

16 JULY 2024

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## SC to look into use of Money Bills to pass laws

Chief Justice Chandrachud says appeals challenging the use of Money Bills by the Centre to pass contentious amendments in Parliament will be listed when he forms Constitution Benches; a Money Bill is restricted only to specified financial matters; Justice Chandrachud had delivered a dissenting opinion in 2021, overruled by the majority

GS Paper II:  
Parliament  
NEW DELHI

Chief Justice of India D.Y. Chandrachud on Monday agreed to list petitions challenging the Money Bill route taken by the Centre to pass contentious amendments in the Parliament.

"I will list when I form Constitution Benches," the Chief Justice addressed senior advocate Kapil Sibal, who made an oral mentioning on behalf of the petitioners, including Rajya Sabha MP Jairam Ramesh.

The Money Bill question was referred to a seven-judge Bench in November 2019 by a five-judge Bench headed by Chief Justice

Ranjan Gogoi in the case of *Rojer Mathew vs. South Indian Bank Ltd.* The cardinal issue is whether such amendments could be passed as a Money Bill, circumventing the Rajya Sabha, in violation of Article 110 of the Constitution.

### The provisions

A Money Bill is deemed to contain only provisions dealing with all or any of the matters under clauses (a) to (g) of Article 110(1), largely including the appropriation of money from the Consolidated Fund of India and taxation.

In other words, a Money Bill is restricted only to the specified financial matters.

The reference includes

### The contentious route

Some of the legislations passed as Money Bills in the Parliament include:

- Amendments to the Prevention of Money Laundering Act
- The Finance Act of 2017
- Aadhaar Act, 2016



A Money Bill is a financial legislation that contains provisions exclusively related to revenue, taxation, government expenditures, and borrowing

legal questions concerning amendments made from 2015 onwards in the Prevention of Money Laundering Act (PMLA) through Money Bills, giving the Enforcement Directorate almost blanket powers of arrest, raids, etc. Though the

court had upheld the legality of the PMLA amendments, it left the question whether the amendments could have been passed as Money Bills to the seven-judge Bench.

Similarly, the case also raises questions about the

### Cong. welcomes court's decision

NEW DELHI

The Congress on Monday welcomed the Supreme Court agreeing to consider a submission for setting up a Constitution Bench to hear pleas challenging the validity of passage of laws as Money Bills. » PAGE 5

passage of the Finance Act of 2017 as a Money Bill to alter the appointments to 19 key judicial tribunals.

Mr. Ramesh, a petitioner in this case, had argued that the 2017 Act was deliberately categorised as a Money Bill to "extend exec-

utive control over these institutions (tribunals) by altering the composition of the selection committees and vastly downgrading the qualifications and experience required to staff these bodies".

The question of passage of laws after dressing them up as Money Bills had come up in the Aadhaar case too. However, the top court had, in a majority verdict in 2021, refused to review its 2018 judgment (K. Puttaswamy case) upholding the validity of the Aadhaar Act and its certification as a Money Bill.

Justice Chandrachud (as he was then) had delivered a dissenting opinion on the

Review Bench in 2021. The two questions before the Review Bench had been whether the Lok Sabha Speaker's decision to declare the proposed Aadhaar law as a Money Bill was "final". The second, whether the Aadhaar (Targeted Delivery of Financial and Other Subsidies, Benefits and Services) Act, 2016 was correctly certified as a 'Money Bill' under Article 110(1) of the Constitution.

Justice Chandrachud, in his dissent, had said the Review Bench ought to wait till the seven-judge Bench decided the larger questions on the Money Bill in the *Rojer Mathew* reference. But the majority had disagreed with him.

## SC to look into use of Money Bills to pass laws (16 July)

Chief Justice Chandrachud says appeals challenging the use of Money Bills by the Centre to pass contentious amendments in Parliament will be listed when he forms Constitution Benches; a Money Bill is restricted only to specified financial matters; Justice Chandrachud had delivered a dissenting opinion in 2021, overruled by the majority

- Chief Justice of India D.Y. Chandrachud agreed to list petitions challenging the use of the Money Bill route by the Centre for passing amendments in Parliament.
- Senior advocate Kapil Sibal, representing the petitioners including Rajya Sabha MP Jairam Ramesh, raised the issue.
- The issue was referred to a seven-judge Bench in November 2019 by a five-judge Bench led by Chief Justice Ranjan Gogoi in the *Rojer Mathew vs. South Indian Bank Ltd.* case.
- The key question is whether amendments could be passed as a Money Bill, bypassing the Rajya Sabha, violating Article 110 of the Constitution.
- A Money Bill should only contain provisions related to financial matters specified in Article 110(1) (clauses (a) to (g)).
- The reference includes legal questions on amendments made from 2015 onwards in the Prevention of Money Laundering Act (PMLA) through Money Bills, granting extensive powers to the Enforcement Directorate.
- The court upheld the legality of PMLA amendments but left the question of their passage as Money Bills to the seven-judge Bench.

- The Finance Act of 2017's passage as a Money Bill altered appointments to 19 key judicial tribunals, which petitioner Mr. Ramesh argued was to extend executive control.
- The issue of laws being passed as Money Bills came up in the Aadhaar case; the Supreme Court in a 2021 majority verdict refused to review its 2018 judgment upholding the Aadhaar Act's certification as a Money Bill.
- Justice Chandrachud dissented in the 2021 review, stating that the Review Bench should wait for the seven-judge Bench's decision on the larger Money Bill questions in the Rojer Mathew reference, but the majority disagreed with him.

### Jagannath Temple Puri

- As per temple records, King Indradyumna of Avanti built the main temple of Jagannath at Puri.
- The present temple was rebuilt from the tenth century onwards on the site of pre-existing temples in the compound, but not the main Jagannath temple.
- The rebuilding was begun by Anantavarman Chodaganga, the first king of the Eastern Ganga dynasty.
- Many of the temple rituals are based on Oddiyana Tantras and Shabari Tantras, evolved from Tantric Buddhism and tribal beliefs respectively.
- Local legends link the idols with aboriginal tribes, and the daitapatis (servitors) claim to be descendants of the aboriginals.
- The temple is one of the 108 Abhimana Kshethram of the Vaishnavite tradition.
- The temple is famous for its annual Ratha Yatra, or chariot festival, where the three principal deities are pulled on huge and elaborately decorated raths (temple cars).
- The worship is performed by the Bhil Sabar tribal priests, as well as priests from other communities.
- Unlike the stone and metal icons in most Hindu temples, the image of Jagannath is made of wood and is ceremoniously replaced every 12 or 19 years by an exact replica.
- The temple was rebuilt by Anantavarman Chodaganga, King of the Eastern Ganga dynasty, in the 10th century CE.
- This is described by the Kendupatna copper-plate inscription of his descendant, Narasimhadeva II, and Rajendra Chola from the mother side.
- Anantavarman was originally a Shaivite and became a Vaishnavite after conquering the Utkala region in 1112 CE.
- A 1134–1135 CE inscription records his donation to the temple, indicating the temple construction must have started after 1112 CE.



Devotees pull a chariot of the Shree Jagannath Temple on the last day of the nine-day Rath Yatra festival at Puri in Odisha. BISWARANJAN ROUT

### The Ratha Yatra of Puri

- The Ratha Yatra of Puri, also known as Ratha Jatra, is the oldest and largest Hindu chariot festival.
- It is celebrated annually during the bright half of the lunar month of Ashadh (June–July).
- The festival is held in Puri, Odisha, India, and is associated with the deity Jagannath (a form of Vishnu or Krishna).
- During the festival, three deities (Jagannath, his brother Balabhadra, and sister Subhadra) are pulled by devotees in three massive wooden chariots.
- The chariots travel on the Grand Avenue (Bada Danda) to the Gundicha Temple, where the deities stay for a week before returning to the Jagannath Temple.
- The return journey is called Bahuda Yatra.
- On the way, the chariot of Jagannath, Nandighosa, pauses near the crematorium of Bhakta Salabega, a Muslim devotee, to pay tribute.
- On the return trip, the deities stop near the Mausi Maa Temple (Aunt's abode) and are offered Poda Pitha, a special type of pancake.
- After a seven-day stay, the deities return to their temple.

