



The Hindu Important News Articles & Editorial For UPSC CSE Friday, 02 May, 2025

Edition: International Table of Contents

Page 01	India gets U.S. support in fight	
Syllabus: GS 1 & 2: International	against terror	
Relations & Internal Security		
Page 01	Modi champions 'orange economy'	
Syllabus: GS 1,2 & 3: Art and	at WAVES	
Culture, Governance & Economy		
Page 03	Satavahana-era inscriptions found	
Syllabus : Prelims Fact	in Telangana's Peddapalli	
Page 10	How can India tap its natural	
Syllabus: GS 3: Science and	hydrogen potential?	
Technology		
Page 10	Can the Indus Waters Treaty be	
Syllabus: GS 2: International	suspended unilaterally?	
Relations		
Page 08 : Editorial Analysis:	Reviving a far-sighted but	
Syllabus: GS 2: Indian Polity	forgotten Bill mechanism	







Page 01: GS1 &2: International Relations & Internal Security

Following the Pahalgam terrorist attack, the United States has extended unequivocal support to India, affirming its right to self-defence. Simultaneously, U.S. officials are engaging diplomatically with both India and Pakistan to avoid escalation. This highlights the strategic triangle of India–Pakistan–U.S. relations amid rising regional tensions.

India gets U.S. support in fight against terror

United States stands in solidarity with India and supports its 'right to defend itself', says Defence Secretary Hegseth; Secretary of State Rubio talks to Jaishankar, reaffirms U.S.'s commitment to cooperation with India in fight against terror; Rajnath, during his conversation with Hegseth, mentions Pakistan's 'history' of supporting terrorist organisations

Dinakar Peri Suhasini Haidar

he U.S. stands "in solidarity" with India and supports its "right to defend itself", Secretary of Defence Pete Hegseth said in a conversation with Defence Minister Rajnath Singh, while the latter said Pakistan had a "history" of supporting, training, and funding terrorist organisations, the first direct reference to Pakistan by a senior Minister in the aftermath of the Pahalgam terror attack.

The call between the Defence Ministers came after U.S. Secretary of State Marco Rubio spoke to both External Affairs Minister S. Jaishankar and Pakistan Prime Minister Shehbaz Sharif, calling on India and Pakistan to "work together" to de-escalate tensions.

Naval exercises

Meanwhile, the Indian Navy and the Pakistan Navy began simultaneous exercises in the Arabian Sea with both issuing 'Nav Area' warnings amid speculation of punitive strikes by the Indian military and a tense situation between the two countries. On the Line of Control (LoC), there was no let-up in ceasefire violations which have been going on for a week now.

"Secretary Hegseth said the U.S. stands in solidarity with India and supports InPush for peace

Two top U.S. officials have spoken to Indian Ministers



Secretary Pete Hegseth said the U.S. stands in solidarity with India and supports its right to defend

Defence

supports its right to defend itself. He reiterated the strong support of the U.S. government in India's fight against terrorism - Rajnath Singh's office

Secretary
of State
Marco Rubio
reaffirmed
the U.S.'s
commitment
to cooperation
with India

against terrorism and urged India to work with Pakistan to de-escalate tensions - U.S. State Department

dia's right to defend itself. He reiterated the strong support of the U.S. government in India's fight against terrorism," Mr. Singh's office said in a post on X. "During the conversation, Mr. Singh said that Pakistan has a history of

supporting, training, and funding terrorist organisations. He further said that it is important for the global community to explicitly and unequivocally condemn and call out such heinous acts of terrorism," the post added. "[I] Discussed the Pahalgam terrorist attack with U.S. Secretary of State Rubio," Mr. Jaishankar wrote on his X account. "Its perpetrators, backers and planners must be brought to justice," he added.

'Peace and security'

The U.S. State Department readout on the call said Mr. Rubio "expressed his sorrow for the lives lost in the horrific terrorist attack in Pahalgam, and reaffirmed the United States's commitment to cooperation with India against terrorism," adding that he "encouraged India to work with Pakistan to de-escalate tensions and maintain peace and security in South Asia".

Mr. Rubio's note urging talks joined a number of other countries including the U.K., Saudi Arabia, Kuwait and others who have spoken at high levels in both Delhi and Islamabad, even as India prepares its next response to Pakistan over the Pahalgam attack. Meanwhile, in Islamabad, a statement from Mr. Sharif's office said the Pakistani Prime Minister had asked the U.S. to ask India to "dial down the rhetoric

and act responsibly".

A day after the terror attack, U.S. President Donald Trump spoke to Prime Minister Narendra Modi during which he strongly condemned the terror attack and expressed "full support" to India to "bring to

justice" the perpetrators of this heinous attack.

Since the terror attack, Pakistan issued area warning or NOTAMs (Notice to Airmen) for almost every day, while the Indian Navy too had carried out several missile firings, India had notified naval firing at four locations off Gujarat from April 30 to May 3, while Pa-kistan had notified naval drills from April 30 to May 2. On Thursday, Pakistan issued additional notifications for air/sea traffic for naval missile and gun firing in the upper reaches of the Arabian Sea, as per opensource intelligence handle Damien Symon on 'X'.

'WON'T SPARE ATTACKERS'

Key Developments:

1. U.S. Strategic Support to India

- Defence Secretary Pete Hegseth: Expressed solidarity with India and supported its right to defend itself
- Reaffirmed U.S. commitment to counter-terrorism cooperation with India.
- This is a continuation of U.S. support post-terror attacks (e.g., Pathankot, Pulwama).

