

PRAGNYA BHARATHI: Detailed News Analysis (DNA)

Topic : Supreme Court Verdict on Imran Pratapgadhi's Case

Relevance : GS Paper 2 Polity and Governance

Source : The Hindu

Context :

On March 29, 2024, the Supreme Court of India quashed a criminal case filed against Congress MP Imran Pratapgadhi by the Gujarat police. The case alleged that Pratapgadhi's poem incited discord and violated Section 196 of the Bharatiya Nyaya Sanhita (BNS). The court ruled that free speech—expressed through poetry, theatre, stand-up comedy, or satire—is a fundamental right that must be cherished and protected.

Free speech is an integral part of healthy society: SC

Law enforcement must employ 'standards of reasonable minds' before inciting criminal action against freedom of expression, says top court; it quashes hate speech case against Congress MP

Krishnadas Rajagopal
NEW DELHI

The Supreme Court on Friday said the fundamental right to free speech through poetry, theatre, stand-up comedy, and satire must be cherished, even as it quashed a criminal case accusing Congress MP Imran Pratapgadhi of inciting discord through his poem on "suffering injustice with love".

The judgment was based on an appeal filed by Mr. Pratapgadhi against the registration of a criminal case by the Gujarat police under Section 196 of the Bharatiya Nyaya Sanhita. "Seventy-five years into our Republic, we cannot be seen to be so shaky on our fundamentals that a mere recital of a poem, or



The Gujarat police had filed a case against Imran Pratapgadhi, accusing the Congress MP of inciting discord through his poem. ANI

for that matter, any form of art or entertainment, such as stand-up comedy, can be alleged to lead to animosity or hatred amongst different communities. Subscribing to such a view would stifle all legitimate expressions of view in the public domain, which is so fundamental to a free so-

ciety," a Bench of Justices A.S. Oka and Ujjal Bhuyan wrote in its verdict.

Reasonable restrictions Justice Bhuyan explained to Solicitor-General Tushar Mehta that the "reasonable restrictions" on free speech must remain reasonable. "Restrictions can-

not be harmful or oppressive. Restrictions cannot overshadow the fundamental right to free speech," Justice Bhuyan said pointedly.

The top court said free speech was an integral part of a healthy and civilised society. A person's views cannot be silenced merely because the majority does not like the sound of them. The law enforcement authorities and courts must employ the standards of reasonable, strong-minded, firm, and courageous minds, and not weak and vacillating ones who scent danger in every hostile point of view, before initiating criminal action against freedom of expression.

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Constitution must not be used in an oppressive manner.

'Free speech is integral part of healthy society'

Justice Oka, who authored the judgment with inputs from Justice Bhuyan, said the state and the police should not play ball to victimise individual opinions on behalf of those crippled by insecurity and view criticism as a threat to their power and position. The top court highlighted that the police and the government have a duty to uphold and honour individual right to speech and expression.

The Gujarat Police had registered a case against Mr. Pratapgadhi, accusing him of promoting enmity among people of different groups on the basis of caste and religion.

Justice Oka, during a March 3 hearing of the case, had remarked that the poem was a reference to non-violence, a path followed by Mahatma Gandhi himself. Mr. Mehta had however found the poem at best "sadak chaap" (cheap). He had objected to the comparison with Mahatma Gandhi.

The FIR was lodged on the basis of a complaint about an edited video featuring the MP with the poem playing in the background.

The Solicitor-General had replied that a poem was capable of many interpretations, asking a policeman to interpret poetry may be a tall task.

Justice Ujjal Bhuyan explicitly told Solicitor-General Tushar Mehta that reasonable restrictions must remain reasonable and cannot overshadow the fundamental right to free speech. The judgment underscored that law enforcement agencies should not treat every dissenting opinion as a threat but instead evaluate it with firm and courageous minds rather than weak or vacillating ones.

A.S. Oka and Ujjal Bhuyan, emphasized that:

1. Democracy cannot be "shaky" about free speech, and a mere recital of a poem cannot be criminalized.
2. Artistic expression should not be stifled as it is crucial for a free society.
3. The law enforcement authorities must apply "reasonable minds" while taking criminal action against expressions of speech.
4. The concept of reasonable restrictions under Article 19(2) of the Indian

Even if a large number of persons dislike the views expressed by another, the right of person to express the views must be respected and protected. Literature, including poetry, dramas, films, satire, and art, make the life of human beings more meaningful." - Supreme Court

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Road to verdict

The fact check unit of Ministry of Electronics and IT has faced criticism since it was established on April 6, 2023. The case against the Centre's amendment has concluded after over a year. **Highlights:**

April 10, 2023: Satirist Kunal Kamra files a petition in Bombay HC against the amendments to the Act, calling them "arbitrary, violating fundamental rights of speech and expression and vague"; Editors Guild of India and the Internet Freedom Foundation join the plea later

April 24: IT Rules Amendment does not seem to offer protection to

parody and satire, observes Bombay HC

Jan. 31, 2024: Court delivers a split verdict with Justice Patel favouring the petitioners and Justice Gokhale upholding the amendment

Feb. 8: The case is placed before Justice Chandurkar

March 21: SC stays setting up of FCU to monitor social media content about the government



Justice Chandurkar

SOCIAL MEDIA

- Identify 'first originator' of content that authorities consider anti-national
- Appoint grievance officer, resolve complaints in 15 days
- File monthly compliance report on complaints received, action taken

DIGITAL NEWS

- Follow Press Council of India, Cable TV Networks (Regulation) Act norms.
- Self-regulatory bodies to oversee adherence to Code of Ethics
- I&B Ministry to form panel, oversight mechanism

OTT PLATFORMS

- Self-classify content into five age-based categories: U (universal), U/A 7+ (years), U/A 13+, U/A 16+, and A.

- Parental locks for any content classified as U/A 13+ or above.
- Age verification mechanism for content classified as 'A' (adult)

Free Speech in India: Constitutional and Legal Provisions

1. Article 19(1)(a): Freedom of Speech and Expression

The right to free speech is enshrined in Article 19(1)(a) of the Indian Constitution. This article guarantees that every citizen has the right to freely express their thoughts, opinions, and beliefs, subject to certain restrictions.

2. Article 19(2): Reasonable Restrictions on Free Speech

While free speech is a fundamental right, it is not absolute. The State can impose

"reasonable restrictions" under Article 19(2) in the interest of:

- Sovereignty and integrity of India
- Security of the State
- Friendly relations with foreign states
- Public order
- Decency or morality
- Contempt of court
- Defamation
- Incitement to an offense

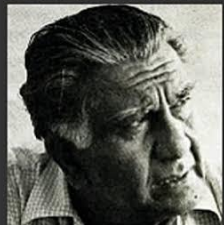
However, the Supreme Court has repeatedly ruled that these restrictions must be interpreted narrowly and should not be misused to curb dissent or artistic expression.

Landmark Supreme Court Cases on Free Speech

1. Romesh Thapar v. State of Madras (1950)

1950

ROMESH THAPAR V STATE OF MADRAS



Case:

With his magazine banned in Madras, journalist-editor Romesh Thapar moved the Supreme Court, arguing that the law under which the State acted against him had violated his right to free speech and expression. On May 26, 1950, the court ruled in his favour, making this the first landmark ruling protecting free speech and limiting State power that can be used arbitrarily

Relevance today:

The ruling continues to be guardrail against breach of press freedom. In *Sakal Papers v Union of India* (1961), when the government tried to regulate the cost of newspapers; in *Bennett Coleman v Union of India* (1972) when the government attempted to regulate even the size and circulation of newspapers and in the *Indian Express Newspapers (Bombay) v Union of India* (1984) when the government increased custom duty on newsprint. All three laws were struck down for restricting free press

AN EXPRESS SERIES

- The Supreme Court struck down a Madras government order banning a newspaper, ruling that freedom of the press is implicit in freedom of speech.
- It held that public order was not a ground for restricting free speech at that time (later included via the First Amendment in 1951).

2. Brij Bhushan v. State of Delhi (1950)

- The Supreme Court struck down pre-censorship of newspapers, ruling that

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prior restraint on publications violated Article 19(1)(a).

3. K.A. Abbas v. Union of India (1970)

- The court upheld film censorship as constitutional but stated that artistic expression should not be curbed arbitrarily.

be restricted simply because they are unpopular.

- It held that film censorship should be based on reasonableness, not public outrage.

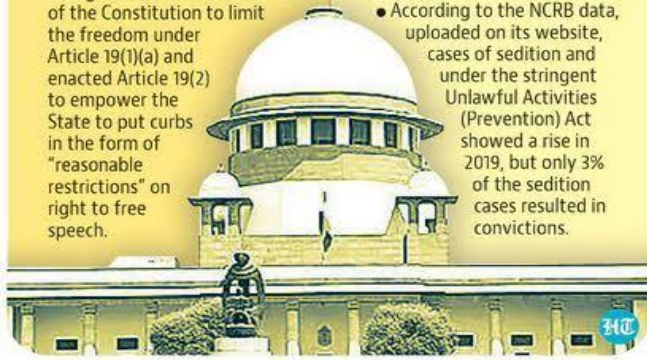
6. Shreya Singhal v. Union of India (2015) – Struck Down Section 66A of IT Act

- The Supreme Court struck down Section 66A of the Information Technology Act, which allowed arrests for "offensive" online posts.
- The court ruled that vague laws cannot be used to suppress free speech and that mere "offensive" speech does not qualify as "incitement".

Contentious history

Section 124 A of the IPC penalises sedition as punishable with either imprisonment ranging from 3 yrs to a lifetime, a fine, or both

- Sedition law was introduced by the British in 1870, and almost dropped from the Constitution in 1948
- The word "sedition" disappeared from the Constitution on November 26, 1949 and Article 19 (1)(a) gave absolute freedom of speech and expression. However, Section 124A continued to stay in IPC.
- In 1951, Jawaharlal Nehru brought in the first amendment of the Constitution to limit the freedom under Article 19(1)(a) and enacted Article 19(2) to empower the State to put curbs in the form of "reasonable restrictions" on right to free speech.
- In its judgment in the Kedar Nath case in 1962, a Constitution bench upheld the validity of the sedition law. The bench held that Section 124A only penalised words that reveal an intent or tendency to disturb law and order or that seem to incite violence. This definition has been taken as precedent for all matters pertaining to section 124A ever since.
- According to the NCRB data, uploaded on its website, cases of sedition and under the stringent Unlawful Activities (Prevention) Act showed a rise in 2019, but only 3% of the sedition cases resulted in convictions.



4. Bennett Coleman & Co. v. Union of India (1973)

- The court ruled that government control over newspaper page limits violated free speech and reaffirmed that the press has a right to publish without excessive state interference.

5. S. Rangarajan v. P. Jagjivan Ram (1989)

- The Supreme Court ruled that artistic freedom and dissenting views cannot

THE HINDU

DATA POINT

The worrying state of press freedom in India

In the 2022 edition of the Press Freedom Index published by Reporters Without Borders, India fell to the 150th position, its lowest ever, out of 180 countries. In the last edition, India was ranked eight points higher, at 142. The ranking is based on a country's performance in five broad categories: political context, legal framework, economic context, socio-cultural context and safety of journalists. Of the five, India's ranking was lowest in the safety of journalists category (163) and best in the legal framework category (120). By The Hindu Data Team

■ A DROP TO 150 | The chart shows the rankings of 180 countries in the 2022 Press Freedom Index. India has been ranked 150. Countries ranked lower than India include Sudan (151), Russia (155), Pakistan (157), Bangladesh (162) and China (175)

■ ACROSS CATEGORIES | The chart shows India's rankings across various categories in 2022. India ranked best in the legal framework category and worst in the safety of journalists category. The definition of each category is expanded in the bottom

■ NEW LOW | The chart shows India's rank in the Press Freedom Index. While India has ranked consistently low over the past few years, its rank in 2022 plunged to the lowest the country has ever seen

DEFINITIONS

Political context: The degree of support and respect for media autonomy vis-à-vis political pressure from the state or from other political actors

Legal framework: The degree to which journalists and media are free to work without censorship or judicial sanctions

Economic context: Economic constraints linked to governmental policies (including the difficulty of creating a news media outlet, favouritism in the allocation of state subsidies)

Socio-cultural context: Social constraints resulting from denigration and attacks on the press based on such issues as gender, class, ethnicity and religion

Safety: Ability to gather news without unnecessary risk of:

- Bodily harm (including murder, violence, arrest, detention and abduction)
- Psychological or emotional distress that could result from intimidation, coercion, harassment, surveillance, doxing (publication of personal information with malicious intent), degrading or hateful speech, swarms and other threats targeting journalists
- Professional harm resulting from, for example, the loss of one's job, the confiscation or professional equipment, or the ransacking of installations

■ The level of acceptance of a variety of journalistic approaches satisfying professional standards, including politically aligned approaches and independent approaches

■ The degree of support for the media in the role of holding politicians and government to account

■ The ability to access information without discrimination, and the ability to protect sources

■ The presence or absence of impunity for those responsible for acts of violence against journalists

■ Economic constraints linked to non-state actors (advertisers and commercial partners)

SOURCE: REPORTERS WITHOUT BORDERS

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7. Amish Deugan v. Union of India (2020)

- The court ruled that **hate speech must be clearly defined**, and **casual speech should not be criminalized unless it provokes violence**.