Chariot Details	Jagannath	Balabhadra	Subhadra [hide]
Name of Chariot	Nandighosha (ନନ୍ଦିଘୋଷ)	Taladhwaja (ତାଳଧ୍ଵଜ)	Darpadalana (ଦର୍ପଦଳନ)
Alternates name of Chariot	Garudadhwaja, Kapidhwaja	Langaladhwaja	Devadalana, Padmadhwaja
Image			
Number of wheels	16	14	12



The steam boiled dough is cut into small pieces. The sliced pieces are fried in pure ghee to prepare Podapitha.

#### History:

- Descriptions of the Ratha Yatra can be found in Brahma Purana, Padma Purana, Skanda Purana, and Kapila Samhita.
- European travelers have recorded the festival since the 13th century, with detailed descriptions from the 17th century.

#### The Chariots:

- The three chariots of Jagannath, Balabhadra, and Subhadra are newly constructed each year with specific types of wood.
- The wood is traditionally sourced from the ex-princely state of Dasapalla and transported via the river Mahanadi.
- The chariots are decorated according to traditional designs and are placed on the Grand Avenue in front of the temple's eastern entrance, known as the Lion's Gate (Sinhadwara).
- Each chariot has nine painted wooden images (Parsva devatas) representing different deities, a charioteer (Sarathi), and four horses.

# 'India and Russia have doubled rupee-rouble payments in 2024'

According to figures shared by Russia's state-controlled Sberbank, the number of transactions has also increased; despite Western sanctions, businessmen push for Indian manufacturers to look towards Moscow and counter China's inroads

GS Paper II:  
International  
Relations

India and Russia have doubled their payments in national currencies (rupee-rouble) since last year despite sanctions by the U.S. and European Union, says Russia's state-controlled and largest bank, Sberbank, that handles a majority of payments for Indian exports to Russia. Rupee deposits by Indian corporates have also increased multi-fold in 2024.

According to figures shared by Sberbank, in January-June 2024, the volume of payments processed doubled from the January-June 2023 amount, and the number of transactions Sberbank handled increased by 80% in the first half of 2024.

While Sberbank has operated branches in India since 2010, sanctions were imposed by the U.S. in the immediate aftermath of Russia's invasion of Ukraine in February 2022, and then by the European

Union in July 2022.

The surge may rise further after Prime Minister Narendra Modi's visit to Moscow last week, economists and Indian businessmen working in Russia hope, warning that in the absence of the Indian rupee, Chinese businesses and the yuan would continue to benefit from the "vacuum" created by the exit of Western companies.

"We are witnessing an increase in trust towards the rupee from our clients. Today, not only have rupee-denominated current accounts become a reality, but also rupee deposits, which businesses are showing great interest in. Since the beginning of the year, the volume of corporate deposits in rupees has increased sixfold," a Sberbank spokesperson told *The Hindu* in response to queries about potential growth areas, adding that the rupee is now "easily convertible" in Russia, and that Sberbank hopes to serve as a "Sherpa" for more businesses given the



**Boost to trade:** Sberbank says it is witnessing an increase in trust towards the Indian rupee from its clients. REUTERS

**\$100 billion trade target by 2030 set by Mr. Modi and Russian President Vladimir Putin during talks.**

"Prime Minister Modi's journey to Moscow was very important because it was the first visit at a time when economic cooperation between the two countries has come to a qualitatively new level," said Lydia Kulik, Head of India Studies at the SKOLKOVO Institute for Emerging Market Studies, at Moscow School of Management. "Secure payment mechanisms, insu-

rance and logistics are among the most important areas to focus on," she added, listing auto and aviation components, chemicals, microelectronics, consumer electronics, machinery, medical devices and agricultural products as sectors in which Indian companies should consider exporting to Russia.

According to a growing number of Indian businessmen now based in Russia, the government must move quickly as China has taken more advantage of the sanctions to fill

the space vacated by nearly all Western brands, and already has bilateral trade of \$240 billion, which is more evenly balanced. At present, even Indian companies are being forced to consider payments in the Chinese yuan, they say.

"I think sanctions have created new opportunities, and China has gained a lot compared to India. Of course, the Indian government has been very positive about [trade with Russia], but somehow it has not been achieved on the same scale as China," explained Sukrit Sharan, a St. Petersburg-based board member of a joint venture between International Institute for Advanced Aerospace Technologies (IIAAT) and Indian firm Millennium Aerodynamics that produces "hybrid aeroboats". "Indian businesses should come and venture into the market, they should fill up the Russian market with Indian products for which there is a vacuum in the region," he said.

## 'India and Russia have doubled rupee-rouble payments in 2024' (16 July)

According to figures shared by Russia's state-controlled Sberbank, the number of transactions has also increased; despite Western sanctions, businessmen push for Indian manufacturers to look towards Moscow and counter China's inroads

- India and Russia have doubled their payments in national currencies (rupee-rouble) since last year despite U.S. and EU sanctions.
- Sberbank, Russia's largest bank, handles most payments for Indian exports to Russia.
- Rupee deposits by Indian corporates have increased significantly in 2024.
- From January to June 2024, the volume of payments processed by Sberbank doubled compared to the same period in 2023.
- The number of transactions increased by 80% in the first half of 2024.
- Sberbank has operated in India since 2010 and faced U.S. and EU sanctions post-Russia's invasion of Ukraine in 2022.
- The increase in rupee transactions may rise further after Prime Minister Narendra Modi's recent visit to Moscow.
- Economists and Indian businessmen in Russia warn that without the Indian rupee, Chinese businesses and the yuan will benefit from the absence of Western companies.
- Sberbank reports increased trust in the rupee among clients, with rupee-denominated accounts and deposits growing sixfold since the beginning of the year.
- The rupee is now easily convertible in Russia.
- Sberbank aims to support more businesses, targeting \$100 billion in trade by 2030, as set by Modi and Russian President Vladimir Putin.

- Prime Minister Modi's visit to Moscow was significant for enhancing economic cooperation between India and Russia.
- Lydia Kulik from SKOLKOVO Institute highlighted the need for secure payment mechanisms, insurance, and logistics.
- Key sectors for Indian exports to Russia: auto and aviation components, chemicals, microelectronics, consumer electronics, machinery, medical devices, and agricultural products.
- Indian businessmen in Russia urge quick action as China has taken advantage of Western sanctions, with \$240 billion in bilateral trade.
- Currently, some Indian companies consider payments in Chinese yuan.
- Sanctions have created new opportunities, with China benefiting more than India.
- Sukrit Sharan, from a joint venture producing "hybrid aeroboats," emphasized the need for Indian businesses to enter and fill the Russian market.

# T.N. govt. to hold all-party meet on Cauvery dispute

GS Paper I:  
Geography

CHENNAI

Tamil Nadu Chief Minister M.K. Stalin on Monday condemned the Karnataka government for not releasing water in the Cauvery, due to the State of Tamil Nadu. He has also called for an all-party (legislative) meeting at the Secretariat in Chennai on July 16, to decide on future course of action.

The Tamil Nadu government has also written to **Cauvery Water Management Authority (CWMA)** urging it to implement the directive of the **Cauvery Water Regulatory Committee (CWRC)** to Karnataka to release 1 tmcft of water in the Cauvery to Tamil Nadu, Mr. Stalin said. He further contended that such an action of Karnataka amounted to "contempt" of the direction of the Supreme Court.

## 'Condemnable act'

"Karnataka refusing to release Tamil Nadu's share of water is strongly condemnable. The Tamil Nadu government, under no circumstances, would accept such action affecting the welfare of farmers from the State," Mr. Stalin said in a statement. He was react-



**Farmers in trouble:** Reports say Biligundlu recorded a flow of only around 4,000 cusecs at 4 p.m. on Monday. FILE PHOTO

ing to Karnataka's stand that it would not release water due to Tamil Nadu, despite a direction by the CWRC.

Tamil Nadu Minister for Water Resources Duraimurugan would chair the all-party (those represented in the TN legislature) meeting on the Secretariat campus in Chennai at 11 a.m. on July 16 to discuss the future course of action, Mr. Stalin said. The meeting would also get inputs from legal experts on the issue.

As on July 15, the total water storage in four major reservoirs of Karnataka stood at 75.586 tmc, Mr. Stalin pointed out and further cited reports of the India Meteorological Department that predicted seasonal rains. "The water storage in Mettur dam is merely 13.808 tmc. In this

situation, Karnataka refusing to release water as per the directions of the CWRC is an act against the farmers of Tamil Nadu," he said.