2. Indian Standpoint

- Defence Minister Rajnath Singh: Directly named Pakistan's role in funding and training terrorists, signaling a more assertive diplomatic tone.
- External Affairs Minister Jaishankar emphasized that perpetrators and backers must be brought to justice.







3. U.S. Balanced Diplomacy

- Secretary of State Marco Rubio also called Pakistan PM Shehbaz Sharif, urging both sides to deescalate tensions.
- Shows typical U.S. balancing act—supportive of India's anti-terror stand, but cautious of regional stability.

4. Naval Posturing

- Both India and Pakistan's navies are conducting simultaneous drills in the Arabian Sea, suggesting military alertness.
- Area warnings (NOTAMs) and missile firings are being notified, indicating strategic signaling.

5. Global Diplomatic Engagement

- Several countries (UK, Saudi Arabia, Kuwait) urging restraint.
- U.S. President Trump also called PM Modi to condemn the attack and promised full support.

Implications for India's Foreign Policy:

Positive Outcomes:

- International legitimacy for India's counter-terrorism narrative.
- Strengthened India–U.S. defence ties and shared strategic vision.
- Validates India's demand for global isolation of state-sponsored terrorism.

Challenges and Dilemmas:

- Pressure to de-escalate may limit India's military response options.
- U.S.'s dual engagement with Pakistan may dilute India's diplomatic edge.
- Any escalation could impact regional trade, civilian security, and diplomacy.

Strategic Perspective:

Aspect	Strategic Significance	
India–U.S. Ties	Enhanced cooperation in defence, intelligence, and counter-terrorism.	
India–Pakistan Tensions	India maintains diplomatic offensive; risk of escalation persists.	
Naval Exercises	Reflect military preparedness and strategic signaling in the IOR.	
Global Opinion	India gains support, but geopolitical balancing continues by global powers.	







UPSC Mains Practice Question

Ques :India's strategic partnership with the U.S. has deepened in the context of counter-terrorism. Critically analyze this in light of recent developments.









Page 01: GS 1,2& 3: Art and Culture, Governance& Economy

At the World Audio Visual and Entertainment Summit (WAVES) 2025, Prime Minister Narendra Modi projected India as a rising "Orange Economy" hub, appealing to global content creators to "Create in India, for the World". This event signals India's intent to position its creative and cultural industries as engines of economic growth, employment, and global soft power.

Modi champions 'orange economy' at WAVES

Vinaya Deshpande Pandit MUMBAI

Appealing to global companies to create content in India, Prime Minister Narendra Modi on Thursday said that the strength of Indian culture was to respect the cultures of other countries.

"This is the right time for 'create in India, create for the world'. Global content will be respected here. I want to give confidence to everyone from outside that when you come here, you will get connected to India very naturally. India is becoming an orange economy. The Parsis, the Jews came here and became a part of our country. The strength of our culture is to respect the cultures of the other countries," Mr. Modi said, speaking at the inauguration of the WAVES summit at Mumbai's Jio World

The 'orange economy', also known as the creative economy, refers to economic activities that leverage creativity, culture, and intellectual property to generate wealth and jobs.

Mr. Modi hailed Indian content creators, and stressed the importance of responsible creativity. "Today, foreign consumers are consuming Indian entertainment with subtitles. Screen size is becoming smaller, but the consumption is growing, the message is becoming bigger. In this time of a booming orange economy, I want to tell all you content creators, you are bringing a new wave to India's creativity. Our government is with you in your efforts," he said.

"Extra efforts need to be taken to take care of human sensitivities and sensibilities. We want to enrich humans and not turn them into robots," Mr. Modi said.

Cultural waves

The WAVES, or World Audio Visual and Entertainment Summit, has attracted major names from the media and entertainment



PM's pitch: Narendra Modi addressing the World Audio Visual Entertainment Summit 2025 in Mumbai on Thursday, PMO

industry from over 90 countries, including superstar actor Rajinikanth and Reliance Industries' CEO and MD Mukesh Ambani, who both paid respects to the victims of the recent terror attack in Pahalgam in Jammu and Kashmir.

Lauding the Prime Minister, the two said the country stood with him.

"Many said, the government will postpone this event as it is about entertainment. But I was sure that this event will happen. I am confident about our Prime Minister. He is a fighter. My hearty congratulations to the government and to the media industry. Extending my support always. Thank you for the opportunity," Mr. Rajinikanth said.

"WAVES highlights India's creative strength on the global platform. WAVES is not just an acronym, it is a wave of culture, creativity and universal connectivity," said Mr. Modi, announcing that India will soon launch the WAVES Awards.

Mr. Ambani said that the current valuation of India's entertainment industry is \$28 million. "It will reach \$100 million over the next few years. Let the stories flow, let the WAVES rise," he said.

'Creativity boom'

Adobe CEO Shantanu Narayen said, "The next boom of India is not in software, but in creativity and entertainment. With the unmatched talent in this country, India's creative economy is poised to employ more than in manufacturing industry. Over a billion people have used Adobe. A majority being used in India is being used to empower teachers. The intent is to reach two crore students and five lakh teachers. Our collaboration with WAVES will take Indian talent global."

The inaugural song at the event, showcasing India's spirituality and diversity, was composed by Oscar winning composer M.M. Keerayani.

What is the Orange Economy?