Hate Speech vs. Free Speech

The Supreme Court has often distinguished between **free speech and hate speech**:

- Free speech** allows criticism, dissent, and offensive opinions.
- Hate speech** is speech that incites violence, hatred, or discrimination against a group.

In the Imran Pratapgadhi case, the court found **no evidence of hate speech**, as his poem merely expressed **dissent against injustice**.

Implications of the Supreme Court's Verdict

- Protection of artistic expression** – The verdict safeguards poets, comedians, and artists from undue legal harassment.
- Reaffirmation of reasonable restrictions** – The ruling prevents misuse of laws to silence dissent.
- Guidelines for law enforcement** – The court has set **higher standards** for law enforcement to follow before filing criminal cases against speech-related offenses.

Prelims Practice Question

Q. Consider the following statements regarding Freedom of Speech and Expression in India:

- The right to freedom of speech and expression under Article 19(1)(a) is absolute and cannot be restricted under any circumstances.

- The Supreme Court in **Shreya Singhal v. Union of India (2015)** struck down **Section 66A of the IT Act** for being vague and unconstitutional.
- The Supreme Court has ruled that restrictions on free speech must be reasonable and cannot overshadow the fundamental right itself.

Which of the statements given above is/are correct?

- 1 and 2 only
- 2 and 3 only
- 1 and 3 only
- 1, 2, and 3

Answer:

Correct Option: (b) 2 and 3 only

Explanation:

- Statement 1 is incorrect:** The right to free speech is **not absolute**. It is subject to **reasonable restrictions** under Article 19(2), such as sovereignty, public order, and decency.
- Statement 2 is correct:** The Supreme Court in **Shreya Singhal v. Union of India (2015)** struck down **Section 66A of the IT Act**, ruling that it was **vague and had a chilling effect on free speech**.
- Statement 3 is correct:** The Supreme Court has repeatedly held that restrictions on free speech must be **reasonable and must not overshadow the fundamental right itself**, as reaffirmed in the Imran Pratapgadhi case (2024).

Mains Model Question :

Q. Freedom of speech and expression is a fundamental right, but it is not absolute. Discuss its constitutional provisions in India and analyze how the judiciary has balanced

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this right with reasonable restrictions through landmark judgments.

Freedom of speech and expression, enshrined in Article 19(1)(a) of the Indian Constitution, is a cornerstone of democracy. It allows individuals to express their opinions, criticize policies, and engage in public discourse. However, this right is subject to reasonable restrictions under Article 19(2), which permits the state to curb speech that affects sovereignty, public order, morality, or friendly relations with foreign states. The judiciary has played a crucial role in ensuring that these restrictions are not misused to suppress legitimate dissent.

The Supreme Court has consistently upheld the importance of free speech while defining its limits. In *Romesh Thapar v. State of Madras* (1950), the court emphasized that democracy thrives on open discussions. In *Shreya Singhal v. Union of India* (2015), it struck down Section 66A of the IT Act, ruling that vague laws restricting online speech violated fundamental rights. Similarly, in *S. Rangarajan v. P. Jagjivan Ram* (1989), the court held that public outrage cannot justify censorship.

Topic : India's Geopolitical Vision and the Need for a Proactive Approach

Relevance : GS paper 2 Polity and International Relations

Source : The Hindu

Context :

India's evolving global role—its need to move beyond economic growth and adopt a more assertive geopolitical strategy. While India has actively engaged in humanitarian efforts, regional stability, and multilateral diplomacy, it has largely refrained from playing a decisive role in conflict resolution and global power dynamics. A shift in India's foreign policy approach, arguing that economic development and geopolitical engagement must go hand in hand, rather than being treated as separate endeavors.

India's Historical Geopolitical Involvement

India has a history of decisive political and military actions in regional conflicts, demonstrating its ability to shape outcomes:

Hate vs Free Speech Comparison Chart		
Characteristics	Hate Speech	Free Speech
Purpose	incite violence against others	allows people to share their beliefs, thoughts, and ideas openly
Encourages debate	No, it encourages violence	Yes, it presents two sides of an issue
Effect on Society	Degrades the society through unnecessary factions	Improves the society through social change
Effect on oneself	Hurts oneself and gets socially punished	Generally gets supported
Attitude towards minority	Prejudiced	Protects and values
Humane	No	Yes
Hate Crime	Pro	Against

India's geopolitical vision should be larger

After this month, Russian President Vladimir Putin thanked world leaders, including Prime Minister Narendra Modi, for their "noble mission" to end the fighting between Ukraine and Russia. This has brought cheer to Indians.

But there is a question to be asked - Why has India refrained from playing a more active political role in regional and international conflicts around the world?

This is all the more surprising when one considers the decisive steps taken by Indian leaders in conflicts in the neighbourhood whether, inter alia, in Bangladesh in 1971 when India helped stop a genocide and give birth to a new nation; in the Maldives in 1988 by stopping armed mercenaries overthrow its President; in Sri Lanka in 2009 by helping in the defeat of the Liberation Tigers of Tamil Eelam, etc, recently by combating piracy in the region.

Let there be no mistake. India has been an active net contributor to global public good whether through the 'Vaccine Maitri' initiative during the COVID-19 pandemic, robust climate action which includes establishing the International Solar Alliance, the sharing of digital public infrastructure to the world or its role as first responder during natural disasters.

A reticence

However, in the last two decades, India has, rightly, prioritised economic growth, both under the United Progressive Alliance and National Democratic Alliance governments. This has catapulted India to the rank of fifth largest economy. Having reached there, we seem to have convinced ourselves that if we take an active political role in global or regional conflicts, it could adversely affect our growth and development.

India's reticence may also stem from the fact that it feels that getting involved in regional conflicts will upset the strong bilateral relations that have been carefully cultivated with countries. Or that these conflicts are best left to key players in that region and outside, like in West Asia where India has big stakes but does not want to be more proactive; the Gulf countries, which are hush-hush to the unfolding tragedy in Gaza and the region. Yes, all of the above has some rationale. At a time when the world order is disintegrating, and with India having global ambitions of its own, India's geopolitical vision should be larger, which will only help, not hinder, our economic ambitions.

Historically, one will be right to say that India provided political leadership to the Non-Aligned Movement to empower developing countries emerging from colonialism to find their voice. One might also be right to say that our multi-alignment policy of today is an equally compelling political stand to navigate geopolitical fissures by strengthening our bilateral relations with every key country, that non-alignment was also for the Global South while multi-alignment is primarily for us.

However, when a country becomes the fifth largest economy, prides itself as a thriving democracy, aspires for a United Nations Security Council (UNSC) seat as a permanent member and also aspires to be an important pole in a multipolar world, the expectations of the international community from India only increase. India needs to do much more than take a stand or be a bystander. If in the UNSC, India claims that decisions are not credible without the participation of the world's largest democracy, then this logic applies equally to decisions taken outside the UNSC.

Mr. Putin's statement is an expression of gratitude to India's Prime Minister, who made a bold statement in his visiting Russia last year in the midst of the Ukraine war. India's decision to abstain on UNSC votes on the war, when there was considerable pressure to vote against Russia, influenced big developing countries to take a more balanced position on the war. Further, Mr. Modi had conveyed to the Russian President earlier that this is "not an era of war" and pressed him not to use nuclear arms. But Mr. Putin's statement is also a subtle encouragement to India to play a much bigger role. When India is one of the few countries with credibility which can speak to both Russia and Ukraine, should it not be on the high table?

There is a global reset

The flip side is that if India does not meet those expectations, it is ceding space to countries such as Turkey or Saudi Arabia or Qatar, to tackle conflicts in Europe, West Asia, Africa, or the South China Sea, where the stakes for India are high. The meeting between Ukraine and Russia in 2022 took place in Turkey. The U.S.-Russia and U.S.-Ukraine talks that took place in Saudi Arabia recently, fit into an ambitious Saudi Arabia's version of multi-alignment. And just now, the Presidents of Rwanda and Democratic Republic of Congo met in Qatar to forge a ceasefire in eastern Congo. Further, geopolitical clout is something the Trump 2.0 administration recognises, unlike when India was ignored by its 'strategic partner' the U.S. during Trivika Plus talks in Afghanistan, or in Bangladesh recently, in India's own neighbourhood.

India must not treat economic development and geopolitics as mutually exclusive. In a 'Trumpian' world, India must not treat economic development and geopolitics as mutually exclusive. In a 'Trumpian' world, India must not treat economic development and geopolitics as mutually exclusive. In a 'Trumpian' world, India must not treat economic development and geopolitics as mutually exclusive.

Given that its adversarial relations with China are not going to vanish anytime soon and its trade deficit with China is set to increase with the supply chains closely linked, strengthening of alignments with friends in theatres outside the region is key. It becomes even more relevant when the U.S. and China move towards a "deal" which could end up dividing regions into their spheres of influence and the balance of power shifts in Asia, where the Quad (India, Japan, Australia and the U.S.) could potentially lose its strategic relevance and India comes under pressure.

A time for a shift and also reform

This calls for regional policies, since regional policy is not just the sum of India's bilateral relations with countries in that region, be it West Asia or Central Asia. For example, India developed close bilateral relations with the Central Asian countries and important regional stakes, but downplayed its participation in the regional grouping, the Shanghai Cooperation Organisation. East Asia demands India's enhanced attention too, especially after its refusal to join the Regional Comprehensive Economic Partnership (RCEP). This is the time for a strategic shift towards Europe, which is under pressure. And also a time to undertake internal economic reforms to enhance India's competitiveness and meet U.S. expectations on a bilateral trade agreement, which could be the fulcrum for a broader engagement with the Trump 2.0 administration. However, being proactive in conflicts does not mean that India becomes a mediator or passes messages from one party to another. Further, waiting for warring parties or a dominant power such as America to settle India may be a prudent policy, but they will not ask India unless New Delhi conveys its readiness to be a geopolitical player committed to international peace and security.

For example, India played an important role, but not a meddlesome one, in the Korean war in the UN Security Council between 1950-52 nearly four years after Indian independence. The fact that India was an impoverished nation did not deter it. Its recognition, it was made chair of the Neutral Nations Repatriation Commission. During India's recent stint in the UNSC 2022, it was a bridge for divergent views.

Therefore, in a 'Trumpian' world, and as the world order gets shaped in favour of the big powers, both old and new, and when there is geopolitical fragmentation, even unilateralism, let us not treat economic development and geopolitics as mutually exclusive. We need to practice multi-alignment in all its dimensions to gain the full benefits. India should use the window of Trump 2.0 and emerge as a major power by actively shaping a disintegrating world order.

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- **Bangladesh Liberation War (1971):** India played a pivotal role in ending the genocide committed by the Pakistani military in East Pakistan, leading to the creation of **Bangladesh**.
- **Operation Cactus (1988):** India deployed its military to thwart an attempted coup in **the Maldives**, stabilizing the government of President Maumoon Abdul Gayoom.
- **Sri Lanka (2009):** While India provided diplomatic and intelligence support in the final phase of Sri Lanka's war against the **LTTE (Liberation Tigers of Tamil Eelam)**, it maintained a limited military role.
- **Anti-Piracy Operations:** India has actively protected international shipping routes in the Indian Ocean from piracy threats, demonstrating its **regional security leadership**.

However, in the past two decades, India's focus has shifted primarily to **economic growth**, both under the **United Progressive Alliance (UPA)** and **National Democratic Alliance (NDA)** governments. This approach, while beneficial for domestic development, has limited India's global influence in key geopolitical conflicts.

Recent Geopolitical Engagements and Challenges

Russia-Ukraine Conflict: Balancing Relations Amid Global Pressures

India has adopted a **neutral stance** on the Russia-Ukraine war, prioritizing its strategic and economic interests:

- India has **abstained from voting against Russia** at the United Nations Security Council (UNSC) despite pressure from Western countries.
- **PM Narendra Modi's visit to Russia** and his remark that "this is not an era of war" gained global attention, positioning India as a nation advocating diplomacy over conflict.
- Russian President **Vladimir Putin's recent appreciation** of India's role indicates that India is seen as a **credible negotiator** that can engage with both Russia and Ukraine.