According to information reaching Chennai, Biligundlu, even at 4 p.m., recorded only around 4,000 cubic feet per second. As it is expected to take two to two-and-a-half days for water released from Kabini or Krishnaraja Sagara to get realised at the inter-State border point, officials say that there may be an improvement in the flow in the coming days.

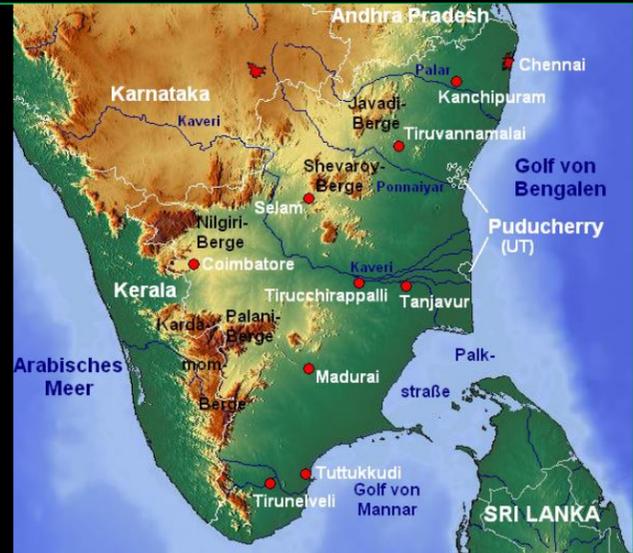
As on July 11, Tamil Nadu realised about 2.6 thousand million cubic feet (tmc ft) this month. Since June 1, the total realisation was around 4.9 tmc ft.

## Kaveri River Water Dispute

The Kaveri River water dispute is a long-standing conflict between the Indian states of Karnataka and Tamil Nadu, along with Kerala and Puducherry, over the sharing of the waters of the Kaveri River. The river, which originates in Karnataka and flows through Tamil Nadu, has been the subject of contention due to the varying needs and demands of these states for irrigation and drinking water.

The key events and aspects of the dispute:

- Origins and Early Disputes:** The conflict dates back to agreements made during the British colonial period in 1892 and 1924, which allocated water between the states. These agreements were perceived as unfair by Karnataka after its reorganization in 1956.
- Post-Independence Developments:** After independence, disputes arose with Karnataka arguing for a larger share of water to support its agricultural expansion. Tamil Nadu, with established agriculture relying heavily on the Kaveri, resisted changes to the existing allocations.
- Tribunal and Interim Orders:** In 1990, the Government of India constituted the Cauvery Water Disputes Tribunal to adjudicate the dispute. The tribunal issued an interim order in 1991 mandating Karnataka to release a specific quantity of water to Tamil Nadu, leading to significant protests in Karnataka.
- Final Award:** The tribunal's final award came in 2007, which allocated specific shares of water to each state. Karnataka and Tamil Nadu both filed review petitions, leading to further legal battles.
- Supreme Court Intervention:** The Supreme Court of India delivered a verdict in 2018, slightly modifying the tribunal's award and increasing Karnataka's share while reducing Tamil Nadu's share. The court also directed the central government to form the Cauvery Water Management Authority to implement the tribunal's award.
- Current Status:** The management authority oversees the distribution of water, but tensions persist, especially during years of low rainfall. Both states continue to engage in legal and political maneuvers to secure their respective interests.



## Contempt of Court in India

### Constitutional Provisions

- Article 19(2):** When the Indian Constitution was adopted, it included contempt of court as one of the restrictions on the freedom of speech and expression.
- Article 129:** Empowers the Supreme Court to punish contempt of itself.
- Article 215:** Grants similar powers to the High Courts.

### Statutory Backing

- The Contempt of Courts Act, 1971:** Provides statutory backing to the concept of contempt of court in India.

### Types of Contempt of Court

- Civil Contempt:**
  - Wilful disobedience to any judgment, decree, direction, order, writ, or other process of a court, or wilful breach of an undertaking given to a court.
- Criminal Contempt:**
  - Publication of any matter or the doing of any act which:
    - Scandalises or lowers the authority of any court.
    - Interferes with the due course of any judicial proceeding.
    - Obstructs the administration of justice in any other manner.

### Exceptions

- Fair and accurate reporting of judicial proceedings does not constitute contempt of court.
- Fair criticism on the merits of a judicial order after a case is heard and disposed of is also not considered contempt.

### Punishment

- The Contempt of Courts Act, 1971:** Provides for punishment which may include:
  - Imprisonment for up to six months.
  - Fine up to Rs 2,000.
  - Or both.

### Amendment in 2006

- Introduced "truth and good faith" as a defense.
- Specified that the court may impose punishments only if the act of the person substantially interferes, or tends to interfere with the due course of justice.

## Examples:

### Civil Contempt

- Maharashtra Political Crisis (2022):** During the political crisis in Maharashtra, the Supreme Court issued a notice for contempt to the Maharashtra Speaker for not adhering to the court's directive regarding the disqualification proceedings of MLAs, demonstrating an instance of civil contempt through wilful disobedience.

### Criminal Contempt

- Justice Karnan Case (2017):** Justice C.S. Karnan of the Calcutta High Court was sentenced to six months imprisonment by the Supreme Court for making derogatory remarks against judges and the judiciary. His actions were deemed to scandalize the court and obstruct the administration of justice.

# Two stealth frigates being built in Russia set to be delivered soon

GS Paper III:  
Internal Security

NEW DELHI

After a series of delays, two stealth frigates under construction in Russia for the Indian Navy are set to be delivered from September. Construction and deliveries were delayed due to COVID-19, the war in Ukraine and Western sanctions.

“First ship *Tushil* is ready for acceptance by the Indian Navy and is scheduled to be delivered by September. The commissioning crew reached Russia earlier this month,” a defence official in the know said. “The second ship *Tamal* is expected to be delivered by February 2025.”

## Agreement for frigates

In October 2016, India and Russia signed an inter-governmental agreement for the four stealth frigates, two directly imported and



**Naval advances:** The basic structures of two frigates in Russia were lying at the Yantar shipyard in Russia. PIB

two to be manufactured by Goa Shipyard Ltd. (GSL).

A \$1-billion deal was subsequently signed for

the two frigates under direct purchase. In November 2018, the GSL signed a \$500-million deal with Ro-

soboronexport of Russia for material, design and specialist assistance to locally manufacture the two frigates, and in January 2019, the contract was signed between the Indian Defence Ministry and the GSL. All the ships are powered by engines from Zorya-Mashproekt of Ukraine.

## Schedule to be followed

As per schedule, the GSL is scheduled to deliver the first ship in 2026 and the second one six months later. “Construction at GSL is progressing and the launch of the first ship would take place in the next couple of months,” a defence source said. The basic structures of two frigates in Russia were lying at the Yantar shipyard in Russia which are now being finished. The Indian Navy already operates six of these frigates weighing around 4,000 tonnes each.

## Two stealth frigates being built in Russia set to be delivered soon (16 July)

- Two stealth frigates for the Indian Navy, named *Tushil* and *Tamal*, are set to be delivered soon from Russia.
- Delays in construction and delivery were caused by COVID-19, the war in Ukraine, and Western sanctions.
- *Tushil* is ready for acceptance and scheduled for delivery by September, with the commissioning crew already in Russia.
- The second frigate, *Tamal*, is expected to be delivered by February 2025.
- India and Russia signed agreements in 2016 for four stealth frigates, with two imported directly and two to be built by Goa Shipyard Ltd. (GSL).
- A \$1-billion deal was signed for the two frigates directly imported from Russia.
- GSL signed a \$500-million deal with Rosoboronexport for material, design, and specialist assistance to locally manufacture the other two frigates.
- All frigates are powered by engines from Zorya-Mashproekt of Ukraine.
- GSL is scheduled to deliver the first locally manufactured frigate in 2026 and the second six months later.
- Construction progress at GSL is ongoing, with the launch of the first ship expected in the next few months.
- The Indian Navy currently operates six similar frigates, each weighing around 4,000 tonnes.

### Stealth Frigate

- A stealth frigate is a type of naval warship equipped with advanced stealth technology to minimize its detectability by enemy radar and other detection systems.
- This stealth technology allows the frigate to operate with a reduced chance of being detected, tracked, targeted, and engaged by adversaries.

