acts and mandates are extensive and are an outcome of decades of negotiations and consensus-building. UNCLOS is thorough and considers various situations, including transits across straits such as the Hormuz. But many nations have not signed on to it. The U.S. refused to sign it on the grounds that UNCLOS considers the deep seabed as the commons. Iran has signed the convention but has not ratified it. There really is no overarching body for enforcement. Things are often left to the good sense of governments.

THE GIST

India has protested U.S. missile attacks on three merchant vessels carrying Indian crew in the Gulf, in which three Indian seafarers aboard *Settebello* were killed.

The U.S. says the vessels violated its blockade and were involved in transporting Iranian oil, but ship operators have disputed these claims and said some of the vessels were stationary when attacked.

With about 23,000 Indian seafarers in the Gulf region, India has limited options because the vessels were foreign-flagged, while international maritime bodies and laws have limited enforcement powers in such situations.

15J6. Can India protect its seafarers in the Gulf?

क्या भारत खाड़ी क्षेत्र में अपने नाविकों (सीफर्स) की सुरक्षा कर सकता है?

- There are an estimated **3.5 lakh Indian seafarers** manning ships across the world.
अनुमानतः **3.5 लाख भारतीय नाविक** विश्वभर के जहाजों पर कार्यरत हैं।
- This means **one in every six seafarers serving on large merchant ships worldwide is Indian**.
इसका अर्थ है कि विश्व के बड़े व्यापारिक जहाजों पर कार्यरत प्रत्येक छह नाविकों में से एक भारतीय है।
- The **International Maritime Organization** estimates that some **20,000 seafarers** of all nationalities are stranded on ships in the Persian Gulf region.
अंतरराष्ट्रीय समुद्री संगठन के अनुसार विभिन्न देशों के लगभग **20,000 नाविक** फ़ारस की खाड़ी क्षेत्र में जहाजों पर फँसे हुए हैं।

What happened to the three vessels targeted by the U.S.?

अमेरिका द्वारा निशाना बनाए गए तीन जहाजों के साथ क्या हुआ?

- On June 8, 10, and 11, the U.S. Navy fired precision munitions — Hellfire missiles — on merchant vessels **Marivex, Settebello, and Jalveer**.
8, 10 और 11 जून को अमेरिकी नौसेना ने **मारीवेक्स, सेट्टेबेलो और जलवीर** नामक व्यापारिक जहाजों पर सटीक प्रहार करने वाली **हेलफायर मिसाइलों** का उपयोग किया।
- The three were tankers carrying Indian crew.
ये तीनों भारतीय चालक दल वाले टैंकर जहाज थे।
- While no one was hurt in the case of Marivex and Jalveer, three Indian seafarers — one chief engineer, one engine fitter, and one deck cadet — died onboard Settebello.
मारीवेक्स और जलवीर में कोई हताहत नहीं हुआ, किन्तु **सेट्टेबेलो** पर तीन भारतीय नाविकों — एक मुख्य अभियंता, एक इंजन फिटर और एक डेक कैडेट — की मृत्यु हो गई।
- While Marivex was attacked off the **coast of Dugm**, some 400 nautical miles from the Strait of Hormuz, the others were attacked off the **coast of Shinas in Oman**, which is closer to the strait.
मारीवेक्स पर हमला **दुकम** तट के निकट, **हॉर्मुज़ जलडमरूमध्य** से लगभग 400 समुद्री मील दूर हुआ, जबकि अन्य दोनों जहाजों पर **ओमान के शिनास** तट के पास हमला किया गया, जो जलडमरूमध्य के अधिक निकट है।
- In its press releases, the U.S. Central Command has said the crew of Settebello and Marivex refused to comply with instructions and all of them violated the blockade by attempting to transport Iranian oil.
अपने आधिकारिक वक्तव्यों में अमेरिकी केंद्रीय सैन्य कमान ने कहा कि **सेट्टेबेलो और मारीवेक्स** के चालक दल ने निर्देशों का पालन करने से इनकार किया तथा सभी ने ईरानी तेल के परिवहन का प्रयास करके नाकाबंदी का उल्लंघन किया।
- Quite often, **sanctioned ships lose insurance cover, without which ports will not accept calls by the ships, and charterers will refuse to handle cargo through them**.
अक्सर प्रतिबंधित जहाज अपना बीमा संरक्षण खो देते हैं। ऐसी स्थिति में बंदरगाह उन्हें प्रवेश की अनुमति नहीं देते और माल परिवहन कराने वाले पक्ष उनके माध्यम से माल ढुलाई से इनकार कर देते हैं।
- **Popular flags of convenience include Panama, Marshall Islands, Liberia, and Guinea-Bissau**.
प्रचलित **सुविधाजनक ध्वजों** में **पनामा, मार्शल द्वीप, लाइबेरिया और गिनी-बिसाऊ** शामिल हैं।
- **Such flags are also popular among ships transporting Russian and Iranian oil**.
रूसी और ईरानी तेल का परिवहन करने वाले जहाज भी प्रायः ऐसे ध्वजों का उपयोग करते हैं।
- **Yes, technically, an Indian-flagged ship will provide legal sanction for possible action**.
हाँ, तकनीकी रूप से भारतीय ध्वज वाला जहाज भारत को संभावित कार्रवाई के लिए अधिक स्पष्ट कानूनी आधार प्रदान करता है।
- **Jalveer is a bitumen carrier — a special type of ship that carries tar-bitumen, popular in laying Indian roads**.
जलवीर एक बिटुमेन वाहक जहाज है, जो सड़क निर्माण में प्रयुक्त तारकोल-बिटुमेन का परिवहन करता है।

- Typically, merchant ships have wireless channels open for communication with nearby vessels and any instructions from governments and Navies and Coast Guard vessels are immediately complied with.
सामान्यतः व्यापारिक जहाजों के संचार माध्यम खुले रहते हैं और सरकारों, नौसेनाओं तथा तटरक्षक बलों द्वारा दिए गए निर्देशों का तत्काल पालन किया जाता है।
- India did launch **Operation Sankalp** to protect merchant ships against Houthi attacks.
भारत ने हूती हमलों से व्यापारिक जहाजों की सुरक्षा के लिए ऑपरेशन संकल्प प्रारम्भ किया था।

Does international maritime law adequately protect civilian crews?