BRIDGING THE GAP

Indian presence in Chabahar is expected to offset Chinese presence in Pakistani port of Gwadar

- **COST CUTTER** The port will be used to ship crude oil and urea, greatly reducing India's transportation costs
- **AFGHAN CONNECT** A railway line, to be built by Ircon International, will connect Chabahar port to Zahedan on Afghan border
- **BIGGER LINK** The port will link to International North-South Transport Corridor that will connect India with Azerbaijan, Turkmenistan and other Central Asian trading partners

Despite this, India has not taken an active mediatory role, leaving the space open for countries like **Türkiye** and **Saudi Arabia** to facilitate peace talks.

New Opportunities

Europe has banned import of Russian refined products
Those countries need replacements from other countries

India can increase exports to Europe by taking Russian volumes for domestic use

Imports of Russian fuel will depend on discounts, transport and insurance costs
India competes with Africa, Middle East, South America for discounted Russian fuels.

URAL TIES
Russia is top supplier of crude to India, making up 28% of India's imports
Fuel oil imports from Russia have also risen to record levels in recent months

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Energy

- 70 per cent of India's imported energy needs come from West Asia

Indian Diaspora

- Over 9 million Indians are working in West Asia. Therefore, stability in the region is high on India's core agenda.

Foreign Remittance

- India is the largest recipient of foreign remittances from West Asia

Counter Terrorism and Radicalisation

- Due to the geographical proximity, close cooperation with West Asia is important to prevent spread of terror outfits like Islamic State and associated radical ideology into India

Gate way to Central Asia

- West Asia is gate way to land locked and energy rich Central Asian region

Defence Cooperation

- India has been deepening defence cooperation with countries like United Arab Emirates, Saudi Arabia and Oman
- India recently secured access to strategic Port of Duqm in Oman in Arabian Sea for military use and logistical support
- India and the UAE have agreed to deepen their defence cooperation in a range of areas including military-to-military exchanges, training of personnel and defence production

Challenges

- Deteriorating security situation in West Asia ever since the onset of the Arab Spring in December 2010
- The worst internal security situation in Syria, Iraq and Yemen
- Islamic terrorism and the rise of the Islamic State and other terror groups has created a threat to the Indian diaspora residing in West Asia
- Radicalisation of Indian youth in West Asia and they joining Islamic State has been another major problem

diplomacy and trade agreements. However, it has **downgraded** its engagement with the **Shanghai Cooperation Organisation (SCO)**, a key regional grouping dominated by China and Russia.

- India's reluctance to fully participate in the SCO is driven by China's increasing influence in the region.
- Despite having strong energy and security interests in Central Asia, India's limited participation reduces its ability to counterbalance China's growing footprint.

West Asia (Middle East): A Passive Approach in a Critical Region

West Asia is crucial for India due to its:

- Energy dependency (India imports over 50% of its oil from the Gulf region).
- Migrant workforce (over 8 million Indian expatriates live in the region).
- Strategic partnerships (especially with the UAE, Saudi Arabia, and Iran).

However, India has largely remained **passive in conflicts like the Israel-Gaza war**, while other nations such as **Türkiye, Saudi Arabia, and Qatar** have taken active roles.

- Türkiye hosted negotiations between Ukraine and Russia.
- Saudi Arabia mediated talks between the U.S. and Russia, as well as the U.S. and Ukraine.
- Qatar facilitated ceasefire negotiations between Rwanda and the Democratic Republic of Congo.

By not engaging deeply, India risks losing **geopolitical influence** in a region that is central to its economic and security interests.

Central Asia: Strong Bilateral Ties but Weak Regional Presence

India has cultivated strong relations with Central Asian nations through bilateral

Transitioning to a Multipolar World
Challenges and Opportunities in Navigating a Fragmented Global Order

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The Multipolar Shift
The global order is undergoing a seismic transformation, transitioning from the unipolar dominance of the post-Cold War era to an increasingly multipolar landscape. With emerging powers like China, India, and Brazil challenging the traditional dominance of Western nations, this new global order is marked by fragmented interests and dynamic alliances. While this shift offers opportunities for collaborative progress, it also brings challenges that demand careful navigation.

Challenges in a Fragmented Global Order
The ongoing Israel-Palestine conflict has added another dimension to the complexity of a fragmented global order. This long-standing geopolitical issue highlights the challenges of achieving a unified international response, as nations often take polarized stances based on historical ties and strategic interests. The recent escalation has not only deepened regional instability but has also exposed the limitations of global institutions in resolving protracted conflicts.

The Forces Behind Multipolarity
India's Unified Payments Interface (UPI) is a testament to how emerging powers are contributing to the global technological shift. Widely adopted for seamless financial transactions, UPI is now being integrated into the payment systems of countries like France, Singapore and the UAE, showcasing India's technological leadership in financial innovation.

The transition to a multipolar world is driven by significant economic, technological, and geopolitical changes. Emerging economies are reshaping the global economic balance, with nations like China and India collectively accounting for over 20% of global GDP in 2023. This economic rebalancing is challenging the hegemony of Western economies and creating new centers of trade and innovation.

Technological advancements have democratized access to innovation, enabling countries to bypass traditional stages of development. Artificial Intelligence (AI), green energy, and digital infrastructure are creating competitive advantages for nations like South Korea, Singapore, and India. India's Aadhaar program, the world's largest biometric ID system, exemplifies how technology can transform governance and inclusion.

Geopolitical realigning is another driving force, as regional powers assert themselves on the global stage. The US-China strategic rivalry, Russia's actions in Ukraine, and the strengthening of regional alliances like ASEAN and the African Union signal a shift from a single global hegemon to diversified power centers.

Opportunities in a Multipolar World
Despite these challenges, a multipolar world offers unique opportunities. Diverse leadership enables collaborative efforts to address global challenges like climate change and pandemics. Initiatives such as the Paris Agreement and COVAX demonstrate the potential of collective action.

Regional cooperation is becoming increasingly relevant. Alliances like BRICS and the European Union are fostering economic growth and integration. For example, BRICS nations have launched initiatives to enhance trade and investment, showcasing the power of regional partnerships.

Technological innovation is also bridging gaps. Kenya's mobile banking system, M-Pesa, has transformed financial inclusion in Africa, demonstrating how innovation can drive progress even in resource-constrained settings. Decentralized power centers encourage balanced cultural and knowledge exchange, enriching global dialogue and fostering mutual understanding.

India's Role in the Multipolar World
India occupies a unique position in this evolving global order. Its GDP projection in 2025 highlighted its commitment to inclusive growth and sustainable development. The knowledge with the US through QIAD, energy agreements with Russia, and developmental assistance to Africa underscores India's ability to balance competing interests.

Domestically, India's focus on digital transformation, infrastructure development, and renewable energy aligns with its aspirations to lead in a multipolar world. The International Solar Alliance, co-founded by India, exemplifies its leadership in global climate action, showcasing its ability to address critical global challenges.

To thrive in a multipolar world, nations must adopt inclusive and adaptive strategies. Reforming multilateral institutions to include emerging powers like India and Brazil can ensure equitable representation in global governance. Building resilience against global shocks such as climate change and pandemics will require coordinated efforts across borders. Furthermore, fostering cooperation among governments, businesses, and civil society is essential for tackling shared challenges effectively.

Towards a Balanced Global Order
The transition to a multipolar world is both inevitable and transformative. While challenges such as geopolitical rivalries and economic disparities persist, the opportunities for collaborative progress and innovation are immense. By fostering dialogue, reforming institutions, and leveraging diverse leadership, the global community can navigate this fragmented order effectively.

A multipolar world offers the chance to move beyond dominance and hierarchy, creating a future where every nation contributes to a balanced and resilient global order. The key lies in embracing inclusivity, adaptability, and mutual respect, ensuring that this transition paves the way for a more equitable and prosperous world.

Indo-Pacific and the Quad: Countering China but Facing Uncertainty

The Indo-Pacific region remains one of India's top strategic priorities, given:

- China's aggressive expansion in the South China Sea and Indian Ocean.

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- India's role in the Quad alliance (U.S., Japan, Australia, India) to maintain regional stability.
- Growing defense partnerships with Japan, Australia, and France.

However, under a potential Trump 2.0 administration, the U.S.-China relationship could see a shift. If the U.S. reaches a strategic understanding with China, it could reduce the relevance of the Quad, leaving India in a difficult position.

U.S. and Europe: Strengthening Ties Amid Changing Global Order

- Europe is under economic and strategic pressure, especially with the ongoing Russia-Ukraine war and growing far-right politics.
- India must enhance its engagement with Europe, focusing on defense, technology, and trade partnerships.
- A bilateral trade agreement with the U.S. could serve as a foundation for stronger geopolitical cooperation.

However, under a "Trumpian" foreign policy, the U.S. might prioritize economic nationalism and unilateralism, making it crucial for India to secure its interests proactively.

Why India Needs a Strategic Shift ?

Avoiding Geopolitical Marginalization

- If India remains a bystander, it risks being sidelined in global conflict resolution, with emerging players like Türkiye, Saudi Arabia, and Qatar taking the lead.
- The world order is resetting, and major powers are carving out spheres of influence. India must ensure it has a seat at the table.

Strengthening Regional Policies

- India's regional policy cannot be just a sum of its bilateral relations. It must engage in regional groupings like:
 - The Shanghai Cooperation Organisation (SCO) in Central Asia.
 - GCC (Gulf Cooperation Council) in the Middle East.
 - The African Union for security and trade partnerships.

India Acts East
With its Act East policy, India hopes to deepen its political, economic and security relationships with the countries of Southeast Asia and the wider Indo-Pacific. Balancing against the rise of China is a key driver.

- China:** India views the rise of its principal strategic rival as a serious challenge and is forging relations with countries along its periphery to maintain the balance between them
- ASEAN:** Boosting exports with the 10 members of the Association of Southeast Asian Nations is a core plank of Modi's Act East policy
- Australia:** China's rise has compelled India's outreach to Australia to forge a stronger defense partnership
- South Korea:** India wants to deepen trade, investment and security ties with this regional economic power
- Japan:** The key regional power shares India's concerns over China's expansion
- Northeast India:** New Delhi wishes for its remote northeastern wing to serve as a trading hub that connects to Southeast Asia through Myanmar

Source: IMF Copyright Stratfor 2020

Ukraine and the anatomy of India's neutrality
Nehruvian axiom continues to guide New Delhi's approach to conflicts, especially those involving its partners

By STEVEN JOHN

Pressure and public criticism from the West that India has, U.S. President Joe Biden said India's position "is somewhat shaky". His Deputy National Security Advisor for International Economic Policy, Deep Singh, who was in New Delhi on a visit recently, wanted India to "consequences" if it conducts trade with Russia circumventing American sanctions. Why this selective targeting?

Analysing the reasons
There could be three broad reasons—political, economic, and strategic. From a political point of view, the West has carefully tried to construct a narrative that Russia President Vladimir Putin's attack on Ukraine is an assault on "the free world". This narrative would look weak if the world's largest democracy (India) sits out of the West-led bid to punish the Russians. From an economic point of view, sanctions on Russia were imposed largely by western countries, South Korea and Singapore, which have backed the sanctions—Japan, the world's second largest economy, would not abide by the American sanctions. India also continues to trade with Russia, working around the payment curbs, and the Russian invasion of Ukraine is the most important global crisis since the end of the Cold War. India has its own strategic partnership with the U.S. and the West in general, and is working to, as Bush Dougi argues in *The Long Game*, blunt America's existing power and displace the American order at the global level. Russia is a weak and the near-total breakdown in ties between Russia and the West, countries such as India are now faced with a difficult choice of picking a side or the transformation of India's partner-

partners and one is a competitor. The question India itself a middle power faces is why it should take side in a confrontation that unfolds in Europe between two of its partners, which could eventually leave its competitor stronger. Here, neutrality is the best among the bad options.

Moreover, every country formulates its foreign policy based on its national interests, not external commitments. The U.S. led NATO bombed Yugoslavia for 78 days in 1999 when it thought the campaign would serve the interests of American leadership in the post-Cold War world. It invaded Iraq in 2003 because it wanted to reshape West Asia. It destroyed the state of Libya when it decided to do so. The U.S. is now working to punish Russia not primarily out of its moral commitments (which is best is selected) but because the crisis in Russia has opened opportunities for the U.S. to weaken Russia, its biggest rival in Europe.