- **Definition:** The Orange Economy, or Creative Economy, refers to sectors that rely on culture, art, media, and intellectual property.
- **Includes:** Film, music, TV, publishing, gaming, design, architecture, advertising, and digital content creation.







• UNESCO and IDB have advocated its role in sustainable and inclusive development.

Key Highlights from the WAVES Summit 2025:

India's Cultural Strength

- PM Modi: India respects all cultures; it's natural for global creators to connect with India.
- Historic pluralism: Reference to Parsis and Jews integrating peacefully in India.

Creative Economy as an Economic Driver

- PM stressed on the "Create in India, Create for the World" vision.
- India's entertainment industry is currently valued at \$28 million, projected to grow to \$100 million soon.

Responsible Creativity

- Emphasis on creativity that respects human sensibilities and promotes ethical content.
- Modi: "We want to enrich humans, not turn them into robots."

Global Acknowledgment

- 90+ countries participated.
- Adobe CEO Shantanu Narayen: Creative economy will employ more than manufacturing in India in the coming decade.
- M.M. Kee<mark>ravani</mark> composed the inaugural spiritual-cultural song showcasing India's unity in diversity.

Significance for India's Development & Diplomacy:

Aspect	Implication education	
Soft Power	Enhances India's image as a cultural superpower.	
Employment Generation	Huge potential for youth employment in creative sectors.	
Global Collaboration	Attracts FDI in media & IP-based industries.	
Cultural Diplomacy	Positions India as a global storytelling hub.	
Digital India Synergy	Leverages platforms like OTT, animation, VR to expand influence.	

UPSC-Relevant Themes Connected to the Event:







- Governance & Culture: Role of the state in supporting creative freedom while regulating content ethics.
- Economy: Non-traditional sectors like entertainment contributing to GDP.
- International Relations: Culture as an instrument of diplomacy (e.g., ICCR, Cultural Exchange Agreements).
- Innovation & IP: Importance of intellectual property protection for creative sectors.
- Skill Development: Aligning with Skill India and Startup India for creative sector jobs.

Challenges Ahead:

- Content regulation vs. creative freedom.
- Piracy and weak IP enforcement.
- Digital divide and unequal access to creative tools.
- Infrastructure and global distribution limitations for creators.

UPSC Mains Practice Question

Ques : The Orange Economy offers India a unique opportunity to combine cultural heritage with economic growth. Discuss.**(250 Words)**









Page: 03: Prelims Fact

The Archaeological Survey of India (ASI) has discovered 11 inscriptions in the Gundaram Reserve Forest near Peddapalli, Telangana. These inscriptions span from the 1st century BCE to 6th century CE, shedding new light on the Satavahana period and early Deccan history.

Satavahana-era inscriptions found in Telangana's Peddapalli

P. Laxma Reddy

HYDERABAD

In a significant breakthrough for the study of Telangana's ancient history, particularly concerning the Satavahana period, the Epigraphy Branch of the Archaeological Survey of India (ASI) has documented eleven inscriptions during an epigraphical survey in the Gundaram Reserve Forest, located about 10 km away near Peddapalli district headquarters.

Spanning a period from the 1st century BCE to the 6th century CE, the inscriptions provide critical insights into the early cultural and political landscape of the Deccan, with particular reference to the Satavahana period.

"Two inscriptions from the Gundaram rock shelter stand out for their histori-



Tracing the past: ASI team copying an inscription in the Gundaram forest area near Peddapalli town. SPECIAL ARRANGEMENT

cal value. One inscription, written in early Brahmi script, records that a person of the Hāritiputra lineage – possibly of the Chutu dynasty – excavated a cave for Buddhist monks and describes himself as a friend of Kumāra Hakusiri, a Satavahana prince," said K. Munirathnam Reddy, Director (Epigraphy), ASI.

Another inscription be-

gins with a trident and damaru — auspicious religious symbols — and states that the land east of the hill belonged to Siri Devarāna.

This is the first known occurrence of such religious iconography accompanying early inscriptions in South India, indicating an early association of political authority with symbolic religious elements.

Highlights:







- The inscriptions were found during an epigraphical survey by the Epigraphy Branch of ASI.
- They are written in early Brahmi script, which is crucial for studying early Indian history.
- One inscription mentions a person of Hāritiputra lineage, possibly linked to the Chutu dynasty, known as contemporaries or successors of the Satavahanas.
- It also refers to Kumāra Hakusiri, a Satavahana prince, suggesting political and social connections between different ruling lineages.
- Another inscription contains religious symbols a trident (trishula) and a damaru (drum) likely associated with Shaivism, indicating the integration of religious iconography with royal authority.

Cultural and Historical Significance:

- Satavahanas were among the earliest Deccan dynasties who supported Buddhism and issued inscriptions in Prakrit and Brahmi script.
- The discovery of a Buddhist cave excavation in this region reaffirms the spread of Buddhism in the Deccan.
- Presence of Shaiva symbols reflects the religio-political diversity of the region.
- The inscriptions help historians map the interaction of different dynasties like the Satavahanas and Chutus.

UPSC Prelims Relevance:

- Ancient Indian dynasties: Satavahanas, Chutus
- Scripts:Early Brahmi
- Religion:Buddhism, Shaivism
- Institutions: Archaeological Survey of India (ASI)
- Geography: Deccan region, Telangana history

UPSC Prelims Practice Question

Ques: The recent discovery of inscriptions in Telangana's Peddapalli district provides evidence of which of the following dynasties' rule in the Deccan?