### Key Features:

1. **Radar Cross-Section Reduction:**

- The hull and superstructure are designed to deflect and absorb radar waves, significantly reducing the ship's radar cross-section.
  - This minimizes radar signal reflections, making the vessel less visible on enemy radar screens.
2. **Reduced Emission and Signature Management:**
    - Equipped with technologies to manage electromagnetic emissions (e.g., radar, radio, communication systems).
    - Emissions are carefully controlled to reduce detectability by enemy sensors.
  3. **Low Infrared and Thermal Signatures:**
    - Design and materials reduce the ship's infrared and thermal signatures, making it less visible to infrared and heat-seeking sensors.
  4. **Acoustic Signature Reduction:**
    - Utilizes sound-absorbing materials and techniques to minimize noise from machinery and propulsion systems.
    - Reduces detectability by enemy sonar systems underwater.

**Uses:**

- **Anti-Submarine Warfare**
- **Anti-Air Warfare**
- **Maritime Patrol**
- **Surveillance**
- **Escort Missions**

Stealth features enhance the frigate's survivability and effectiveness in modern naval warfare by reducing detection and engagement ranges.

**Project 17A**

- Project 17 Alpha (P-17A) is an initiative by the Indian Navy to construct a series of stealth guided-missile frigates with enhanced stealth features, advanced weapons, sensors, and platform management systems.

**1. Origins and Purpose:**

- Launched by the Indian Navy in 2019 as a follow-on to the Project 17 (Shivalik Class) Frigates.
- Aimed at building a series of advanced stealth frigates for the Indian Navy.

**2. Construction:**

- Frigates are being constructed by Mazagon Dock Shipbuilders (MDL) and Garden Reach Shipbuilders & Engineers (GRSE).
- Four ships are under construction by MDL and three by GRSE.

**3. Timeline:**

- The first five ships were launched between 2019-2022.
- The first ship, **INS Nilgiri**, was launched in 2019.
- The second ship, **INS Udaygiri**, was launched in May 2022.

**4. Design and Indigenous Involvement:**

- Designed in-house by the Indian Navy's Warship Design Bureau (WDB).
- Approximately 75% of the orders for equipment and systems are from indigenous firms, including Micro, Small, and Medium Enterprises (MSMEs), in alignment with India's Aatma Nirbhar Bharat (self-reliant India) initiative.

## Vikram Misri takes over as India's 35th Foreign Secretary

PCS Special

NEW DELHI

Vikram Misri, a 1989-batch officer of the Indian Foreign Service, took charge as the 35th Foreign Secretary on Monday.

Mr. Misri, who served as a Deputy National Security Adviser before the current assignment, served in China during the 2020 Galwan conflict and is also known to have extensive contacts in conflict-torn Myanmar where he served as India's Ambassador from 2016 to 2018. He has taken over from Vinay Mohan Kwatra.

The 1964-born diplomat has served in multiple Indian missions in locations such as Brussels, Tunis, Islamabad, Washington DC, Munich and the Sri Lankan capital Colombo where he was Deputy High Commissioner of India. He served as Indian envoy to Spain in 2014.



Vikram Misri

In the current circumstances, Mr. Misri will be expected to provide policy directives to the Government of India in dealing with the dynamics generated by the Israel-Palestine crisis, the continuing war in Ukraine and the upcoming U.S. election.

"Congratulate Foreign Secretary Vikram Misri as he assumes his new responsibility today. Wish him a productive and successful tenure," External Affairs Minister S. Jaishankar said in a social media post.

# Existing structure at M.P.'s Bhojshala complex was built using remains of temple: ASI

GS Paper I: History

**Ishita Mishra**  
**Mehul Malpani**  
NEW DELHI

The existing structure at the Bhojshala complex in Dhar district of Madhya Pradesh was constructed using the remains of a temple that existed earlier at the site, said the Archaeological Survey of India (ASI) in its scientific survey report, which was submitted to the Indore Bench of the Madhya Pradesh High Court on Monday.

The court had in March asked the ASI to undertake a scientific survey of the Bhojshala Temple-Kamal Maula Mosque complex.

The ASI said that based on the survey, conducted over a period of three months using technologies such as ground-penetrating



Security personnel stand guard outside the Bhojshala Temple-Kamal Maula Mosque.

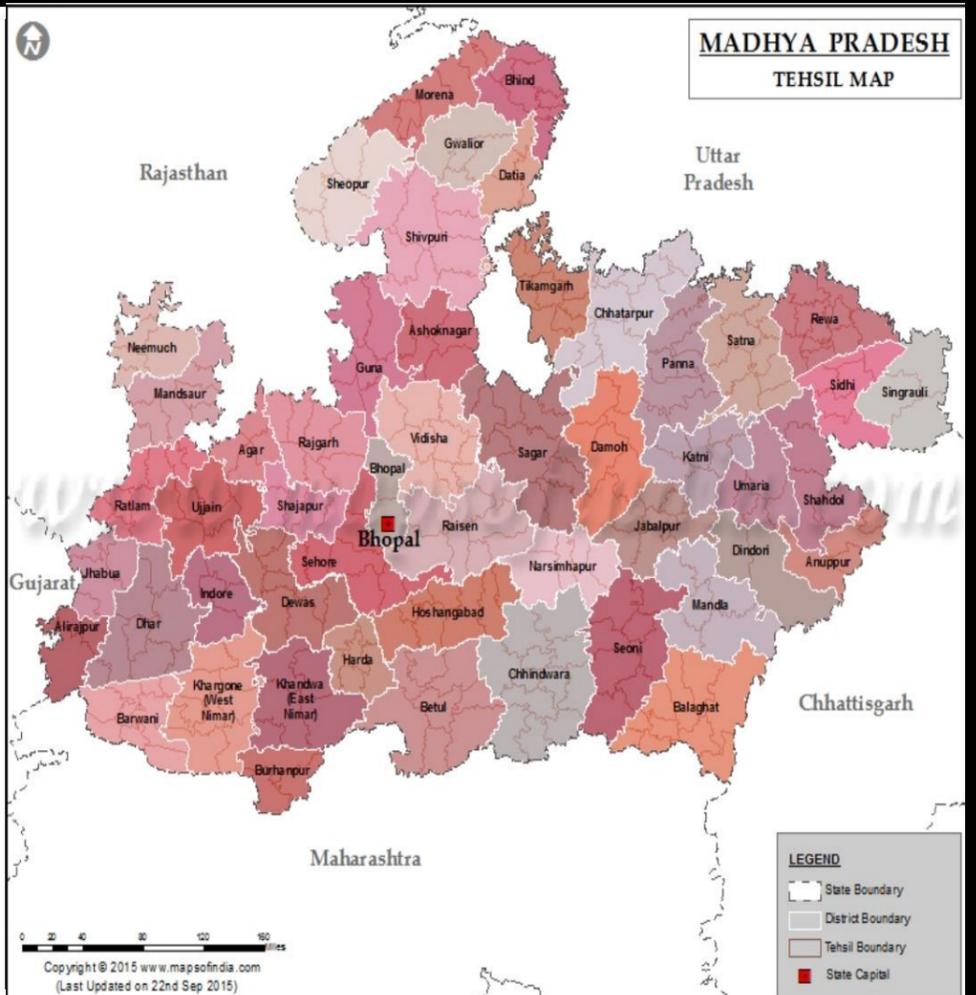
ing radar and from archaeological remains studied during the investigation, the pre-existing structure “can be dated to the Paramara [dynasty] period”.

“Art and architecture of the pillars and pilasters in colonnades suggest that they were originally part of a temple. For their reuse in the existing structure, fi-

gures of deities and humans carved on them were mutilated,” the ASI report, a copy of which is with *The Hindu*, stated.

The survey found images of Hindu deities such as Ganesha, Brahma with his consorts, Narasimha, Bhairava and other human and animal figures in the existing structure. “As human and animal figures are not permitted in mosque, at many places, such images have been chiselled out or defaced...,” the ASI said.

The ASI report also said that inscriptions in Sanskrit and Prakrit were found at the site. The report quoted an inscription on the gateway to the tomb of Abdullah Shah Chungal at Dhar which had said that the temple “was violently converted” into a mosque.