But India's national interests are aligned with those of India. India's interests are not served with a weakened, isolated Russia. On the contrary, India needs Russia not only for defence and energy purposes but also for geopolitical reasons. India is as much a continental power as it is a maritime power. While close ties with the U.S., Japan and Australia are important for India and cover all interests, ties with Russia, Iran and the Central Asian countries are important for its continental security and interests, especially after the U.S.'s ignominious withdrawal from Afghanistan.

The tragedy of Ukraine
Essentially, the West is not a bystander in the whole Ukraine crisis. Ukraine was promised NATO membership in 2008 which it never got. The promise itself was enough to shake up Russia's security calculations and Moscow moved aggressively, annexing Crimea and supporting military in Donbas. The U.S. continued to provide money and limited weapons to Kyiv but never took any meaningful measure to bolster Ukraine's deterrence against Russia. Here, neutrality is the best among the bad options.

It is because he thought that NATO would not be in a position to defend a country that was not a member of the alliance. While Ukraine's neutrality has denied Russia its early military objectives in Ukraine, Moscow might succeed in getting Ukraine President Volodymyr Zelenskyy to accept neutrality and might also end up controlling more Ukrainian territories than it did before February 24. That is the tragedy of Ukraine. So, the West not only failed to deter Mr. Putin, but its limited responses to his war are also pushing Russia deeper into the Chinese embrace. Here, should India accelerate this embrace by boosting the anti-Russian Western line or remain in terms of engagement with Moscow which could allow Russia to diversify its Asian relations? India has opted for the second option.

India is not a client state of any great power. Even client states have not joined the sanctions regime. It is not a member of any alliance system—the Quad (India, Australia, Japan and the U.S.) is not an alliance. Like any other power, India also retains the right to take policies based on pragmatic realism and its national interests. And India thinks that a neutral position anchored in strategic autonomy which keeps channels open with both sides to what serves its interests. It does not mean that India supports the war. It has not. The U.S., India's most important strategic partner, does not seem to appreciate these nuances. It has the public statements from Washington suggest that.

Source: pragnyaiasacademy.com

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Economic Development and Geopolitical Strategy Must Align

- India should not see economic growth as separate from global political engagement.
- As seen in China's Belt and Road Initiative (BRI), economic power translates into political influence.
- India must combine its economic strengths with strategic diplomacy to shape international relations.

Engaging in Conflict Resolution Without Direct Mediation

- India does not have to act as a direct mediator but can play a role in shaping peace dialogues.
- It must convey its readiness to be a major geopolitical player, rather than waiting for an invitation.
- This is similar to India's role during the Korean War (1951-52), where it was a bridge for divergent views in the UNSC.

India's Role in a Fragmented World Order

The global power structure is undergoing a major transformation, with new alliances and regional conflicts shaping the future. The U.S. and China may negotiate their spheres of influence, the Quad may weaken, and regional players like Türkiye and Saudi Arabia are emerging as diplomatic leaders.

In this context, India cannot afford to remain passive. It must:

- Assert its role in global conflict resolution.
- Strengthen regional alliances beyond bilateral ties.
- Integrate economic growth with geopolitical strategy.

If India wants to be a permanent UNSC member and a key pole in a multipolar world, it must actively shape the international order, not just react to it.

Balanced & In National Interest

On the continuing Ukraine conflict, India's stand, led by PM Modi, has stood the test of time



TS Trumurti

It was a matter of coincidence that the conflict in Ukraine commenced while the UNSC was meeting on the matter. It took almost everyone by surprise, including the UN secretary general. Europe and the West reacted with outrage. Many of their permanent representatives, faced with an unprecedented situation on their "home turf", became aggressive. And when India decided to abstain on the first vote in the Security Council on February 27, there was such consternation and anger.

But our decision of February 27 was not taken lightly. As we mentioned in our explanation of vote, "taking into consideration the totality of the circumstances, we have decided to abstain." Over the last several months, we have done exactly that - taken decisions bearing the totality of the circumstances and our own national interests in mind. India advocated the same for this conflict as we have done elsewhere - immediate cessation of hostilities and return to path of dialogue and diplomacy.

Considerable pressure was brought to bear on India both in Delhi and in New York. We faced pushbacks from our friends. It was in the midst of all this that UN Secretary General Guterres saw an opportunity in India's balanced stand. He mentioned to me that India, as a democracy with a strong leadership, was in a unique position to talk to both sides. He requested our leadership to do so and underline the need for an immediate ceasefire and return to negotiations.

This was completely in line with our own stand and that of the PM. PM Modi himself spoke to the Russian and Ukrainian presidents on many occasions. While neither side may have come to the negotiation point yet, a bridging role for India to resolve the conflict is still the cards.

While our priorities were fine-tuned as days went by, our overall position and policy remained steadfast. To begin with, India had more than 22,000 students studying in Ukraine. We managed to evacuate them to safety. In a chaotic and deteriorating landscape, bearing the brunt of one student. Even the situation in Stryi where 700 students were held up.

was resolved with proactive but quiet diplomacy in Delhi and New York.

Western powers reacted in the way they are used to - impose severe sanctions on Russia. They pushed Ukraine for a robust military response. "Negotiations" seemed a bad word and neither side was given an opportunity to pursue this seriously. The fact that there are now more than 7 million refugees from Ukraine in Europe and millions more internally displaced, has not moved any of the sides or their sponsors to give diplomacy a chance.

The first casualty of supply of heavy duty arms to Ukraine from the US, UK and elsewhere has been dialogue, while arms manufacturers have seized the opportunity to test their latest wars.

Recent military reverses for Russia indicate that there can be no military solution - both sides have to be coaxed to the negotiating table. That's what India has been calling for all along. However, with the West pushing for further military gains by Ukraine and with China caught in a cliff-edge with its manufacturing space in the post-Tiump world being circumscribed by the conflict, the sagacity of India's call to not probing the misery has not yet been fully appreciated.

UN secretary general had requested India's leadership to talk to both sides and underline the need for a return to negotiations. This was completely in line with our own stand and that of the PM. PM Modi himself spoke to the Russian and Ukrainian presidents on many occasions. While neither side may have come to the negotiation point yet, a bridging role for India to resolve the conflict is still on the cards

What is equally tragic is the disregard for the needs of the Global South. The impact of the conflict not just paralyzed the work of the UN in the first three months but soon exacerbated food, fertilizer and fuel insecurity especially in the developing countries.

Resulting the impact on food security.

The article serves as India's Permanent Representative to the United Nations in New York.

Prelims Practice Question

With reference to India's evolving geopolitical role, consider the following statements:

1. India has historically taken an active role in regional conflicts, such as the Bangladesh Liberation War and Operation Cactus in the Maldives.
2. India's current foreign policy prioritizes economic growth over proactive geopolitical engagement.
3. India has been an active mediator in the Russia-Ukraine conflict, facilitating direct peace talks between both nations.

Which of the statements given above is/are correct?

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

PRAGNYA BHARATHI: Detailed News Analysis (DNA)**Answer:****Correct Option: (a) 1 and 2 only****Explanation:**

- **Statement 1 is correct:** India played a significant role in regional conflicts, such as **helping Bangladesh gain independence in 1971**, intervening in the **Maldives in 1988** to prevent a coup, and assisting **Sri Lanka in its fight against the LTTE in 2009**.
- **Statement 2 is correct:** In the past two decades, India has focused more on **economic growth**, balancing its foreign policy engagements with development priorities.
- **Statement 3 is incorrect:** While India has maintained **neutrality** and urged diplomacy in the **Russia-Ukraine war**, it has **not acted as a direct mediator** in negotiations. Countries like **Türkiye and Saudi Arabia** have played more active mediation roles.

Thus, the correct answer is **(a) 1 and 2 only**.**Mains Model Question**

Q. India has historically played an active role in regional conflicts, yet in recent years, its geopolitical engagement has been characterized by strategic caution. In the context of emerging global realignments, discuss the need for India to adopt a more proactive geopolitical stance while balancing economic priorities.

India's foreign policy has evolved from a regional security provider to a cautious global player, emphasizing economic growth and strategic autonomy. Historically, India has actively intervened in regional conflicts, such as its role in the Bangladesh Liberation War of 1971, the military intervention in the Maldives in 1988, and its involvement in Sri Lanka's counterinsurgency operations. However, in

recent years, India has refrained from direct involvement in global conflicts, opting for diplomatic neutrality, as seen in the Russia-Ukraine war, where India abstained from UNSC resolutions while advocating dialogue.

The current global scenario, marked by geopolitical fragmentation, rising protectionism, and realignments such as the growing influence of China and the resurgence of right-wing politics in the West, demands a recalibration of India's approach. While economic priorities remain crucial, geopolitics and economic growth cannot be treated as mutually exclusive. India's aspirations for a permanent seat in the UNSC, its position as the world's fifth-largest economy, and its growing strategic partnerships necessitate a larger role in shaping global security.

By adopting a proactive stance, India can secure its strategic interests, particularly in regions like West Asia, Central Asia, and the Indo-Pacific. Engaging in global peace efforts, enhancing regional security partnerships, and countering China's influence through multilateral forums like the Quad and SCO will strengthen India's global position. A well-calibrated strategy, balancing economic interests with active geopolitical engagement, will reinforce India's emergence as a major pole in a multipolar world.

Topic : Bangladesh-China Teesta Project and Its Implications for India

Relevance : GS Paper 2 International Relations

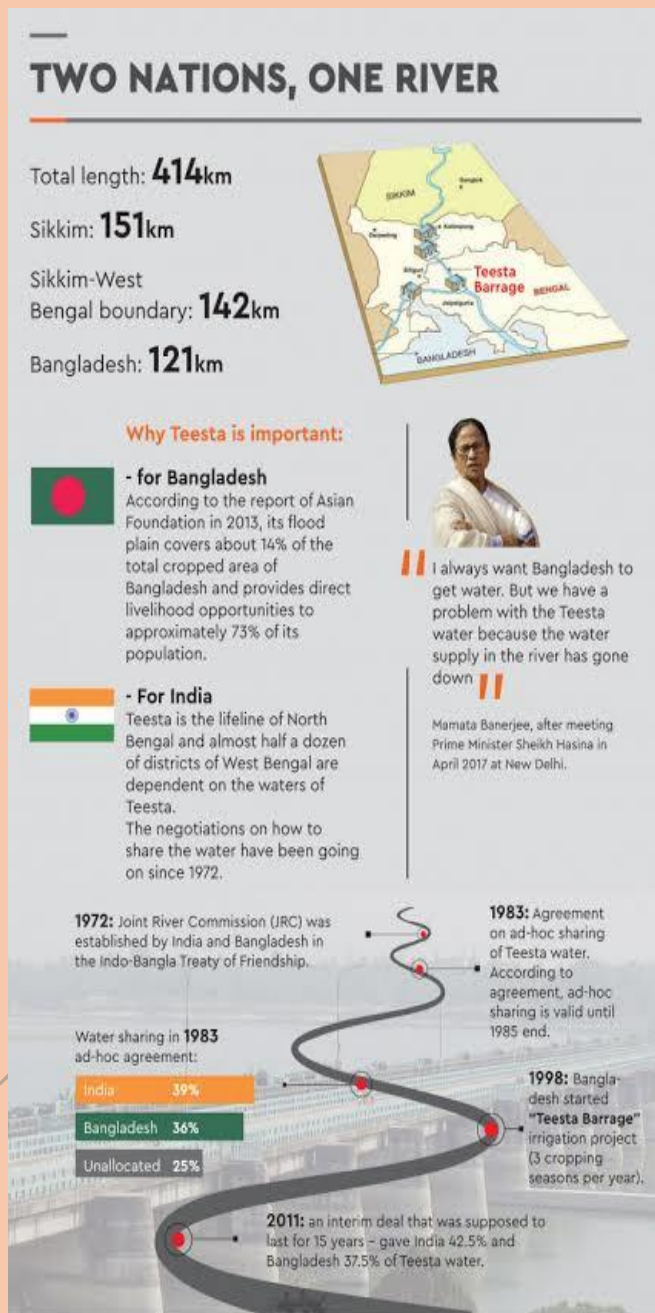
Source : Indian Express

Context :

Bangladesh has welcomed China's participation in the **Teesta River Comprehensive Management and Restoration Project**, marking a significant development in its water resource management and

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infrastructure projects. This decision comes as part of a broader effort to strengthen economic and diplomatic ties between Bangladesh and China. The announcement was made during the visit of **Bangladesh's Chief Adviser Muhammad Yunus** to China, where multiple agreements were signed, including one for **hydrological information exchange on the Yarlung Zangbo-Jamuna (Brahmaputra) River**.