- a) Guptas
- b) Satavahanas
- c) Pallavas
- d) Chalukyas

Ans: b)







Page 10: GS 3: Science and Technology

India's growing energy demand, climate commitments (net-zero by 2070), and need for energy security have turned attention to a new frontier: Natural Hydrogen (also called geologic or white hydrogen). Unlike manufactured hydrogen (green/grey/blue), natural hydrogen is naturally occurring in underground reserves and potentially cheaper and cleaner.

How can India tap its natural hydrogen potential?

What are some of the challenges to exploring and exploiting natural hydrogen resources? Is it a more expensive process than manufacturing hydrogen? How is the U.S. going beyond just trying to locate and excavate natural hydrogen deposits? Does India have a growing hydrogen demand?

EXPLAINER

Kalyan Mangalapalli

The story so far:

or India, an economy in growth mode with aspirations for energy independence and a pledge to reach net-zero emissions by 2070, the exploitation and use of natural hydrogen offers a potentially game-changing opportunity. In an increasingly volatile world where national sovereignty, economic stability, and energy security become inseparable, tapping into this naturally occurring commodity could go a long way toward enhancing India's strategic autonomy.

How much potential does India have? India's hydrogen demand was projected to grow from six million tonnes per year (Mt/year) in 2020 to over 50 Mt/year by 2070 to support its net-zero target. A preliminary study, by some members of academia referencing model predictions of global geologic hydrogen resources, arrives at a value of 3,475 million tonnes of natural hydrogen potential in India. If these estimates were to be true, we may not even need to engage in the process of manufacturing hydrogen anymore but rather pursue the quest of finding and producing naturally occurring hydrogen that would help decarbonise our economy faster at a lower cost.

On the heels of the recent findings of natural hydrogen reserves in the Andamans, stakeholders need to come up with directional estimates to bring attention of policy makers and investors to the overall potential of natural hydrogen in India. A comprehensive geological study is essential, considering critical factors such as the quality, extent, thickness, accessibility, and hydrocarbon generation potential of the source rock; presence and effectiveness of seals and traps; size and viability of hydrocarbon accumulations; potential losses during migration; and the accessibility of the



GETTY IMAGES/ISTOCKPHOTO

area for exploration and development.

What are the challenges?

Natural hydrogen exploitation and exploration is no easy feat. It has technical, logistical, economical, and safety-related challenges. Accurately locating and quantifying underground hydrogen reserves is the primary challenge. Unlike oil and gas, for which well-established exploration techniques.

hydrogen reserves is the primary challenge. Unlike oil and gas, for which well-established exploration techniques exist, natural hydrogen exploration is still evolving. Additionally, efficient and cost-effective extraction technology for natural hydrogen is key. While modifying current gas industry practices associated with well drilling and extraction facilities, one must consider hydrogen's specific properties, including its small molecular size and high diffusivity. Studies into

extraction solutions for lowest cost

hydrogen are in progress.

Hydrogen extraction also involves specific safety issues as opposed to hydrocarbons because of its high diffusivity and reactivity. Mitigation measures involve the study and application of hydrogen-resistant materials such as metal coatings and advanced alloys, cement additives to make it more resistant to hydrogen, and rubber fillers to avoid degradation.

How can India kickstart the process? A key component of the Indian Solar PV mission's growth was the German Agency for International Cooperation-National Institute of Wind Energy funded Solar Radiation Resource Assessment (SRRA) Project under the National Solar Mission that commissioned 121 SRRA stations along with four Advanced Monitoring Stations (AMS). Natural hydrogen agencies can formulate a similar public private partnership to assist in the identification of potential geographical deposits. The U.S. ARPA-E's newly funded

The U.S. ARPA-E's newly funded projects take exploring the potential of geologic hydrogen beyond locating and extracting trapped geologic hydrogen towards the possibility that hydrogen can be produced intentionally, by drilling and flowing water into rock and then transporting the hydrogen to the surface for collection. Another approach involves injecting water with dissolved carbon dioxide into iron-containing rocks that could potentially lead to carbon sequestration as limestone while simultaneously producing hydrogen.

The Oil and Gas Exploration industry

The Oil and Gas Exploration industry in India, with the help of the Directorate General of Hydrocarbons, could review the rock samples available with them and explore more wells across the country with adequate grant and debt capital. A few of the current natural gas pipelines could be suitable for transporting hydrogen with adequate modifications and safety studies. Creating low-cost and safe solutions for hydrogen storage, especially massive underground storage, is imperative.

Even as estimates indicate natural hydrogen production would be much lower in cost than produced hydrogen, the actual cost of exploration, extraction, and infrastructure investment must be weighed seriously. Commercial feasibility will rely on finding large and accessible reserves and minimising extraction and delivery costs. Targeted exploration in areas of high potential, cost-reducing extraction technology development, and institution of transparent regulatory systems are essential to spur investment and market growth.

Kalyan Mangalapalli is an expert in Energy and Emerging Technologies and serves as a member of the International Advisory Board of the Indian Institute of Petroleum Energy, Visakhapatnam. This is the second of a two part series on naturally occurring hydrogen reserves.

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India's hydrogen demand was projected to grow from six million tonnes per year (Mt/year) in 2020 to over 50 Mt/year by 2070 to support its net-zero target.

Natural hydrogen exploitation and exploration is no easy feat. It has technical, logistical, economical, and safety-related challenges.