## Existing structure at M.P.'s Bhojshala complex was built using remains of temple: ASI (16 July)

- The Archaeological Survey of India (ASI) conducted a scientific survey of the Bhojshala Temple-Kamal Maula Mosque complex in Dhar district, Madhya Pradesh.
- The existing structure at Bhojshala was built using remains from an earlier temple that existed at the site.
- ASI's survey, using technologies like ground-penetrating radar, dated the pre-existing structure to the Paramara dynasty period.
- Art and architectural elements, such as pillars and pilasters with figures of deities and humans, suggest they originally belonged to a temple and were later reused.
- The survey discovered images of Hindu deities like Ganesha, Brahma, Narasimha, and others within the existing structure, some of which were defaced as human and animal figures are not allowed in mosques.
- Sanskrit and Prakrit inscriptions were found at the site, one of which indicated that the temple was forcefully converted into a mosque, according to an inscription at the tomb of Abdullah Shah Chungal in Dhar.

### Bhojshala Complex

- Dhar, located in central India, was a medieval circular city and a capital of Malwa, initially under the Paramara dynasty from the 10th century.
- It later became the Maratha capital of the Powars in the 18th century.

### Cultural and Economic Center:

- Dhar was renowned as a center of education, manuscript compilation, and cattle trading.
- It was also noted for metallurgical activities, suggested by its name Dhārānagara (city of swords) and the presence of the Dhar iron pillar.

### Political Turbulence and Islamic Influence:

- Dhar witnessed conflicts involving the Yadavas, Solankis, and Paramaras, resulting in multiple sackings and burnings.
- Malwa eventually came under the Delhi Sultanate in the early 14th century.

### Kamal Maula Mosque:

- Constructed before 1331 CE, originally associated with Kamal-al-Din, a Chishti Sufi saint.
- Islamic inscription from 1392 mentions repairs by Dilāwar Khān, indicating ongoing use and maintenance under different rulers.

### Architectural Features:

- The mosque features sandstone pillars from the 11th and 12th centuries, stacked to increase ceiling height.
- Trabeate domes added later, decorated with intricate designs resembling those at Ajmer and the Qutb complex in Delhi.

- Contains stone panels with Sanskrit and Prakrit inscriptions, possibly assembled as a medieval display similar to a museum.

#### Cultural Significance:

- Referred to historically as Bhoj Shala or Raja Bhoja school, indicating its association with learning and scholarly activities.
- No Sarasvatī statue found, but a Jain statue of Ambikā was discovered, originally mistaken for Sarasvatī.

#### Legal and Contemporary Context:

- Recent legal proceedings in 2024 aimed to clarify the nature of the complex, reflecting ongoing debates about its historical and religious significance.
- The Diwan of Dhar State declared it a mosque in 1935, but the recent court case seeks to demystify its character further.

### The Paramara Dynasty

- The Paramara dynasty ruled the Kingdom of Malwa in west-central India from the 9th to the 14th centuries.
- They belonged to the Parmara clan of the Rajputs.

#### Establishment and Early Rule:

- Established in the 9th or 10th century, initially as vassals of the Rashtrakutas of Manyakheta.
- Earliest extant inscriptions by ruler Siyaka found in Gujarat.

#### Ascendancy to Sovereignty:

- Around **972 CE**, **Siyaka sacked Manyakheta**, asserting Paramara sovereignty.
- Malwa, centered on **Dhara (now Dhar)**, became core Paramara territory under Munja.

#### Zenith under Bhoja:

- Bhoja, Munja's nephew, expanded empire from Chittor to Konkan and Sabarmati to Vidisha by c. 1055 CE.

#### Political and Military Struggles:

- Faced challenges from Chaulukyas of Gujarat, Chalukyas of Kalyani, Kalachuris of Tripuri, and Chandelas of Jejakabhukti.
- Capital moved to Mandapa-Durga (Mandu) due to repeated sackings of Dhara.

#### Decline and End:

- Last known ruler Mahalakadeva defeated and killed by Alauddin Khalji's forces in 1305 CE.
- Epigraphic evidence suggests Paramara rule continued briefly after Mahalakadeva's death.

#### Cultural and Religious Patronage:

- Paramaras renowned for patronage of Sanskrit poets and scholars, particularly under Bhoja.
- Predominantly Shaivite rulers who also patronized Jain scholars.



# ICAR to release 323 new varieties of 56 crops today

Council to launch 'one scientist, one product' programme for its 5,500 scientists to come up with a product, technology, model or publication every year; plan afoot for 100 seed varieties in 100 days

GS Paper III:  
Agriculture  
NEW DELHI

The Indian Council of Agricultural Research (ICAR) will launch its "one scientist, one product" programme on Tuesday to improve research in the field of agriculture and animal husbandry.

The council will formally announce the release of 323 varieties of 56 crops, including cereals, oilseeds, forage crops, and sugar cane, at a function here on Tuesday as part of its 96<sup>th</sup> foundation day.

These crops include 289 climate-resilient varieties and 27 bio-fortified varieties.

The "one scientist, one product" programme will be inaugurated by Union Agriculture Minister Shivraj Singh Chouhan.

#### Five-year plan

Explaining the programme, ICAR Director-General Himanshu Pathak told presspersons here on Monday that the ICAR had given a target to all 5,521 scientists under the institution to come up with a product, technology, model, concept or good publica-



**Expanding fruit bowl:** A glimpse of the exhibition of the technologies and products developed by ICAR, on the sidelines of its 96th Foundation Day and Technology Day in New Delhi on Monday. ANI

tion. At the beginning of every year, the scientist or a group of scientists will have to identify the product, and the ICAR will map the work. "We will monitor it at the institute level every three months and at the headquarters level every six months. This is a long plan," he said. The scheme will work for five years.

"This year, we are prioritising seed hubs for high-yielding oilseeds and pulses varieties," he said.

Dr. Pathak said the ICAR was also working to deve-

lop 100 new seed varieties and 100 farm technologies in 100 days as part of the Centre's 100-day action plan. He said the council would request Prime Minister Narendra Modi's time to launch these programmes by mid-September.

#### Production boost

The ICAR said in a release that with the help of breeder seeds, about 16 million hectares (mha) are under bio-fortified varieties of different crops, including wheat (13 mha), rice (0.5

mha), pearl millet (1.5 mha), lentil (0.5 mha) and mustard (1 mha) during 2023-24. "Deployment of climate-resilient technologies led to enhanced production even during the abnormal years," the ICAR said.

It said that from 2014-15 to 2023-24, a total of 2,593 high-yielding varieties were released.

These include 2,177 climate-resilient (83% of total) varieties with biotic and abiotic stress resistance, and 150 bio-fortified crop varieties.

## ICAR to release 323 new varieties of 56 crops today (16 July)

Council to launch 'one scientist, one product' programme for its 5,500 scientists to come up with a product, technology, model or publication every year; plan afoot for 100 seed varieties in 100 days

- The Indian Council of Agricultural Research (ICAR) is launching the "one scientist, one product" programme to enhance research in agriculture and animal husbandry.
- This initiative will be inaugurated on the occasion of ICAR's 96th foundation day, with the release of 323 varieties of 56 crops, including climate-resilient and bio-fortified varieties.
- Union Agriculture Minister Shivraj Singh Chouhan will inaugurate the programme.
- Under the programme, ICAR has tasked its 5,521 scientists to develop products, technologies, models, concepts, or publications within a five-year period.
- Monitoring will occur every three months at the institute level and every six months at the headquarters level.
- ICAR aims to develop 100 new seed varieties and 100 farm technologies in 100 days as part of the Centre's 100-day action plan.
- Breeder seeds have facilitated the cultivation of bio-fortified varieties across 16 million hectares, benefiting crops like wheat, rice, pearl millet, lentil, and mustard.
- From 2014-15 to 2023-24, ICAR has released 2,593 high-yielding varieties, including climate-resilient and bio-fortified crop varieties.

## The Indian Council of Agricultural Research (ICAR)

- The Indian Council of Agricultural Research (ICAR) is an autonomous body in India.
- ICAR coordinates agricultural education and research.
- It reports to the Department of Agricultural Research and Education, Ministry of Agriculture.
- The Union Minister of Agriculture is the president of ICAR.
- ICAR is the largest network of agricultural research and education institutes globally.

### Regulation of Agricultural Education:

- The Yashpal Committee (2009) recommended creating a National Commission for Higher Education and Research as a constitutional body.
- This body would regulate all branches of higher education, including agricultural education.
- Currently, ICAR regulates agricultural education.
- The Veterinary Council of India regulates veterinary education.
- The Indian Council of Forestry Research and Education regulates forestry education.
- Many natural resource management institutes in India are also under ICAR.