**Teesta River:****Origin and Course**

- The **Teesta River** originates from the **Pahunri glacier** in the eastern Himalayas in **Sikkim, India**.
- It flows through **West Bengal** before entering **Bangladesh**, where it joins the **Jamuna (Brahmaputra) River**.
- The total length of the river is approximately **414 km**, of which about **150 km** flows through Bangladesh.

Significance of the Teesta River

- **Agriculture:** Teesta is crucial for irrigation in both India and Bangladesh. The river supports **West Bengal's agriculture**, particularly in **North Bengal**, and is vital for food security in northern Bangladesh.
- **Hydropower Potential:** The river has the potential for **hydroelectric projects**, particularly in the Himalayan foothills.
- **Livelihoods:** Millions of people depend on the river for **fishing, farming, and daily needs**.
- **Geopolitical Importance:** Since the river flows through both **India and Bangladesh**, its management is a key issue in **Indo-Bangladesh relations**.

India's Projects on the Teesta River**Teesta Barrage Project (TBP) – West Bengal**

- India has built the **Teesta Barrage** in **Gajoldoba, West Bengal**, to control flooding and provide irrigation.
- The barrage has improved irrigation in **northern West Bengal** but has also reduced water flow to Bangladesh.

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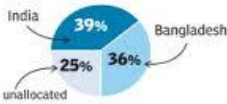
Why Delhi, Dhaka can't agree on Teesta deal

Dhaka has been pushing for this a long time but the Teesta water agreement still remains a pipe dream. While PM Narendra Modi conveyed his hopes for an "early solution" to visiting Bangla counterpart Sheikh Hasina, West Bengal CM Mamata Banerjee is reportedly not too enthusiastic about the treaty...

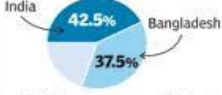
What is the dispute

► Bangladesh wants 50% of Teesta's water between Dec and May annually; India claims a share of 55%

Negotiations since 1983, preliminary deal gave



In 2011, Delhi & Dhaka struck interim deal for 15 years – India would get



► But Banerjee opposed it; signing stalled to later that year
► Teesta water-sharing agreement waiting to be signed since 2011

► Hydropower on Teesta is another point of conflict; At least 26 projects on the river mostly in Sikkim, aimed at producing some 50,000MW



The Mamata factor

► In 2011, Mamata Banerjee was to accompany then PM Manmohan Singh to Dhaka for signing deal, but cancelled trip
► Trinamool was a key UPA partner then & water is a state issue. So, deal couldn't be inked without CM's approval
► Then Bangladesh foreign minister Dipu Moni had warned bilateral ties would get complicated if India failed to deliver on Teesta



What is the Teesta

► Teesta originates in Sikkim through the Khangse and Zemu glaciers
► Its major tributary – Rangpet – joins it at Darjeeling's Teesta Bazaar
► At Mekhligunj in north Bengal's Cooch Behar, it enters Bangladesh, joins Brahmaputra
► Teesta is Bangladesh's fourth largest transboundary river for irrigation and fishing
► Teesta floodplain covers 2,750sq.km in Bangladesh
► Of Teesta's catchment, 83% in India; 17% in Bangladesh
► Its catchment supports about 10m people – and 14% of crop
► Nearly 1 lakh hectares across 5 districts impacted by upstream draws from the Teesta in India



Modi bid

► PM Modi went to Dhaka in June 2015, but visit did not yield a deal
► Following Mamata's re-election in 2016, some reports say she's a little more conciliatory now
► On a visit to Dhaka, Mamata reportedly urged Bangladesh to have confidence in her on Teesta



Bangladesh, but the agreement has not been signed due to opposition from West Bengal's government.

- West Bengal fears that releasing more water to Bangladesh will reduce irrigation for its farmers, especially in Jalpaiguri, Cooch Behar, and Darjeeling districts.

What is holding up the Teesta treaty?

What has the Indian government told Bangladesh? What is the technical team going to look into? Why is Bengal Chief Minister protesting this development? What about the Ganga water sharing agreement? When does it come up for renewal? What is the state of both the rivers?

Shiv Sahay Singh

The story so far: During the recent state visit of Sheikh Hasina, Prime Minister of Bangladesh, to India, Prime Minister Narendra Modi on June 22 said: "A technical team will soon visit Bangladesh to discuss conservation and management of the Teesta river in Bangladesh." The remark triggered fresh speculation about the Teesta water sharing treaty with Bangladesh, a key bilateral agreement that has been pending between the two countries for over a decade.

What is India's stand? After Mr. Modi's comment, Foreign Secretary Venu Venkta told the media that the discussion between the two leaders was less about water sharing per se, and more about the management of the water flows within Teesta. West Bengal Chief Minister Mamata Banerjee took issue with the Centre's stand. On June 28, she wrote a letter to Mr. Modi conveying her strong reservation that no discussion on the sharing of Teesta waters should be taken up with Bangladesh without the involvement of the State.

Why is Bengal upset? Ms. Banerjee pointed out that if Teesta's water is

shared with Bangladesh, lakhs of people in north Bengal will get severely impacted. This is not the first time she has voiced her opposition to the proposed water sharing agreement of India with Bangladesh. In July 2018, the Trinamool Congress chairperson admitted that Bangladesh is hurt because the Teesta waters could not be shared and added, "If I had the ability, I would have definitely shared Teesta waters with them." In 2017, the Chief Minister had also referred to an alternative proposal of sharing waters of the Teesta, Manohar, Sankosh and Bhairabi rivers but not Teesta. In all, 54 rivers flow between India and Bangladesh and sharing of river waters has been a key bilateral issue. India and Bangladesh agreed on the sharing of waters of the Ganga in 1996 after the construction of the Farakka Barrage and by the 2008 the issue of sharing of the Teesta came up for negotiation. In 2008, during the United Progressive Alliance II government, India and Bangladesh were close to signing an agreement on the Teesta but Ms. Banerjee walked out of the deal, and since then, the agreement has been pending.

What is the proposal? In 2011 when the proposal for sharing Teesta water was drawn up, it was said India would get 42.5% and Bangladesh 37.5% of the river water from December to March.

A tributary of the Brahmaputra, the Teesta river originates from the Tso Lhamo Lake at an elevation of about 5,280 metres in north Sikkim. The river travels for about 150 km in Sikkim and 122 km in West Bengal, before entering Bangladesh from Mekhligunj in Cooch Behar district. It flows another 140 km in Bangladesh and joins the Bay of Bengal. Teesta is Bangladesh's fourth largest transboundary river and its floodplain covers an area of 2,750 square kilometres in Bangladesh. But 83% of the river's catchment area lies in India and the remaining 17% is in Bangladesh, supporting 8.5% of its population and 14% of its crop production.

What are the political considerations? While the Awami League government in Bangladesh is facing questions from the

Opposition about the delay in inking an agreement on the Teesta, the dam for hydro-electric power generation in Sikkim and the Teesta Barrage Project at Gazoldaha in West Bengal is making the flow of the river erratic in Bangladesh, leading to either floods or scarcity of water. The visit of a technical team from India to discuss conservation of the Teesta in Bangladesh also comes amid the backdrop of China proposing major dredging work on the river and building reservoirs and embankments in 2023. The Bangladesh government has put the proposal on hold for the next four years.

Soon after returning to Bangladesh, Prime Minister Hasina announced that her country would accept India's proposal to develop the Teesta River basin. Ms. Banerjee raised questions about the health of the Teesta river after the construction of a series of hydropower projects in Sikkim, deforestation in upper catchment areas and impact of climate change. She expressed surprise that no concrete steps have been taken by the Ministry of Jal Shakti to restore the river to its original form and health on the Indian side when a bilateral cooperation between India and Bangladesh for restoration of Teesta in Bangladesh is being proposed.

Environmental activists have also been raising questions on the ecological impact of hydro-electric projects on the river. In October 2023, a glacial lake outburst triggered floods in the Teesta basin that claimed hundreds of lives and destroyed the Teesta III hydroelectric dam. Sharing of waters of transboundary rivers have been mandated by international laws including The Helsinki Rules on the Uses of the Waters of International Rivers in 1966. Article 253 of the Indian Constitution gives powers to the government to enter any transboundary river water related treaty with a riparian state.

Why is Bengal talking about Ganga treaty? The Ganga water sharing treaty with Bangladesh completes 20 years in 2020 and a renewal of the agreement is on the cards. The Trinamool Congress chairperson has pointed out that water sharing with Bangladesh has changed the Ganga's morphology and affected lakhs of people in West Bengal owing to river erosion. "Lakhs of people have been displaced from their habitation rendering them homeless and also leading to their loss of livelihood. The reduced silt load in Hooghly has impeded the nourishment of the Sundarban delta," she wrote in the letter to the Prime Minister.



Extreme weather: The flooded bank of the Teesta river following heavy downpour in Singur, West Bengal, on June 14, 2011.

China's Involvement in the Teesta Project: Impact on India

Potential Threats to India

1. Strategic Influence of China in Bangladesh

- China's involvement in the Teesta project could increase its leverage over Bangladesh, weakening India's regional influence.
- China has already invested in deep-sea ports (like Payra and Chittagong) and infrastructure projects in Bangladesh, enhancing its presence in South Asia.

2. Water Security Concerns

- If China helps Bangladesh divert or store Teesta's water, it could impact the water flow into India,

Hydropower Projects

- India has developed several hydropower projects in Sikkim, utilizing the Teesta's strong flow.
- Major projects include Teesta Stage III, Teesta Stage IV, and Teesta Low Dam Projects.

Teesta Water-Sharing Dispute Between India and Bangladesh

- Bangladesh has long demanded a fair share of the Teesta's water.
- The proposed Teesta Water-Sharing Agreement (2011) aimed to give 42.5% of the water to India and 37.5% to

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affecting irrigation and hydroelectric projects in Sikkim and West Bengal.

3. Geopolitical Pressure on India

- With China funding major projects in Bangladesh, India could face **diplomatic pressure to finalize the Teesta Water Agreement** to counter China's growing influence.
- Bangladesh may **use China as leverage** to negotiate better terms with India.

Potential Benefits for India

1. Improved Bangladesh Infrastructure

- If managed properly, a better Teesta management system in Bangladesh could **reduce flooding in West Bengal**.
- A modernized river system could ensure a **steady and controlled water flow** benefiting both countries.

2. Encouraging Counter-Investment by India

- India could respond by **boosting investments in Bangladesh**, particularly in sectors like **transport, railways, and water-sharing mechanisms**.
- This could help **maintain India's strategic influence** in the region.







3. Potential for Regional Cooperation

- Instead of direct rivalry, India could **negotiate a trilateral water-sharing agreement** with Bangladesh and China to ensure **equitable distribution** and avoid resource-based conflicts.

China's involvement in the **Teesta River Project** signals its **deepening ties with Bangladesh**, which could challenge India's strategic influence in the region. While the project could benefit Bangladesh's **agriculture and infrastructure**, India must carefully

assess its impact on **water security and regional power dynamics**. A proactive Indian approach—through **diplomatic negotiations, infrastructure investments, and enhanced cooperation with Bangladesh**—will be crucial in ensuring **India's interests are safeguarded** in the evolving South Asian geopolitical landscape.

NEW BEGINNINGS

- | | |
|--|---|
| <ul style="list-style-type: none"> > E-visa for patients from Bangladesh  > New assistant high commission of India in Rangpur, Bangladesh > New train service between Rajshahi and Kolkata  > New bus service between Chittagong and Kolkata > Commencement of goods train services between Gede-Darsana and Haldibari-Chilahati up to Dalgaon > Inland container depot to be built at Sirajganj, Bangladesh, under grant assistance  > Commencement of export of 40 MW of power from Nepal to Bangladesh through Indian grid | <ul style="list-style-type: none"> > Joint technical committee for discussions on renewal of the Ganga Water Treaty > Visit of technical delegation to Bangladesh for project on conservation and management of Teesta river inside Bangladesh  > 350 training slots for Bangladeshi police officers  > Muktijoddha scheme for medical patients with an upper ceiling of 8 lakh per patient > Bangladesh joins Indo-Pacific Oceans Initiative > Commercial agreement between NPCI and Bangladesh Bank for launch of UPI  |
|--|---|

Prelims Practice Question

Q. Consider the following statements regarding the Teesta River and its geopolitical significance:

1. The Teesta River originates in the Indian state of West Bengal and flows into Bangladesh.
2. The proposed Teesta Water-Sharing Agreement between India and Bangladesh has been signed and implemented.
3. China's involvement in the Teesta River project in Bangladesh could impact India's water security and regional influence.