The U.S. ARPA-E's newly funded projects take exploring the potential of geologic hydrogen beyond locating and extracting trapped geologic hydrogen towards the possibility that hydrogen can be produced intentionally.

India's Potential:

- India may hold up to 3,475 million tonnes of natural hydrogen (as per preliminary academic estimates).
- Demand projected to rise from 6 Mt/year (2020) to over 50 Mt/year by 2070.



Geetha Hospital, Street No:5, Chaitanyapuri Main Rd, above Dmart Pick-up Point, opp. to Genius Grammar School, Chaitanyapuri, Hyderabad, Telangana 500060 Contact:- 082477 38641 Website:- www.tirumalclassesiasinstitute.com





- Recent natural hydrogen discovery in the Andaman region renews exploration interest.
- If viable, this can reduce dependence on manufacturing hydrogen (green, grey, blue) and accelerate decarbonisation.

What is Natural Hydrogen?

- A naturally occurring, renewable hydrogen resource found underground.
- Often generated by geochemical reactions (e.g., water interacting with iron-rich rocks).
- Tapped like oil/gas, with minimal emissions and theoretically lower production cost.

Challenges in Exploration & Extraction:

- 1. Lack of proven exploration techniques (unlike oil & gas).
- 2. Hydrogen's unique properties (small molecule, high diffusivity) make containment and storage difficult.
- 3. Safety hazards: Reactive nature requires specialized materials (metal coatings, rubber fillers, hydrogen-resistant cement).
- 4. Infrastructure gap: Pipelines, storage, and extraction methods are underdeveloped.
- 5. High initial costs for geological surveys, drilling, and retrofitting existing systems.

Comparison: Natural vs. Manufactured Hydrogen

- Manufactured Hydrogen: Produced via electrolysis (green) or fossil fuels (grey/blue); energy- and cost-intensive.
- Natural Hydrogen: Underground reserves, potentially cheaper, but less explored, with uncertain scalability.

How Can India Move Forward?

- 1. Geological Studies: Use existing oil & gas data via Directorate General of Hydrocarbons.
- 2. Public-Private Partnerships: Similar to SRRA (Solar Radiation Resource Assessment) for solar energy.
- 3. Adaptation of Pipelines: Modify natural gas pipelines to carry hydrogen with safety upgrades.
- 4. Technology Innovation: Learn from U.S. ARPA-E projects exploring intentional generation of hydrogen by reacting water with rocks.
- 5. Safe Storage Systems: Focus on large-scale underground hydrogen storage.
- 6. Policy & Regulation: Clear framework to attract investment and ensure environmental safety.

U.S. Approach – A Benchmark:

• Beyond exploration: Drilling into rock and injecting water to intentionally produce hydrogen.







- Integrating carbon sequestration with hydrogen generation.
- Heavy public funding and innovation ecosystem via agencies like ARPA-E.

Types of Hydrogen						
Colour						
Туре	Black/Brown Hydrogen	Grey Hydrogen	Blue Hydrogen	Turquise Hydrogen	Pink Hydrogen	Green Hydrogen
Process	Coal Gasification	Methane Reformation	Coal Gasification &Methane Reformation with CCUS	Pyrolysis	Electrolysis	Electrolysis/ Biomass Gasification
Source	Coal	Natural Gas	Fossil Fuel	Methane	Nuclear Energy	Renewable Energy

UPSC Mains Relevance:

- Hydrogen Economy as a pillar of India's energy transition strategy.
- Natural hydrogen aligns with goals under National Green Hydrogen Mission.
- Role in reducing import dependence, improving strategic autonomy, and fulfilling SDG 7 (Affordable & Clean Energy).

Quality education

Prelims-Focused Takeaways:

- Natural Hydrogen = naturally occurring, underground; not to be confused with green, blue, grey hydrogen.
- India's hydrogen demand projected to grow 8–9x by 2070.
- Directorate General of Hydrocarbons (DGH) is key for subsurface energy resources.
- ARPA-E (U.S.) = Advanced Research Projects Agency-Energy.
- Hydrogen has high diffusivity, requiring specialized materials for containment.





Quality education

UPSC Prelims Practice Question

Ques: Consider the following statements about hydrogen:

- 1. Hydrogen has a smaller molecular size than methane.
- 2. Natural hydrogen can be generated through rock-water reactions.
- 3. India's hydrogen demand is projected to decline by 2070.

Which of the statements are correct?

- a) 1 and 2 only
- b) 2 and 3 only
- c) 1 and 3 only
- d) 1, 2 and 3

Ans: a)

UPSC Mains Practice Question

Ques: "Natural hydrogen can be a game-changer for India's clean energy ambitions." Discuss the potential and challenges of tapping this resource.







Page 10: GS 2: International Relations

Following the Pahalgam terror attack, India has announced that it will hold the Indus Waters Treaty (IWT) in "abeyance" with immediate effect. This development raises important legal, diplomatic, and environmental questions concerning unilateral suspension of a bilateral treaty.

Can the Indus Waters Treaty be suspended unilaterally?

What does the Vienna Convention on the Law of Treaties stipulate with respect to suspending or terminating treaties between countries? How will a disruption in water flow affect Pakistan?

Aaratrika Bhaumik

The story so far:

he 1960 Indus Waters Treaty (IWT) gives India unrestricted rights over the three eastern rivers – Ravi, Beas, and Sutlej. While Pakistan was given exclusive control over the three western rivers – Indus, Jhelum, and Chenab, India retained limited rights to use the waters for "non-consumptive" purposes. However, following the terror attack in Pahalgam on April 22, India announced the IWT would be held in abeyance with "immediate effect".