## Panel reprimands Odisha govt. for building violation in forest land

GS Paper III:  
Environment

NEW DELHI

The Forest Advisory Committee (FAC) of the Union Environment Ministry has reprimanded the Odisha government for building walls, without approval, in forest land that will be part of the proposed Shree Jagannath International Airport in Puri. The committee has also asked the State's Wildlife Warden to evaluate the impact of the proposed airport on the breeding of Olive Ridley turtles, which are routinely found in the vicinity of the coast.

The FAC, under provisions of the Van (Sanrakshan Evam Samvardhan) Adhiniyam, 1980, the legislation that protects forests from wanton razing, is an expert committee that evaluates industrial projects which require for-



The government was pulled up for building walls in forest land that will be part of the proposed airport in Puri. REPRESENTATIVE IMAGE

est land for their activities. The committee may or may not approve a project and can give an approval for forest land to be diverted, after imposing certain conditions. In this case, satellite pictures showed that the agency tasked with the project – it is not clear which agency – had already built a wall without waiting for approval by the

FAC and the Union Environment Ministry.

In its meeting on June 24, the FAC has asked the government to furnish the names of the "erring officers" responsible for allowing or not stopping the unauthorised construction; a detailed violation report indicating the date and time of the commencement of construction; the

status of work and efforts made by officers in the State government to stop the work; details of the authority/agency issuing work order for construction of boundary wall; and the entity bearing the expenditure incurred on the said alleged construction.

Following this, the committee said it would take a decision on according forest clearance to the project. The Puri airport is likely to use 27,887 hectares of forest land, and the project will involve the felling of 13,504 trees in the forest.

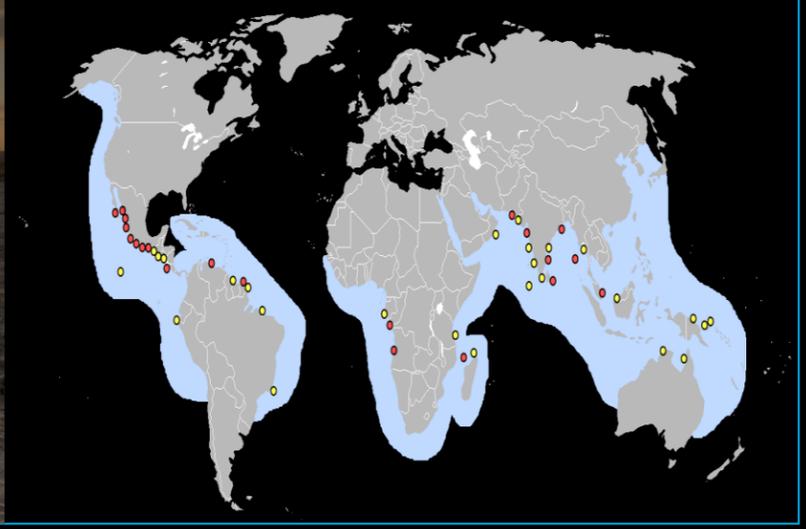
The Airports Authority of India identified the site in 2021. The Ministry of Civil Aviation issued the site clearance certificate in September 2023. The total projected cost of the airport is ₹2,023 crore, and it is expected to be built by a public-private consortium.

## Olive Ridley Sea Turtle

- The olive ridley sea turtle (*Lepidochelys olivacea*) is also known as the Pacific ridley sea turtle.
- It belongs to the Cheloniidae family.
- It is the **second-smallest and most abundant sea turtle species** in the world.
- Found in warm and tropical waters, mainly in the Pacific and Indian Oceans, and also in the Atlantic Ocean.



- Known for unique synchronized mass nestings called "arribadas," where thousands of females gather on the same beach to lay eggs.



PatrioticIAS

# 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  
GS Paper III: Science and Technology

In June, S. Somanath, 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. Somanath 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, like Europe's Ariane V 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 communications, 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. Somanath 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. Somanath 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. Somanath 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 at the scale ISRO expects will not be created. The customers here are not only consumers of space-based internet. These 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



An LVM-3 launch vehicle lifts off from ISRO's Sriharikota spaceport carrying the Chandrayaan-3 mission to orbit. ISRO

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 (28% 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



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. Somanath 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 workers and give them jobs.

However, private companies don't want the government to be in the launch business. Instead, they want the government to be their customer and to provide rule of law and reliable regulations.

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 thus 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 Ministries and creating some of the anchor demand for satellites and launch vehicles.

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

ISRO has a problem: many rockets, but too few satellites to launch (16 July)

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

- S. Somanath, Chairman of ISRO, stated in June that ISRO's launch vehicle capability exceeds current demand by three times.
- This statement raised concerns in the spaceflight sector about the market's viability.
- India operates four launch vehicles: SSLV, PSLV, GSLV, and LVM-3, capable of launching satellites up to four tonnes to geosynchronous orbits.
- Larger satellites (>4 tonnes) require foreign launch vehicles like Ariane V or SpaceX's Falcon 9.
- India's satellite fleet supports communications, remote sensing, navigation, meteorology, disaster management, and scientific missions.
- ISRO shifted to a demand-driven model in 2019-2020, requiring satellites to be built and launched only upon existing demand.
- A challenge now is educating potential customers about satellite services to stimulate demand, such as for space-based internet.
- Future potential demand could arise from human spaceflight and space tourism ventures.

#### Launch capability limitations

- India's current launch vehicles, including LVM-3, are less powerful than China's Long March 5, which limits capabilities for missions like Chandrayaan 4.
- LVM-3's payload capacity to GTO is 28% of Long March 5's capacity, necessitating two launches for Chandrayaan 4.
- ISRO plans to upgrade LVM-3 with a semi-cryogenic engine to increase payload capacity to six tonnes to GTO.
- A new launch vehicle, Next Generation Launch Vehicle (NGLV) or Project Soorya, is proposed to carry 10 tonnes to GTO, but funding is pending.
- SSLV requires more successful launches to build confidence for launching smaller experimental satellites.
- Increased satellite missions, including replacements due to aging satellites, will drive demand for launch vehicles.
- ISRO is improving launch vehicle economics with reusable rocket stages and exploring green alternatives for rocket fuels.

#### Private sector vs government

- Somanath suggests that creating a robust ecosystem will generate demand for satellite services, thereby increasing the need for launch vehicles.
- The Indian government encourages the private sector to stimulate demand by offering satellite services domestically and internationally.
- Private companies prefer the government as a customer rather than a competitor in the launch business, seeking long-term revenue stability.
- There's a proposal for the government to act as an 'anchor customer' initially, supporting private companies in their early stages until they can sustain themselves.
- Eventually, the government plans to phase out of the launch vehicle business, similar to the U.S. model where government contracts support private launch providers like SpaceX and Blue Origin.
- Currently, there's a gap in educating government ministries and creating anchor demand for satellites and launch vehicles within India.



A rare spade-toothed whale after it was found washed ashore in the second week of July on a beach near Otago, New Zealand. AP

## World's rarest whale may have washed up on beach in New Zealand

GS Paper III:  
Environment

The spade-toothed whales are the world's rarest, with no live sightings ever recorded. No one knows how many there are, what they eat, or even where they live in the vast expanse of the southern Pacific Ocean. However, scientists in New Zealand may have finally caught a break.

The country's conservation agency said Monday a creature that washed up on a South Island beach this month is believed to be a spade-toothed whale. The five-meter-long creature, a type of beaked whale, was identified after it washed ashore on Otago Beach by its colour patterns and the shape of its skull, beak, and teeth.

"We know very little, practically nothing about the creatures," Hannah Hendriks, Marine Technical Advisor for the Department of Conservation said. "This is going to lead to some amazing science and world-first information."

If the cetacean is confirmed to be the elusive spade-toothed whale, it would be the first specimen found in a state that would permit scientists to dissect it, allowing them to map the relationship of the whale to the few others of the species found, learn what it eats, and perhaps lead to clues about where they live.

Only six other spade-toothed whales have ever been pinpointed, and those found intact on New Zealand's North Island beaches had been buried before DNA testing could verify their identification, Hendriks said, thwarting any chance to study them.

This time, the beached whale was

**If the cetacean is confirmed to be the spade-toothed whale, it would be the first specimen found in a state that would permit scientists to dissect it**

quickly transported to cold storage, and researchers will work with local Maori iwi (tribes) to plan how it will be examined, the conservation agency said.

New Zealand's Indigenous people consider whales a taonga – a sacred treasure – of cultural significance. In April, Pacific Indigenous leaders signed a treaty recognising whales as "legal persons," although such a declaration is not reflected in the laws of participating nations.