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Which of the statements given above is/are correct?

- (A) 1 and 2 only
(B) 3 only
(C) 1 and 3 only
(D) 2 and 3 only

Answer:

Correct Option: (B) 3 only

Explanation:

- Statement 1 is incorrect – The Teesta River originates from the Pauhunri Glacier in Sikkim, India, not West Bengal. It flows through West Bengal before entering Bangladesh.
- Statement 2 is incorrect – The proposed Teesta Water-Sharing Agreement (2011) has not been signed due to opposition from the West Bengal government.
- Statement 3 is correct – China's involvement in the Teesta River project in Bangladesh could impact India's water security and reduce India's regional influence, as it strengthens China-Bangladesh ties.

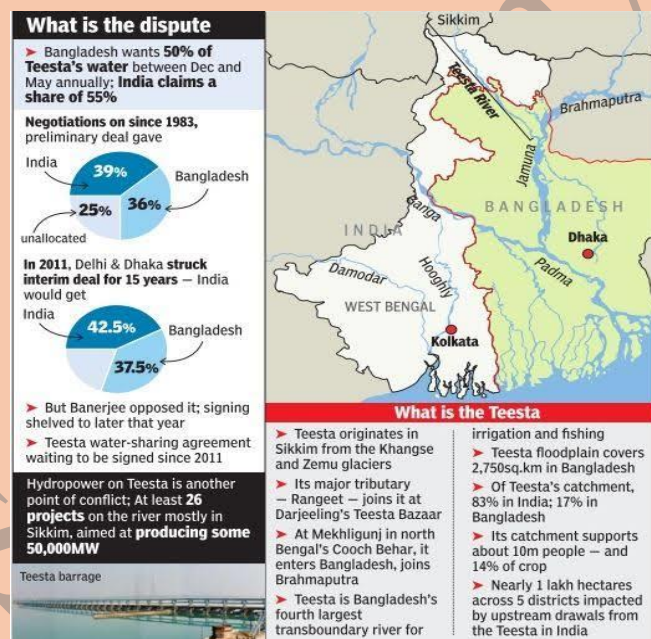
Thus, the correct answer is (B) 3 only.

Mains Model Question

Q. China's involvement in the Teesta River Project in Bangladesh has raised concerns for India's water security and regional influence. Discuss the implications of this development and suggest how India can respond effectively.

China's growing role in Bangladesh's Teesta River Project signals a significant shift in regional geopolitics, with direct implications for India. The Teesta River, originating in Sikkim and flowing through West Bengal into Bangladesh, is crucial for irrigation and water management in both countries. The long-

pending Teesta Water-Sharing Agreement between India and Bangladesh remains unresolved due to domestic opposition within India, particularly from West Bengal. This delay has pushed Bangladesh to seek alternative solutions, opening the door for Chinese investments.

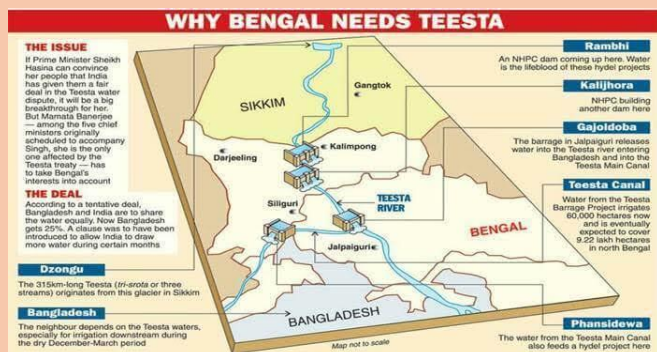


China's involvement could enhance Bangladesh's irrigation capabilities and flood control, but it raises concerns for India. Strategically, it allows China to deepen its influence in South Asia, challenging India's traditional leadership in the region. If China assists Bangladesh in storing or diverting Teesta waters, it could impact India's irrigation and hydroelectric projects in North Bengal and Sikkim. Additionally, China's expanding footprint in Bangladesh's infrastructure—such as investments in ports, roads, and energy—could tilt regional diplomacy in Beijing's favor, diminishing India's strategic leverage.

To counter this challenge, India must act proactively. Diplomatic efforts should be intensified to finalize the Teesta Water-Sharing Agreement, ensuring a fair

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distribution of resources while addressing West Bengal's concerns.



Additionally, India should enhance its own infrastructure investments in Bangladesh, particularly in water management, trade, and connectivity. Strengthening bilateral ties through people-centric policies, economic partnerships, and cultural exchanges will also help sustain India's influence. Rather than seeing China's involvement as a direct threat, India can explore trilateral cooperation, ensuring that the Teesta River remains a shared resource that benefits all stakeholders without compromising national interests.

Topic : ISRO's Breakthrough in Semicryogenic Engine Development for LVM3

Relevance : GS Paper 3 Science and Technology

Source : The Hindu

Context :

The Indian Space Research Organisation (ISRO) has achieved a significant milestone in the development of a **semicryogenic engine** for its **Launch Vehicle Mark-3 (LVM3)**. The first successful hot test of the **Engine Power Head Test Article (PHTA)** was conducted at the **ISRO Propulsion Complex, Mahendragiri, Tamil Nadu**, marking a major step forward in India's space propulsion technology. This new **2,000**

kN (kilonewton) thrust semicryogenic engine, designated as **SE2000**, will replace the current **L110 liquid core stage of LVM3**.

ISRO sees breakthrough in semicryogenic engine development for LVM3

Press Trust of India
BENGALURU

ISRO has announced significant progress in the design and development of a semicryogenic engine, or liquid oxygen/kerosene engine, with a high thrust of 2,000 kN (kilonewton) that will power the semicryogenic booster stage of the Launch Vehicle Mark-3 (LVM3).

The first major breakthrough in the semicryogenic engine development programme was achieved on Friday, when the first successful hot test of Engine Power Head Test Article, was carried out at ISRO Propulsion Complex, Mahendragiri, Tamil Nadu, said the organisation.

Highlighting that the test demonstrated the smooth ignition and boost strap mode operation of the engine for a test duration of 2.5 seconds, the space agency said the objective of the test was to validate the integrated performance of the critical



Trial turf: The test was carried out at the ISRO Propulsion Complex in Mahendragiri, Tamil Nadu, on Friday. ISRO

sub-systems by carrying out a hot-firing for a short duration of 2.5 seconds.

"The test proceeded as predicted and all the engine parameters were as expected. With this breakthrough, ISRO is further planning a series of tests on the PHTA to further validate and finetune the performance before the realisation of the fully integrated engine," reads the statement.

Noting that the Liquid Propulsion Systems Centre (LPSC) is developing the

semicryogenic propulsion engine and stage, the ISRO said the stage (SC120) powered by the 2,000 kN semicryogenic engine (SE2000) will replace the present core liquid stage (L110) of LVM3.

Induction of the semicryogenic propulsion system along with an updated cryogenic stage in the LVM3 vehicle enhances its payload capability from 4 tonne to 5 tonne in Geosynchronous Transfer Orbit (GTO), the Space Agency said.

The test was crucial to **validate the ignition process and boost strap mode operation** of the engine, ensuring that its subsystems function as expected. The 2.5-second test demonstrated smooth ignition and expected engine behavior, confirming the feasibility of the semicryogenic propulsion system. ISRO has planned a series of further tests to refine and validate the engine's performance before integrating it into the LVM3 launch vehicle.

Understanding LVM3 (Launch Vehicle Mark-3)

LVM3, formerly known as the **Geosynchronous Satellite Launch Vehicle Mark III (GSLV Mk III)**, is India's most powerful operational launch vehicle. It is designed for **heavy-lift missions**, primarily for placing satellites into **Geosynchronous Transfer Orbit (GTO)** and **Low Earth Orbit (LEO)**.

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Significance of LVM3:

- It has been used in Chandrayaan-2, Chandrayaan-3, and Gaganyaan's test missions.
- It is India's preferred vehicle for commercial satellite launches and human spaceflight missions (Gaganyaan).
- LVM3's increased payload capacity with the new semicryogenic engine will enhance India's competitiveness in the global space launch market.

ISRO has a problem: many rockets, but too few satellites to launch

The Indian space programme used to follow a supply-driven model ISRO would launch satellites and then look for customers for services provided by the satellites. This changed to a demand-driven model in 2019-2020, in which a satellite is built and launched only if there is already demand for it

Pradeep Mohandas

On June 5, Somnath, Chairman of the Indian Space Research Organisation (ISRO) and Secretary of the Department of Space, said ISRO's launch vehicle capability was three-times the demand. Many experts in the spaceflight sector and beyond interpreted this to mean the space launch market was grim. Mr. Somnath also suggested strong demand was needed for launch vehicles from the domestic Indian market.

India currently has four launch vehicles: the Small Satellite Launch Vehicle (SSLV), the Polar Satellite Launch Vehicle (PSLV), the Geosynchronous Satellite Launch Vehicle (GSLV), and the Launch Vehicle Mark-III (LVM-3). These rockets can launch satellites weighing up to four tonnes to the geosynchronous orbit. India also relies on foreign launch vehicles, the European Ariane 5 and SpaceX's Falcon 9, when a satellite weighs more than four tonnes.

At present, the country operates a fleet of satellites with applications in communication, remote sensing, positioning, navigation and timing (PNT), meteorology, disaster management, space-based internet, scientific missions, and experimental missions. It also needs launch vehicles for space missions like Chandrayaan 3 and Aditya L1.

All this makes it look like there are more applications and satellites than there are launch vehicles - which is the opposite of what Mr. Somnath mentioned. Where then is the issue?

Demand-driven model

The Indian space programme used to follow a supply-driven model. ISRO would build and launch satellites and then look for customers who needed the services provided by the satellites. When the Indian government reformed the space sector in 2019-2020, it changed this to a demand-driven model. Here, a satellite needs to be built and launched only if there is already demand for it. This may have led to the situation Mr. Somnath mentioned.

There is now a chicken and egg problem. The customer of the services provided by the satellite needs to be educated about the need for the service. The customer will then create a demand for a service that will need a satellite to be launched. This will provide the demand Mr. Somnath is asking for.

Consider the example of the internet. There needs to be a demand for space-based internet in a country already filled with affordable fibre and mobile-based internet services, so a company will launch a constellation of satellites into orbit to provide that service.

The question arises: Who will educate the customer, ISRO or the industry? Without such educated customers, demand of the scale ISRO expects will not be created. The customer here are not only consumers of space-based internet. There are other companies, government institutions, defence enterprises, and ordinary people including farmers, bankers, etc. So the 'amount' of education required is very great.

The other area from which demand is likely to arise is human spaceflight. This includes human-rated launch vehicles that carry humans and supplies into orbit and to destinations like an orbiting space station or the moon. There could in future be demand for space tourism as well.

Launch capability limitations
 India's launch vehicles are also not powerful enough to undertake certain missions. Like Chandrayaan 4, China used its Long March 5 launch vehicle to launch its Chang'e 4 and Chang'e 5 missions in a single launch. India's LVM-3 has less than one-third of Long March 5's capability (20% to be more precise) and will need two LVM-3 launches to launch all the components of Chandrayaan 4.

ISRO will be upgrading the LVM-3 with a semi-cryogenic engine to boost its payload capacity to six tonnes to the geostationary transfer orbit (GTO). The organisation will also need a new launch vehicle - already dubbed the Next Generation Launch Vehicle (NGLV), a.k.a. Project Soorya - to carry 10 tonnes to GTO. But it has only submitted a funding proposal thus far for this project. Other variants of this launch vehicle are expected to raise this vehicle's lift capacity.

India will also need one more successful flight of the SSLV to be confident about its ability to launch smaller satellites. Smaller satellites are usually experimental and university-built. More success in this domain will encourage space companies to build larger satellites, eventually leading to a demand for launch vehicles.

Launch vehicle economics
 All these launch vehicles will need satellites to launch. The heavier vehicles can fulfil some national goals like lunar exploration and a space station while



An LVM-3 launch vehicle lifts off from ISRO's Satish Dhawan Space Centre carrying the Chandrayaan-3 mission to orbit.

There is now a chicken and egg problem. The customer of the services provided by the satellite needs to be educated. The customer will then create a demand for a service that will need a satellite to be launched.

ISRO can use the smaller satellites for technology and capability demonstration. However, the latter will constitute only a small number of launches.

Satellites have a defined mission life. As they get old, they will need to be replaced with newer satellites. This will also create a demand for launch vehicles. However, mission operators like their satellites to live longer and have been improving their lifetimes with software and hardware upgrades. This complicates estimates of the number and frequency of launch vehicles that will be needed.