Is unilateral suspension permissible? The IWT cannot be altered unilaterally. Article XII stipulates that the treaty can only be terminated through a "duly ratified treaty" agreed upon by both states. The term "hold in abevance," as used by India in its letter to Pakistan, is neither recognised in international law nor mentioned in the Vienna Convention on the Law of Treaties (VCLT), 1969, the principal treaty governing agreements between states. "The VCLT does not use the word 'abeyance'; it uses the term 'suspension,' which allows a country to suspend the operation of an entire treaty or a part of it. Suspension is distinct from termination. I believe that when India used the word 'abeyance,' it intended to mean 'suspension' rather than termination of the IWT," Dr. Prabhash Ranjan, professor at Jindal Global Law School, told The Hindu.

Article 62 of the VCLT allows a treaty to be repudiated if there has been a "fundamental change of circumstances" from those existing at the time of its conclusion. Although India is not a party to the VCLT and Pakistan has signed but not ratified it, the International Court of

Justice (ICI) in the Fisheries Jurisdiction cases affirmed that Article 62 codifies customary international law and is therefore binding regardless of formal ratification. India appears to be invoking this principle, as its letter stated that "fundamental changes in the circumstances" require a "reassessment of obligations" under the IWT. However, Dr. Ranjan pointed out that ICJ rulings have set a high threshold for what qualifies as a "fundamental change in circumstances". In the 1997 Gabcíkovo-Nagymaros Project dispute between Hungary and Slovakia over the construction of a dam, Hungary argued that political and economic shifts, along with the threat of environmental disaster, provided sufficient grounds to terminate the treaty. However, the ICI rejected these arguments, noting that the political and economic changes were not directly linked to the treaty's primary objective

joint energy production.

How will this affect Pakistan?

More than 80% of Pakistan's agriculture and around a third of its hydropower generation depend on the waters of the Indus basin. However, experts say that India lacks the massive storage infrastructure and extensive canal systems needed to withhold tens of billions of cubic metres of water from the western rivers. "The infrastructure India possesses consists largely of run-of-the-river hydropower plants, which do not have the capacity for large-scale storage. However, the real impact lies in the uncertainty over water

run-of-the-river hydropower plants, which do not have the capacity for large-scale storage. However, the real impact lies in the uncertainty over water flow, which could severely affect Pakistan's predominantly agrarian economy. If India begins regulating the flow using its existing infrastructure, Pakistan could experience significant disruptions," Dr. Happymon Jacob, associate professor at the School of International Studies, JNU, told *The Hindu*. A senior government official earlier told *The Hindu* that India will explore "options that it has never

considered" under the IWT, such as

increase water storage capacity and

deploying 'drawdown flushing' of its reservoirs. The abrupt release of large

could potentially cause significant

damage downstream in Pakistan.

volumes of water without prior warning

redesigning its hydroelectric projects to

THE GIST

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The 1960 Indus Waters Treaty (IWT) gives India unrestricted rights over the three eastern rivers — Ravi, Beas, and Sutlej

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The IWT cannot be altered unilaterally. Article XII stipulates that the treaty can only be terminated through a "duly ratified treaty" agreed upon by both states.

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More than 80% of Pakistan's agriculture and around a third of its hydropower generation depend on the waters of the

Indus Waters Treaty (IWT), 1960:

- Brokered by the World Bank between India and Pakistan.
- India has exclusive rights over eastern rivers: Ravi, Beas, Sutlej.
- Pakistan has rights over western rivers: Indus, Jhelum, Chenab, with limited non-consumptive usage by India (hydropower, irrigation).
- The treaty is often praised for surviving multiple India-Pakistan wars.
- Vienna Convention on Law of Treaties (1969) Governs international treaties
 - India is not a party
 - Article 62 Fundamental change in circumstances
- ICJ recognizes Article 62 as customary law.
- Run-of-the-river dams = minimal water storage.

Can the Treaty Be Unilaterally Suspended or Terminated?

Vienna Convention on the Law of Treaties (VCLT), 1969



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- Article 12 of IWT: Termination only through mutual agreement by a ratified treaty.
- "Abeyance" is not a recognized term under the VCLT; likely used by India as a softer reference to suspension.

Article 62 – Fundamental Change of Circumstances

- Allows for treaty suspension/termination if a fundamental change occurs.
- ICJ recognizes Article 62 as part of customary international law (even for non-parties like India).
- However, high legal threshold: Change must affect the core objective of the treaty.
 - Example: Hungary v. Slovakia (1997) political and environmental shifts were rejected as insufficient.

So,Unilateral suspension under international law is legally contested and requires substantiated justification.

Strategic and Economic Impact on Pakistan:

- 80% of Pakistan's agriculture and 1/3rd of its hydropower depend on the Indus Basin.
- India's existing infrastructure (mainly run-of-the-river dams) does not allow large-scale water withholding.
- However, control over flow timing can affect crop cycles and water availability.
- Possible future options for India:
 - Redesigning dams to allow higher water storage.
 - Drawdown flushing to release large volumes suddenly causing downstream flooding or disruption.
- Psychological pressure: Uncertainty of water flow may be used as a strategic tool.

Diplomatic Repercussions:

- Could escalate India-Pakistan tensions.
- May draw global attention, especially from the World Bank, UN bodies, and China (as an upper riparian on Brahmaputra).
- Potential precedent-setting in international water diplomacy.