क्या अंतरराष्ट्रीय समुद्री कानून नागरिक चालक दलों को पर्याप्त सुरक्षा प्रदान करता है?

- The nodal agency for regulating global shipping is the **International Maritime Organization**, a United Nations agency.
वैश्विक नौवहन को विनियमित करने वाली प्रमुख संस्था अंतरराष्ट्रीय समुद्री संगठन है, जो संयुक्त राष्ट्र की एक एजेंसी है।
- Though the organization has the means to regulate the technical, commercial, environmental and safety aspects of global shipping through consensus and rulemaking, it has often fallen short in protecting ships and seafarers.
यद्यपि इस संगठन के पास वैश्विक नौवहन के तकनीकी, वाणिज्यिक, पर्यावरणीय और सुरक्षा पहलुओं को विनियमित करने की क्षमता है, फिर भी जहाजों और नाविकों की सुरक्षा सुनिश्चित करने में यह अनेक बार अपर्याप्त सिद्ध हुआ है।
- The law governing the oceans is the **United Nations Convention on the Law of the Sea**.
महासागरों को नियंत्रित करने वाला प्रमुख विधिक ढाँचा संयुक्त राष्ट्र समुद्री कानून अभिसमय है।
- Its acts and mandates are extensive and are an outcome of decades of negotiations and consensus-building.
इसके प्रावधान और अधिकार व्यापक हैं तथा दशकों की वार्ताओं और सहमति निर्माण का परिणाम हैं।
- The convention is thorough and considers various situations, including transits across straits such as the Hormuz.
यह अभिसमय अत्यंत व्यापक है और हॉर्मुज़ जलडमरूमध्य जैसे मार्गों से पारगमन सहित विभिन्न परिस्थितियों को समाहित करता है।
- But many nations have not signed on to it.
किन्तु अनेक देशों ने इसे स्वीकार नहीं किया है।
- The U.S. refused to sign it on the grounds that the convention considers the deep seabed as the commons.
अमेरिका ने यह कहते हुए इस अभिसमय पर हस्ताक्षर नहीं किए कि इसमें गहरे समुद्री तल को वैश्विक साझा संपत्ति माना गया है।
- Iran has signed the convention but has not ratified it.
ईरान ने इस अभिसमय पर हस्ताक्षर तो किए हैं, किन्तु अभी तक उसका अनुमोदन नहीं किया है।
- There really is no overarching body for enforcement.
वास्तव में इसके प्रभावी प्रवर्तन के लिए कोई सर्वव्यापी वैश्विक प्राधिकरण मौजूद नहीं है।
- Things are often left to the good sense of governments.
अनेक मामलों में परिस्थितियाँ सरकारों के विवेक और जिम्मेदार आचरण पर ही निर्भर रह जाती हैं।



China's ability to launch direct missile strikes on Australia 'growing': report

GS III: Internal Security
Agence France-Presse
SYDNEY

China is capable of a direct missile strike on Australia and the threat is growing as Beijing amasses long-range and hypersonic weapons and builds islands in the South China Sea, an Australian think tank said on Sunday.

A Lowy Institute report found the main threat to Australia was from Chinese missiles fired from ships, submarines and a new intermediate-range ballistic missile that could reach the island continent from China.



On the watch: China test-fires an intercontinental ballistic missile into the Pacific Ocean, at an undisclosed location. FILE PHOTO

China's capacity to strike Australia would grow over the next decade as "the Dong Feng (DF)-27 intermediate-range ballistic

missile, and potentially a conventionally armed intercontinental ballistic missile, grow in service numbers", it said.

The DF-27 missile has a range of 5,000 to 8,000 kilometres, the U.S. military said in December.

"I think the growth of the People's Liberation Army is the most important thing to happen to Australian security since the collapse of the Soviet Union," said Sam Roggeveen, the director of the Lowy Institute's International Security Programme.

Australia reshaped its military strategy three years ago in response to China's rapid navy build-up, focusing on deterring an adversary from its northern approaches.

15J6. China's ability to launch direct missile strikes on Australia 'growing': report

ऑस्ट्रेलिया पर सीधे मिसाइल हमले करने की चीन की क्षमता बढ़ रही है: रिपोर्ट

- China's capacity to strike Australia would grow over the next decade as "the **Dong Feng (DF)-27 intermediate-range ballistic missile, and potentially a conventionally armed intercontinental ballistic missile, grow in service numbers**", it said.
रिपोर्ट में कहा गया है कि अगले दशक में ऑस्ट्रेलिया पर हमला करने की चीन की क्षमता बढ़ेगी क्योंकि डोंग फेंग (DF)-27 मध्यम दूरी की बैलिस्टिक मिसाइल और संभावित रूप से पारंपरिक हथियारों से लैस अंतरमहाद्वीपीय बैलिस्टिक मिसाइल की संख्या सेवा में बढ़ेगी।
- The **DF-27 missile has a range of 5,000 to 8,000 kilometres**, the U.S. military said in December.
अमेरिकी सेना ने दिसंबर में कहा था कि DF-27 मिसाइल की मारक क्षमता 5,000 से 8,000 किलोमीटर है।