Launch vehicles are improving as well. In a single launch, the PSLV can deliver multiple satellites in multiple orbits. Rocket stages are becoming reusable, which reduces the cost of building the rocket and increases profitability. ISRO has been building its Reusable Launch Vehicle and vertical landing technologies to make reusable landing stages. It is also making an effort to replace toxic fuels for rocket engines with green alternatives.

Private sector vs government
 Mr. Somnath himself provided a solution for the problem he highlighted. He suggested we need an ecosystem that creates demand for various services, leading to a demand for data, leading to

more sources of data (like satellites), culminating in a demand for launch vehicles. The richer the ecosystem, the greater the demand.

The Indian government wants the private sector to create demand among customers and to build and launch satellites. It wants them to look for services to offer customers in India and abroad. It also wants revenue by providing launch services of its own. Finally, the government wants to upskill business, instead, they want the government to be their customer and to provide rule of law and reliable regulators.

This is because private players desire a reliable source of revenue, which the Indian government can be over a long period of time. There is talk of the government being an 'anchor customer' helping companies in their early days.

The roadmap here is for the government to exit the launch vehicle business at some point, leaving the companies with sufficient demand for launch vehicles. This is similar to the situation in the U.S., where arms of the U.S. government award contracts to SpaceX, Blue Origin, etc. to execute launches with their payloads.

Thus, the Indian government will absorb the cost of the transition from supply-driven to demand-driven building of satellites and launch vehicles. But it isn't yet educating its own Ministers and creating some of the anchor demand for satellites and launch vehicles.

(Pradeep Mohandas is a technical writer and space enthusiast in Pune.)

Key Features of LVM3:

- Height: About 43.5 meters
- Mass: Around 640 tonnes
- Payload Capacity:
 - Geosynchronous Transfer Orbit (GTO): 4 tonnes (to be increased to 5 tonnes with the new semicryogenic stage)
 - Low Earth Orbit (LEO): Around 8 tonnes
- Stages:
 1. S200 Solid Rocket Boosters: Two large solid-fuel boosters provide the initial thrust.
 2. L110 Liquid Core Stage: Uses liquid propellants (unsymmetrical dimethylhydrazine (UDMH) and nitrogen tetroxide (N2O4)).
 3. C25 Cryogenic Upper Stage: Uses liquid hydrogen (LH2) and liquid oxygen (LOX) for high-efficiency propulsion.

What is a Semicryogenic Engine?

A semicryogenic engine operates using liquid oxygen (LOX) as the oxidizer and refined kerosene (RP-1) as the fuel. Unlike fully

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cryogenic engines that use **liquid hydrogen (LH₂)**, semicryogenic engines offer a balance of efficiency, reliability, and ease of handling.

Advantages of Semicryogenic Engines:

- **Higher Thrust:** The SE2000 semicryogenic engine will provide **2,000 kN thrust**, which is higher than the existing L110 liquid stage.
- **Greater Payload Capacity:** The semicryogenic **SC120 stage** will allow LVM3 to carry up to **5 tonnes in GTO**, improving mission capabilities.
- **Cost-Effectiveness:** Kerosene is easier to store and handle than liquid hydrogen, reducing operational costs.
- **Increased Efficiency:** The higher density of kerosene allows for **greater fuel storage in a smaller volume**, leading to better performance.
- **Cleaner Propellant:** Unlike **hydrazine-based fuels (UDMH/N₂O₄)**, which are toxic and carcinogenic, RP-1 kerosene is **safer and more environmentally friendly**.

SC120 semicryogenic stage powered by the **SE2000 engine**. This replacement will:

- **Increase payload capacity** from 4 tonnes to 5 tonnes in GTO.
- **Reduce dependence on toxic propellants (UDMH/N₂O₄)**, making launches safer and more sustainable.
- **Enhance India's space launch capabilities**, making ISRO more competitive in commercial satellite launches.

The successful hot test of ISRO's semicryogenic engine marks a **technological breakthrough** that will significantly **enhance the performance of LVM3**. The introduction of the **SC120 semicryogenic stage** will improve **payload capacity, cost-efficiency, and safety**. As India prepares for **human spaceflight and deep-space missions**, this development strengthens ISRO's position as a key player in global space exploration.

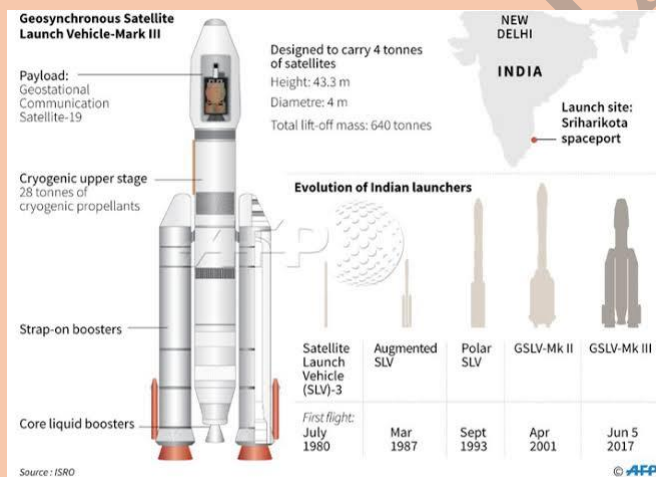
Prelims Practice Question

Q. With reference to the semicryogenic engine being developed by ISRO, consider the following statements:

1. A semicryogenic engine uses liquid oxygen (LOX) as an oxidizer and refined kerosene (RP-1) as fuel.
2. The semicryogenic engine will replace the cryogenic upper stage of the LVM3 launch vehicle.
3. The introduction of the semicryogenic stage in LVM3 will increase its payload capacity in Geosynchronous Transfer Orbit (GTO).

Which of the statements given above is/are correct?

- (A) 1 and 2 only
 (B) 1 and 3 only
 (C) 2 and 3 only
 (D) 1, 2, and 3



How Semicryogenic Engine Will Transform LVM3?

Currently, LVM3 uses L110, a liquid stage with UDMH and N₂O₄, which will be replaced by the

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Answer:

Correct Option: (B) 1 and 3 only

Explanation:

1. **Statement 1 is correct** - A semicryogenic engine uses liquid oxygen (LOX) as an oxidizer and refined kerosene (RP-1) as fuel. Unlike fully cryogenic engines that use liquid hydrogen (LH₂), semicryogenic engines offer a balance between efficiency and storage convenience.
2. **Statement 2 is incorrect** - The semicryogenic engine will replace the L110 liquid core stage of the LVM3 launch vehicle, **not** the cryogenic upper stage (C25). The cryogenic upper stage will still be used for higher efficiency in final orbital insertion.
3. **Statement 3 is correct** - The SC120 semicryogenic stage, powered by the SE2000 engine, will **increase LVM3's payload capacity in Geosynchronous Transfer Orbit (GTO) from 4 tonnes to 5 tonnes**, enhancing India's heavy-lift capabilities.

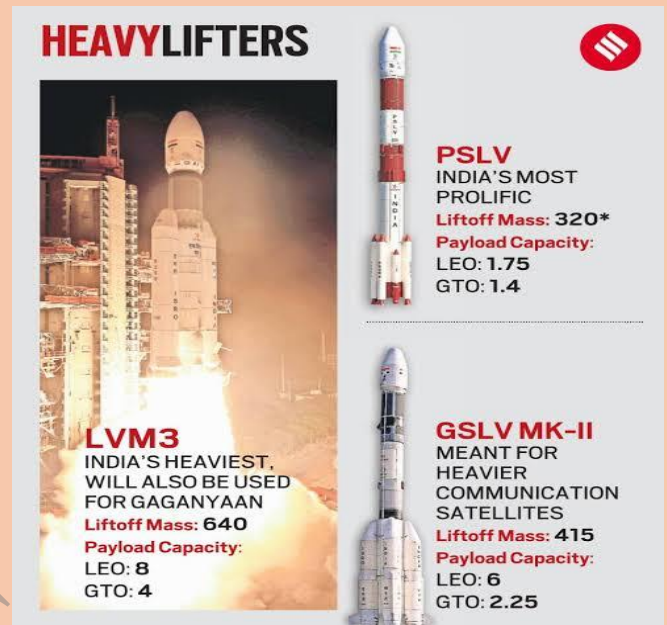
Thus, the correct answer is (B) 1 and 3 only.

Mains Model Question

Q. The development of the semicryogenic engine marks a significant advancement in India's space propulsion technology. Discuss its importance for ISRO's future missions and how it enhances the capabilities of the LVM3 launch vehicle.

The successful hot test of ISRO's semicryogenic engine represents a major breakthrough in India's space propulsion technology. This engine, which uses liquid oxygen (LOX) as an oxidizer and refined kerosene (RP-1) as fuel, is designed to replace the existing L110 liquid core stage of the LVM3 launch vehicle. This shift is expected to

significantly improve the vehicle's payload capacity, making it a more competitive option for commercial satellite launches and future space exploration missions.



The semicryogenic engine offers multiple advantages over the current liquid stage, which uses unsymmetrical dimethylhydrazine (UDMH) and nitrogen tetroxide (N₂O₄). Kerosene-based fuel is not only more cost-effective but also safer and environmentally friendly, reducing dependency on toxic propellants. Additionally, the higher density of RP-1 allows for better fuel storage efficiency, leading to enhanced thrust performance. With the integration of this engine, the LVM3's payload capacity for Geosynchronous Transfer Orbit (GTO) will increase from 4 tonnes to 5 tonnes, strengthening India's position in the global space launch market.

This technological advancement is crucial for India's upcoming space missions, including human spaceflight programs like Gaganyaan and deep-space exploration initiatives. The increased efficiency and reliability of semicryogenic propulsion will enable ISRO to undertake more ambitious missions, ensuring cost-effective and sustainable space

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exploration. Moreover, with the rising demand for satellite launches, the improved LVM3 will allow India to attract more commercial clients, boosting the country's space economy. The development of semicryogenic engines is a strategic move that not only enhances ISRO's capabilities but also reinforces India's status as a leading space-faring nation.

Topic : Why are TB patients' data shared for nutrition support?

Relevance : GS Paper 3 Science and technology

Source : The Hindu

Context :

The Pradhan Mantri TB Mukht Bharat Abhiyaan, launched in 2018, is aimed at eradicating tuberculosis (TB) in India with the help of community participation. One of its key initiatives, the Ni-kshay Mitra programme, allows volunteers, including individuals, organizations, and corporations, to provide nutritional and other support to TB patients. While the programme is well-intentioned, it raises serious ethical concerns, particularly regarding patient confidentiality and informed consent.

Concerns About Patient Data Sharing

The major issue with the Ni-kshay Mitra scheme is that receiving nutritional support is conditioned upon the patient sharing their data. Patients must give consent for their details to be shared with donors, which raises questions about the voluntariness of consent. Many TB patients, especially those from economically weaker backgrounds, may feel coerced into providing consent out of desperation for food and support.

Bioethics experts have pointed out that the consent form lacks key information, such as whether revoking consent would stop the nutritional support. Additionally, patients do not always receive a copy of the consent form, making it unclear whether they were fully informed about the implications of sharing their data. The process of obtaining consent through OTP verification on the Ni-kshay portal also complicates the situation, as many patients may not fully understand what they are agreeing to.

Why are TB patients' data shared for nutrition support?

Violation of patient confidentiality is rampant – social media platforms are awash with photographs of TB patients, including children, receiving nutrition kits

R. Prasad

The Pradhan Mantri TB Mukht Bharat Abhiyaan launched in 2018, wherein Ni-kshay Mitra can volunteer to provide nutrition support to consented TB patients, is riddled with ethical problems.

While the guidance document mentions that TB patients' consent is for receiving additional (nutritional) support, TB patients are in effect consenting for something completely different – sharing their data. Receiving additional nutritional support from Mitra is conditional to TB patients sharing their data, as the consent form clearly spells out. TB patients can revoke consent at any point of time.

While the guidance document says TB patients must be told that they are "free to enrol or not enrol in the programme, and this decision will not affect any of the existing services available to the patient" prior to taking consent, this vital information is missing in the consent form.

"The consent form for community support is basic with very little information. It is more a declaration than a consent," says Dr. Anant Bhan, a researcher in bioethics. It becomes even more problematic when obtaining consent physically is difficult as the process lies on patients sharing the OTP generated from the Ni-kshay portal with NTEP staff. In this case, patients don't even get a copy of the consent. How do we know what information is being shared with patients,"

Nutrition support should not depend on charity

Exploitation of poor TB patients' plight for additional nutrition support should stop



Trailblazer: Kerala is ahead of the curve in providing nutritional support to TB patients.