UPSC Mains Relevance:

- Ethical and strategic dilemma: Using water as a weapon vs. upholding international commitments.
- Examines India's legal posture vs. strategic autonomy.
- Need for a robust transboundary water management framework in line with international norms.





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UPSC PrelimsPractice Question

Ques: Consider the following statements regarding the Vienna Convention on the Law of Treaties:

- 1. India is a signatory to the Vienna Convention on the Law of Treaties.
- 2. Article 62 of the Convention permits suspension of a treaty due to fundamental change in circumstances.

Which of the above statements is/are correct?

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) Neither 1 nor 2

Ans: b)

UPSC Mains Practice Question

Ques :Critically examine the relevance of the Vienna Convention on the Law of Treaties in addressing contemporary geopolitical conflicts.







Page : 08 Editorial Analysis Reviving a far-sighted but forgotten Bill mechanism

rivate Member's Bills (PMBs) are a mechanism through which Members of Parliament (MP), who are not Ministers, can propose their own legislation. In India's parliamentary system, most laws are introduced by the government, drafted by Ministries and tabled by Ministers. In contrast, PMBs come from individual MPs, both ruling party or the Opposition. In each session, Fridays are usually reserved for discussion on PMBs. PMBs are perhaps the last remaining intervention wherein MPs are not strictly guided by party mandate.

However, this crucial intervention has steadily eroded. Frequent disruptions, pre-emptive adjournments, and the increasing prioritisation of government business have reduced the PMB to a symbolic gesture rather than a serious legislative exercise. Ignoring the PMB is a procedural lapse and also signals a democratic backslide.

PMB trends, 17th and 18th Lok Sabha

Since Independence, only 14 PMBs have been passed and received presidential assent and none has cleared both Houses since 1970. In the 17th Lok Sabha (2019-24), 729 PMBs were introduced in the Lok Sabha and 705 in the Rajya Sabha. However, only two in the Lok Sabha and 14 in the Rajya Sabha were ever discussed.

In the 18th Lok Sabha, only 20 MPs have introduced PMBs so far. During the inaugural and Budget Sessions of 2024, 64 PMBs were introduced in the Lok Sabha, but not a single one was discussed.

In the winter session, two Fridays in the Lok Sabha were lost to disruptions, while another was taken up by a general discussion on the Constitution. Even in the Budget Session, the first Friday, usually reserved for private members, was used for discussions on the Union Budget. Only one Friday in the Lok Sabha saw any private member business-related activity, and even this was limited to a resolution. In the Rajya Sabha, out of 82 PMBs listed during the Budget Session, only 49 were introduced on a single Friday, and discussion began on just one, only to be cut short as the House was adjourned *sine die*.

PMBs have long provided a platform for MPs to introduce pieces of legislation that reflect personal convictions, constituency demands, or emerging social needs, regardless of party affiliation.

A notable example is the 'Right to Disconnect' Bill introduced by Supriya Sule of the Nationalist Congress Party, in the Lok Sabha on October 28, 2019. The Bill proposed granting employees the legal right to disengage from work-related



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The Private Member's Bill has the potential to be a gold mine for India's legislative landscape communication beyond official working hours, addressing the increasing intrusion of work into personal life in the digital age. Though it did not proceed beyond the initial stage, the Bill sparked an important national conversation on mental health, work-life balance, and labour rights in a hyper-connected economy. It exemplifies how PMBs can be vehicles for forward-looking and unconventional ideas.

In contrast, some PMBs have had a more tangible legislative impact. In 2014, Tiruchi Siva of the Dravida Munnetra Kazhagam (Rajya Sabha), introduced the 'Rights of Transgender Persons Bill. On April 24, 2015, the Bill made history by becoming the first Private Member's Bill in over four decades to be passed by the Rajya Sabha. Though it did not clear the Lok Sabha, it laid the groundwork for the Transgender Persons (Protection of Rights) Act, 2019, introduced and passed by the government. This Bill is a powerful reminder of how private initiatives can shape the legislative agenda and compel government action on socially sensitive issues.

PMBs also offer space for MPs from the ruling party to express independent thought. Bharatiya Janata Party MP Gopal Chinayya Shetty's Bill calling for free medical and health-care facilities to the senior citizens in all Government and private hospitals is an example. His intervention demonstrates that even Treasury Bench MPs, often bound by government priorities, can use PMBs to introduce legislation based on personal insight or constituency feedback.

Shrinking space for independent action

One cannot overlook the institutional changes that have contributed to the reduced space for individual legislative initiative. The 52nd Constitutional Amendment, which introduced the Anti-Defection Law through the Tenth Schedule, aimed to ensure political stability. However, it has also had the unintended effect of limiting the ability of MPs, particularly the Treasury Benches, to independently question or deviate from their party's legislative agenda. In such a structured environment, the PMB remains one of the few avenues through which MPs across party lines can suggest constructive policy alternatives.

While voters in India may cast their ballots for candidates contesting on party symbols, their choices are often equally influenced by the individual's integrity, expertise and track record within the constituency. MPs are elected not solely to reiterate the party's position, but to serve as a voice for the aspirations and concerns of their constituents.

To safeguard the PMB process, a series of

procedural and structural reforms must be considered.

Reforms to pursue

The first is the need to treat the time earmarked for PMBs as sacrosanct. Amendments to the Rules of Procedure and Conduct of Business should explicitly protect this time from being overridden, except in cases of a national emergency. Dedicated hours for PMBs must not only be preserved but also enforced with consistency, enabling meaningful debate and potential adoption of the PMB.