Nothing is currently known about the whales' habitat. The creatures deep-dive for food and likely surface so rarely that it has been impossible to narrow their location further than the southern Pacific Ocean, home to some of the world's

## World's rarest whale may have washed up on beach in New Zealand (16 July)

- Spade-toothed whales are incredibly rare, with no live sightings recorded and little known about their population, diet, or habitat.
- Recently, a beached whale on Otago Beach in New Zealand is believed to be a spade-toothed whale, identified by its physical characteristics.
- This discovery could provide scientists with the first opportunity to dissect and study a spade-toothed whale specimen, potentially revealing new insights about its biology and habitat.
- Previously found specimens in New Zealand were buried before DNA testing, hindering detailed study.
- The whale has been stored in cold storage for examination, with plans to involve local Maori tribes in the research.
- New Zealand's Indigenous people consider whales as taonga, or sacred treasures.
- The southern Pacific Ocean is their suspected habitat, but exact locations are elusive due to their deep-diving behavior.
- Genetic testing to confirm the whale's identity may take several months.
- Researchers emphasize the difficulty in studying these elusive mammals due to their rarity and deep-sea habits.

# 'Big brother' to 'Brother', a Nepal-India reset

GS Paper II: India-Nepal Relations

Relations between India and Nepal have dipped severely since 2015 when Narendra Modi and Khadga Prasad Oli were both Prime Ministers. There is now opportunity to upgrade the relationship to 'positive' and 'stable' with Mr. Modi having reclaimed the top post a third time and as Mr. Oli too comes out on top, in a unique collaboration between his CPN-UML and the Nepali Congress.

The bilateral turbulence started with adoption of the new Constitution by Nepal's Constituent Assembly in 2015, which New Delhi had wanted reworked. Some politicians seem to have made promises to Mr. Modi in their New Delhi visits, but in the end they promulgated the draft unamended.

While perfunctorily pointing the finger at Madhesi activists of the Tarai plains, New Delhi slapped a devastating blockade on Nepal that lasted nearly six months and generated enough bad blood to last a generation. Mr. Oli reacted sharply and on the rebound signed 10 agreements with Beijing, extending from trade, transit to power and transport.

The two Prime Ministers did meet after the blockade was lifted, but the effervescent Mr. Oli would not hold back from suggesting that the true historical Ayodhya was within present-day Nepal, or that India's aggressive bent called for replacing the national motto 'Satyameva Jayate' with 'Singhameva Jayate'. Following an updated political map published by India in October 2019, Nepal's Constitution was amended to add the Limpiyadhura-Kalapani triangle to its own map on the northwest.

Even as relations soured, New Delhi became more involved in Nepali governance and politics. Beyond politico-diplomatic pressures and above-ground activities of undercover personnel, New Delhi began fielding Hindutva advocates in the plains and hills. The Rashtraiya Swayamsevak Sangh (RSS) and the Bharatiya Janata Party (BJP) wanted to convert Nepal into their own image of India.

## Power and prowess

Conjecture is rife in Kathmandu on what Mr. Modi's third innings portends, given the legacy of the blockade, Hindutva activism, economic stifling and geopolitical coercion. With his foreign policy and national security teams unchanged, will he mellow or become more adventurous to make up for the BJP's domestic deceleration?

The two Prime Ministers must use the opportunity of their elevation in Delhi and Kathmandu to clear the logjam. With his 'Neighbourhood First' initiative battered on all quadrants, Mr. Modi may want to start with policy corrections on Nepal as the nearest and closest neighbour. Indian exceptionalism having long preceded Mr. Modi, going back to Jawaharlal Nehru's diktats to Kathmandu's bickering politicians, New Delhi should have known by now that manufacturing consent in Nepal is a lost cause.

India's relentless engagement with Nepal's politics and governance goes against the principle of non-interference that is part of the Panchsheel



**Kanak Mani Dixit**

the Founding Editor of the Himal Southasian magazine and lives in Kathmandu

The Prime Ministers of India and Nepal, who were in power when bilateral ties collapsed, must rebuild trust as they are back in power once again

doctrine. New Delhi should also understand that a hands-off policy will, ipso facto, lead to a politically stable and economically energised Nepal, which will in turn benefit India's own national security and the economy of its Hindi heartland.

Nepal is not the basket-case neighbour as perceived by many in India. It is the seventh largest remittance-sending country to India, helping provide for livelihoods in its poorest parts, from Uttar Pradesh and Bihar, all the way to Odisha. Seen in this light, New Delhi's overbearing attitude seems based on power, not prowess.

## Playing the system

Amidst unrelenting political chaos, the ability of Kathmandu's political class, civil society, the bureaucracy and even security forces to speak on equal terms with Indian counterparts stands severely eroded. Over the decades, Nepal's political leadership has had its share of weaklings and quislings, but the worst dip came in the just-ended prime ministerial run of Pushpa Kamal Dahal ('Prachanda'), the Maoist chieftain, who early on had disclosed his wish to be "comfortable" for New Delhi.

Returning from an official visit to New Delhi in June 2023, Mr. Dahal conceded that he had refrained from bringing up issues that would spoil Mr. Modi's mood and "ruin the atmosphere". During the trip, he failed to raise each and every pending bilateral matter, including air routes for Nepal's stillborn international airports at Bhairahawa and Pokhara, the festering territorial dispute over Limpiyadhura-Kalapani, and a report of the Eminent Persons' Group (EPG) collecting dust. To please the RSS, he and his entourage shed their official attire to don saffron robes at the Mahakaleshwar Temple in Ujjain, Madhya Pradesh.

Mr. Dahal concluded a power trade agreement that allows New Delhi to refuse import from hydel plants built with Chinese loans or Chinese contractors under international bidding. He has allowed the Indian Embassy in Kathmandu to independently disburse grants of up to Nepal rupees 20 crore, a facility not available to any other embassy. Meanwhile, New Delhi is on a campaign in Kathmandu to persuade delinking Nepal's hydropower from its water resource, so that bilateral agreements do not require two-thirds ratification by Parliament.

In June 2024, Mr. Dahal exuded confidence after attending Mr. Modi's swearing-in, believing that his meagre 32 seats in the Lower House combined with New Delhi's backing gave him the "magic formula" to remain in power. This was not to be, and New Delhi may now see the limits to its ability to play the system in Kathmandu.

As Mr. Oli takes over the reins in Kathmandu, he must discard the lethal diffidence of his predecessor, standing up for Nepal and speaking for South Asia. All bilateral matters that are hanging fire must be brought confidently to the table for airing and resolution. He must also convince Mr. Modi of the importance of reviving the South Asian Association for Regional

Cooperation, for the sake of a South Asia that holds a fourth of the global population.

New Delhi must understand that while Nepal's friendship with Beijing is non-negotiable, it will never be at the cost of India. Nepal cannot afford for it to be otherwise. Meanwhile, it is incongruous that New Delhi pressures Kathmandu on China-linked hydropower, airports and airlines even as China emerges as India's largest trading partner.

It was Mr. Modi and Mr. Oli who together nominated the eight-member India-Nepal Eminent Persons' Group back in 2017. The team finalised its consensus report the following year, whose implementation is expected to lift bilateral relations towards a transparent, confident and equal partnership. If Mr. Modi and his team continue to stall on the release of the report, as is the case, informal means have to be sought to access its content.

Up ahead, the Nepal-India relationship must be calibrated outside the two poles of imperious New Delhi and subservient, obsequious Kathmandu. The latter must find its voice, and New Delhi must reflect on how the failed policy of interference in politics and governance has left Nepal flailing.

## A South Asia at peace

The 'default setting' of the Nepali state and people is cordiality towards India and Indians, but New Delhi seems unconvinced. A continuing 'Himalayan paranoia', with its origins in the 1962 debacle with China, fuels geo-strategic insecurity in New Delhi think-tanks. Hence, they are far from considering Nepal as the future connectivity gateway to the Chinese mainland via railways and roadways breaching the Himalayan rampart.

Nor do New Delhi economists care to note the enormous savings in military expenditure represented by the very presence of Nepal as a benign buffer along the central stretch of the Himalaya – even more relevant amidst the ongoing concern over the Indian exchequer's inability to bear military costs and pensions.

The open Nepal-India border is the prototype for a future South Asia at peace, even though New Delhi analysts constantly harp on the insecurity it represents for India.