The guidance document mentions that TB patients' consent is for receiving additional nutrition support. But the consent form says it is for sharing patient data

wonders Dr. Bhan. "The consent is ethically problematic," says Dr. Anant Bhan, a researcher in bioethics and public health. "First, it gives the patients the right to revoke consent without saying that revoking consent would not lead to stoppage of nutritional support. Second, it does not assure the patients that not consenting will not lead to non-provision of [other] nutritional support. On both counts, this consent actually scares or intimidates the patients by conveying that if they want to receive additional support, they must consent to share their information. A starving TB patient will be coerced to consent to sharing of information in this process."

"If you are a TB patient and nutritionally deficient, the consent really free and voluntary," asks Dr. Bhan. Dr. Jesani shares the same view. "Consent ought to be not just informed and understood, but should also be voluntary. The consent here is coercive. Violation of voluntariness is rampant. Social media platforms are awash with photographs of TB patients, including children, receiving nutrition kits. The biggest violators are the Union Health Ministry, the Central TB Division, the TB programme, government, politicians, and organisations alike, in its unapologetic and many testimonies of individual Mitra on the Ni-kshay website have photographs of TB patients receiving nutrition kits from them. The scheme lacks standardisation and fails to ensure nutrition support to

As per the guidance document, patients are free to enrol or not enrol in the programme, and the decision will not deprive them of existing services.

As this information is missing in the consent form, the consent form has very little information.

Consent obtained based on OTP shared by patients is even more problematic.

Patients' confidentiality breaches by donors, Union Health Ministry, and the national TB programme are rampant.

The scheme fails to ensure that nutrition support to TB patients is universal and standardised.

Tamil Nadu and Kerala have simple systems in place to receive nutrition support from donors without sharing patient data.

the picture; only in exceptional cases are patients asked to meet individual donors. According to an official, such exceptions are made only when individuals insist on ensuring that kits safely reach the beneficiaries. And even in such cases, individuals are prohibited from taking photographs of the patients.

Besides ensuring confidentiality of patients is maintained while mapping them with donors, Kerala is ahead of the curve in providing nutritional support to TB patients. Every family of a TB, leprosy or cancer patient with annual income less than Rs.1,00,000 receives financial assistance of Rs.1,000 a month from the State for the entire duration of treatment.

Also, the Treatment Support Group, an informal group that came into being in 2018, provides social support, including nutrition, to TB patients as per need so as to enable treatment completion. A few Local Self Government Departments (LSGDs) in Kerala – which manage gram panchayats, block and district panchayats, municipalities, and corporations – already provide nutritional support of varying amounts to TB patients immaterial of their nutritional status.

Kerala has now gone a step further. As per a government order of March 2022, from next financial year onwards, every TB patient in the State, no matter his/her nutrition or financial status, will receive nutrition kits worth Rs.1,200 every month for as long as the treatment lasts as part of the LSGD projects.

Nutrition support should not depend on charity

Exploitation of poor TB patients' plight for additional nutrition support should stop



Trailblazer: Kerala is ahead of the curve in providing nutritional support to TB patients.

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Tamil Nadu and Kerala have simple systems in place to receive nutrition support from donors without sharing patient data

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Breach of Confidentiality

A rampant violation of patient confidentiality has been observed, with social media flooded with photographs of TB patients, including children, receiving nutrition kits. Surprisingly, even government agencies, health ministries, and politicians are among the biggest violators. Many testimonials from individual donors on the Ni-kshay website display photos of patients receiving aid, which is ethically problematic.

Alternative Approaches: Lessons from Tamil Nadu and Kerala

Some states have taken ethical approaches to ensure that TB patients receive support while maintaining their privacy.

- Tamil Nadu has a **centralized distribution system** where donors provide nutrition kits to district TB staff instead of directly interacting with patients. Only in rare cases do donors meet patients, and even then, they are strictly **prohibited from taking photographs**.
- Kerala has gone a step further in ensuring **universal nutritional support** for TB patients. The state government provides **financial assistance of ₹1,000 per month** to families of TB, leprosy, and cancer patients with an annual income of less than ₹1 lakh.
- The **Local Self Government Departments (LSGD)** in Kerala provide additional nutritional support **irrespective of a patient's economic status**. Starting from the **next financial year (2025-26)**, Kerala will provide every TB patient with **nutrition kits worth ₹1,200 per month** for the entire duration of their treatment.

Nutrition and Tuberculosis



• More than two-thirds of **trial participants were tribals**, most of whom were accessing ration from the PDS.

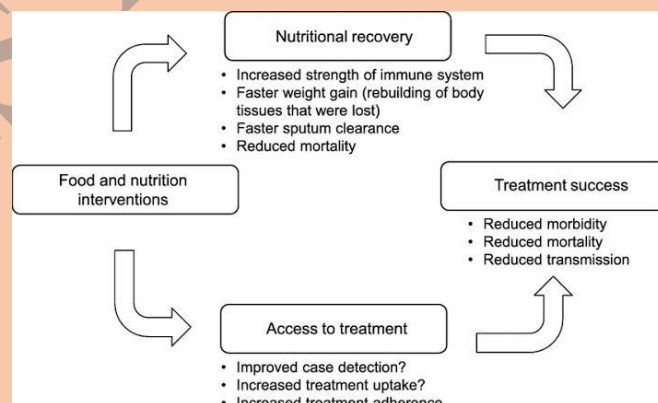
• **Undernutrition** (BMI < 18.5 kg/m²) was prevalent in four out of five patients, with severe undernutrition (BMI < 16 kg/m²) in nearly half of these.

• Prevalence of HIV, diabetes, MDR-TB was low but **alcohol and tobacco use was high**.

• Nearly one per cent of patients were **hypotensive, hypoxic**, or were unable to stand, indicating need for in-patient care.

• One of three contacts across all ages had **undernutrition** at enrolment.

• There was a **39 per cent reduction** of incidence of **all forms of TB** and a **48 per cent reduction** of incidence of **infectious TB** in the intervention group of families.



Need for an Ethical and Standardized Approach

The Ni-kshay Mitra programme suffers from **lack of standardization** and an over-reliance on charity. Given the **critical role of nutrition in TB treatment**, the government should ensure **universal state-sponsored nutritional support** rather than making it **conditional on data sharing**.

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Treatment adherence intervention	Description
Patient education	Health education and counselling.
Staff education	Education, chart or visual reminder, educational tool and desktop aid for decision-making and reminder.
Material support	Food or financial support such as meals, food baskets, food supplements, food vouchers, transport subsidies, living allowance, housing incentives or financial bonus. This support addresses indirect costs incurred by patients or their attendants in accessing health services and, possibly, tries to mitigate the consequences of income loss related to the disease.
Psychological support	Counselling sessions or peer-group support.
Tracer	Communication with the patient, including home visit or via mobile telephone communication such as SMS or telephone (voice) call.
Digital medication monitor	A digital medication monitor is a device that can measure the time between openings of the pill box. The medication monitor can give audio reminders or send an SMS to remind the patient to take medications, along with recording when the pill box is opened.

The ethical concerns surrounding this programme highlight the need for **respecting patient rights, ensuring informed consent, and protecting confidentiality**. India must learn from Tamil Nadu and Kerala's models to create a **dignified and ethical system** for TB patient support while working toward its goal of TB eradication.

Prelims Practice Question

Q. Consider the following statements regarding the Ni-kshay Mitra initiative under the Pradhan Mantri TB Mukh Bharat Abhiyaan:

1. The initiative allows volunteers to provide nutritional and other support to TB patients.
2. TB patients must mandatorily share their personal data with donors to receive nutritional support.
3. Tamil Nadu and Kerala have developed alternative models to provide nutritional support while maintaining patient confidentiality.
4. The initiative is entirely funded by the central government without any role for private donors.

Which of the statements given above are correct?

- A) 1 and 2 only
B) 1, 3, and 4 only

- C) 1 and 3 only
D) 2, 3, and 4 only

Answer:

Correct Option: C) 1 and 3 only

Explanation:

- **Statement 1 is correct:** The Ni-kshay Mitra initiative allows volunteers, including individuals and organizations, to provide nutritional and other support to TB patients.
- **Statement 2 is incorrect:** While TB patients are encouraged to share their data, **it is not mandatory by law**, though the current system makes it seem necessary, leading to ethical concerns.
- **Statement 3 is correct:** Tamil Nadu and Kerala have developed alternative systems to ensure that TB patients receive nutritional support without compromising confidentiality.
- **Statement 4 is incorrect:** The initiative is **not entirely funded by the central government**; it relies on private donors (Ni-kshay Mitras) who voluntarily support TB patients.

Mains Model Question

Q. The Ni-kshay Mitra initiative under the Pradhan Mantri TB Mukh Bharat Abhiyaan aims to provide community-driven support to TB patients. However, concerns regarding patient confidentiality and ethical issues in data sharing have emerged. Discuss the ethical challenges associated with the initiative and suggest measures to address them.

The Ni-kshay Mitra initiative was launched to encourage community participation in TB eradication by allowing individuals and organizations to provide nutritional and other support to TB patients. While the initiative addresses the crucial issue of malnutrition

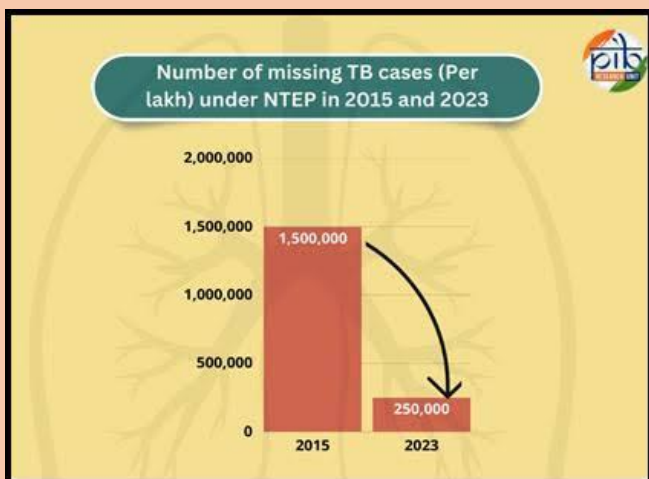
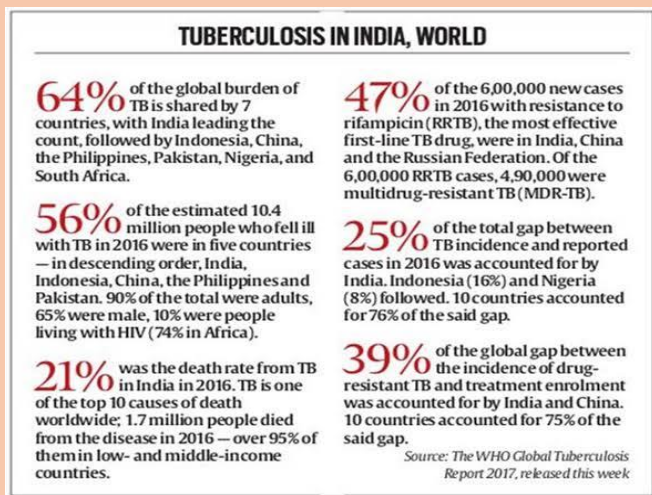
PRAGNYA BHARATHI: Detailed News Analysis (DNA)

among TB patients, it raises significant **ethical concerns**, particularly regarding **patient confidentiality and informed consent**.

images of TB patients receiving nutrition kits, often posted by donors, politicians, and even government officials. This breaches fundamental privacy rights and further stigmatizes TB patients.

States like Tamil Nadu and Kerala have demonstrated ethical alternatives by **centralizing nutritional support** without exposing patient identities. Kerala has gone further by ensuring **universal nutrition support** for all TB patients, eliminating the need for conditional consent.

To address these concerns, the **government should standardize ethical guidelines**, implement **anonymous data-sharing mechanisms**, and ensure **state-sponsored nutritional aid** rather than relying on donor-based charity. **Stronger privacy regulations and mandatory confidentiality training for stakeholders** are essential to uphold patient dignity while combating TB effectively.



One of the primary concerns is that **receiving nutritional support is linked to data sharing**, creating an implicit coercion where patients may feel forced to consent due to financial vulnerability. The consent form does not clearly mention whether revoking consent would affect their eligibility for support, making it **ethically problematic**. Additionally, the **process of obtaining consent via OTP verification** raises questions about whether patients fully understand what they are agreeing to.

Another major issue is the **violation of patient confidentiality**. Social media is flooded with