Parliament could consider instituting a review committee specifically for PMBs, responsible for screening Bills for quality, relevance, and constitutionality. It could even recommend a priority list for discussion based on public importance and cross-party support. A fast-track mechanism may also be introduced for high-impact or broadly supported Bills to reach the floor in a time-bound manner.

In instances where the government feels constrained by time to transact its own legislative business, it should consider extending the overall working hours of Parliament, rather than encroaching upon the Fridays reserved for PMBs. The working hours in both Houses typically run from 11 a.m. to 4:30 p.m., which includes a lunch break. A modest extension, even by an hour or two, would significantly improve the productivity of Zero Hour and Question Hour, while ensuring that PMBs remain undisturbed. With the prospect of delimitation and a likely increase in the number of MPs in both Houses, the urgency of reform is greater than ever.

One compelling reform that could be adapted from international practice is the Ten-Minute Rule of the U.K. Parliament – any MP can make a short speech of up to 10 minutes in support of a PMB along with its introduction after which another MP may oppose it for an equal length of time. This allows Bills to be introduced, heard, and recorded without long time slots. Adopting a similar provision in the Indian context, either as an addition to or as a substitute for existing PMB procedures, could create a channel for a greater number of legislative ideas to enter the public domain.

The Vice President of India/Chairman of the Rajya Sabha, Jagdeep Dhankhar, has laid emphasis on the role of private member's business in deepening democracy. He described PMBs as "far-sighted, forward-looking, and a gold mine" for India's legislative landscape. These are words that reflect both the value and the potential of this mechanism when nurtured with sincerity.







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Paper 02:Indian Polity

UPSC Mains Practice Question: "Private Member's Bills, though rarely passed, are essential for legislative dynamism." Examine the challenges and reforms needed to revive their relevance. (250 words)

Context:

Private Member's Bills (PMBs), though an important legislative instrument for non-minister MPs, have been increasingly sidelined in the Indian parliamentary process. Despite rare successes, such as the Transgender Rights Bill (2015) and the Right to Disconnect Bill (2019), the majority of PMBs fail to even be discussed. This trend points to a shrinking space for independent legislative input in a highly party-centric and government-dominated lawmaking system.

What are Private Member's Bills (PMBs)?

- PMBs are introduced by any Member of Parliament who is not a Minister.
- They allow MPs to:
 - Express individual/constituency-driven concerns.
 - Propose alternative policies or reforms.
 - Highlight emerging social or legal gaps.
- Traditionally discussed on Fridays when Parliament is in session.
- Since Independence, only 14 PMBs have become laws, the last successful one in 1970.

Recent Trends - Erosion of the PMB Mechanism:

- 17th Lok Sabha (2019–24):
 - o 729 PMBs introduced in Lok Sabha, 705 in Rajya Sabha.
 - o Only 16 were discussed, none passed.
- 18th Lok Sabha (2024 onwards):
 - o 64 PMBs introduced, but none discussed.
 - o Fridays lost due to disruptions or government business.

Significance of PMBs in Strengthening Democracy:

1. Platform for innovation: Many path-breaking ideas like the Right to Disconnect (Supriya Sule) emerged as PMBs.







- 2. Pushes government action: Transgender Persons Bill led to a government version in 2019.
- 3. Enables intra-party diversity: Even ruling party MPs (e.g., Gopal Shetty's healthcare bill) can express individual viewpoints.
- 4. Local representation: MPs can raise constituency-specific issues that the Executive may ignore.

Challenges Undermining PMBs:

- Frequent adjournments/disruptions of Parliament.
- Fridays often sacrificed for government business.
- Anti-defection law (52nd Amendment) reduces space for individual MP initiatives.
- Lack of institutional mechanisms to filter, fast-track, or prioritize quality PMBs.

Suggested Reforms:

- 1. Protect Fridays for PMBs:
 - o Amend rules to safeguard private member time, barring national emergencies.
 - Enforce consistency and accountability in upholding these slots.
- 2. PMB Review Committee:
 - o Screen Bills for relevance, constitutionality, and cross-party support.
 - o Create a priority list for time-bound discussion.
- 3. Extend Working Hours of Parliament:
 - o Slight extension (e.g., 1-2 hours) can boost productivity without sacrificing PMBs.
- 4. Adopt the UK's "Ten-Minute Rule":
 - MPs propose PMBs in short 10-minute speeches, allowing broader participation without long debates.

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- 5. Fast-track High-Impact Bills:
 - o Streamline introduction-discussion-passage pipeline for widely supported proposals.

UPSC Mains Relevance & Analysis:

Aspect	Importance
Democratic Deepening	PMBs represent pluralism and legislative innovation beyond party lines.
Legislative Reform	Necessary to restore balance between Executive dominance and Parliamentary creativity.
Institutional Accountability	Upholding procedural sanctity builds public trust and constitutional values.
Governance Innovation	PMBs can anticipate social shifts (e.g., mental health, digital rights, identity).







Examples to Quote in Mains Answers:

- Right to Disconnect Bill sparked discourse on mental health and work-life balance.
- Transgender Persons Bill, 2014 (Tiruchi Siva) first PMB in 40+ years to pass one House.
- BJP MP Gopal Shetty's Bill free healthcare for senior citizens shows ruling party MPs using PMBs.