In fact, it is Nepal which has suffered, with the Maoists using shelters across the unregulated frontier during their decade of insurrection against the Nepali state. Every summer, the Indian media goes to town about Nepal 'releasing' monsoon waters into the Ganga plain, but there are no significant storage dams in Nepal and the two barrages on the Gandaki and Kosi are controlled by New Delhi.

'Nepal studies' does not exist as an academic discipline in India, which is one reason Indian citizens think of Nepal as a poor, ungrateful and even malevolent neighbour. It is Kathmandu's job to reach out, erase misconceptions and suggest possibilities. Exasperated Nepalis would like to see India convert from the 'big brother' avatar to simply being 'brother'. New Delhi's policymakers can do their part by accepting that Nepal is, after all, a separate country.

## 'Big brother' to 'Brother', a Nepal-India reset (16 July)

- India-Nepal relations worsened since 2015 when Narendra Modi and Khadga Prasad Oli were Prime Ministers.
- Both leaders are back in power, providing a chance to improve relations.
- The conflict began with Nepal's new Constitution in 2015, which India wanted amended.
- India imposed a six-month blockade on Nepal, blaming Madhesi activists, causing long-lasting resentment.
- In response, Oli signed 10 agreements with China on trade, transit, power, and transport.
- Oli made controversial statements about Ayodhya and India's national motto.
- India published an updated political map in 2019, leading Nepal to amend its Constitution and include disputed territories.
- India increased involvement in Nepal's governance and politics, with Hindutva groups like RSS and BJP seeking influence.
- Concerns exist in Kathmandu about Modi's third term due to past actions like the blockade and Hindutva activism.
- Questions arise about whether Modi will soften his approach or become more assertive.
- Modi's "Neighbourhood First" policy faces challenges, and Nepal is a crucial neighbor to address.
- India's historical interference in Nepal has often been counterproductive.
- Non-interference could lead to a stable and economically energized Nepal, benefiting India.
- Nepal is the seventh largest sender of remittances to India, supporting livelihoods in poor Indian states.
- India's overbearing attitude is based on power rather than genuine prowess.

## Playing the system

- Nepal's political class, civil society, bureaucracy, and security forces have lost their ability to engage equally with India due to ongoing political chaos.
- Nepal's leadership has had weak figures, but the worst period was during Pushpa Kamal Dahal's term.

- After a visit to New Delhi in June 2023, Dahal admitted avoiding issues that might upset Modi.
- Dahal did not address key bilateral issues like air routes for Nepal's airports, the territorial dispute over Limpiyadhura-Kalapani, and the Eminent Persons' Group (EPG) report.
- To please the RSS, Dahal and his team wore saffron robes at a temple in India.
- Dahal signed a power trade agreement allowing India to reject hydropower from plants financed or built by Chinese entities.



- He allowed the Indian Embassy in Kathmandu to independently disburse grants up to 20 crore Nepalese rupees, a privilege not given to any other embassy.
- India is trying to separate Nepal's hydropower from its water resources to avoid requiring parliamentary ratification for agreements.
- After attending Modi's swearing-in in June 2024, Dahal believed his 32 seats and New Delhi's support would keep him in power, but this did not happen.
- Oli, as the new leader, must confidently address all bilateral issues and push for the revival of the South Asian Association for Regional Cooperation (SAARC).
- India must understand that Nepal's friendship with China will not come at the expense of its relationship with India.
- It is inconsistent for India to pressure Nepal on China-related projects while China is India's largest trading partner.
- Modi and Oli nominated the India-Nepal Eminent Persons' Group in 2017, which finalized its report in 2018, aiming to improve bilateral relations.
- If the report remains stalled, alternative ways should be found to access its content.
- The Nepal-India relationship needs to move beyond the dynamics of a dominant New Delhi and a submissive Kathmandu.
- Kathmandu must assert its voice, and New Delhi should reconsider its policy of interference in Nepal's politics and governance, which has been counterproductive.

#### A South Asia at peace

- Nepali state and people naturally feel cordial towards India, but New Delhi remains skeptical.
- Historical paranoia from the 1962 conflict with China contributes to India's strategic insecurity.
- New Delhi does not view Nepal as a potential connectivity gateway to China via railways and roadways.
- Indian economists overlook the savings in military expenditure due to Nepal being a benign buffer in the Himalayas.
- The open Nepal-India border exemplifies a peaceful South Asia, despite concerns from Indian analysts about security.
- Nepal has suffered from the open border, with Maoists using it during their insurrection.
- Indian media often blames Nepal for monsoon floods, but significant storage dams in Nepal are lacking, and the Gandaki and Kosi barrages are controlled by New Delhi.
- There is no academic discipline of 'Nepal studies' in India, leading to misconceptions about Nepal being poor, ungrateful, or malevolent.
- Kathmandu should work to clear these misconceptions and suggest positive possibilities.
- Nepalis want India to see Nepal as a brother, not a big brother.
- New Delhi should recognize Nepal as a separate country.

16<sup>th</sup> July 2024

MAINS PRACTICE QUESTION

GS Paper II: Indo-Nepal Relations

**Question:** Comment on the Challenges in India-Nepal Relations despite Cultural, Geographical, and People-to-People Proximity. (150 Words/10 Marks)

**ANSWER APPROACH:**

**ANSWER:**

## The Union Budget as litmus test of a rethink or stasis (16 July)

- Union Finance Minister Nirmala Sitharaman will present the Union Budget on July 23.
- The government is a BJP-led coalition with 240 seats, down from 303 in 2019.
- The budget reflects the policy and politics of the incumbent government.
- Coalition politics and regional partners' aspirations must be considered.
- The reduced BJP seat count may indicate dissatisfaction with the government's economic policies from 2019-24.
- The recent general election focused on 'bread and butter' issues like unemployment and inflation.
- The Budget is being closely watched due to public concerns about these issues.
- Employment was a major campaign issue in the 2024 election.
- Economists from the Chicago and Columbia schools oppose government efforts to generate employment opportunities.
- This opposition affects potential funding for MGNREGA and similar urban employment programs.
- MGNREGA was created due to the private sector's failure to generate sufficient employment.
- Reports by CMIE, ILO, and the Institute for Human Development highlight issues with underemployment and unemployment, especially among youth and educated individuals.
- Regular employees' real incomes have decreased due to high informalization and poor job quality.
- Casual labor incomes have increased, possibly due to MGNREGA and other government social programs.
- Women's participation in the labor market has increased, mostly as unpaid family labor and odd jobs to supplement household incomes.
- There is a structural shift in employment with more people working in the primary sector and less in the secondary sector.
- The MSME sector has contracted due to demonetization, GST, and the COVID-19 lockdown.
- Previous budgets focused on infrastructure, skill-based programs, credit for start-ups, and fiscal prudence, which benefited high-value sectors with low employment impact.
- The focus should shift to generating employment and inclusive growth.
- The Budget should prioritize MSMEs catering to domestic consumption and socially marginalized groups.
- Given India's poor performance on the Human Development Index and Multi-Dimensional Poverty Index, the Budget should allocate more funds to education, health, and housing for deprived sections, combined with employment-generation objectives.
- While India is projected to become the third-largest economy, joblessness and poor quality employment growth remain issues since the mid-1990s.
- Political focus on continuity may overlook these critical issues in the Budget.

## Dodging bullets (16 July)

### Biden and Trump should not worsen the polarisation after the attempt

- Former US President Donald Trump survived an assassination attempt during a political rally in Butler, Pennsylvania.
- The gunman, Thomas Crooks, fired at Trump, hitting his ear.
- Secret Service agents rushed Trump off the podium.
- Law enforcement officers returned fire, killing Crooks.
- Crooks was a registered Republican who had donated to a pro-Democratic group.
- The incident occurred a little over three months before the 2024 presidential election.
- The attack follows months of Trump and his supporters occasionally condoning or sympathizing with political violence.
- Trump previously called the January 6, 2021 Capitol Hill mob "unbelievable patriots."
- The seriousness of the attack generated some bipartisan sympathy.
- President Joe Biden condemned the attack, stating there is no place for such violence in America and called for unity.
- Other political figures expressed similar sentiments.
- - Trump was already projected to be leading Biden narrowly in swing states.
- - The assassination attempt might increase Trump's lead, but it's uncertain if it will be decisive by election day.
- - Former President Ronald Reagan's ratings jumped after he was shot but returned to normal within weeks.
- - The Trump campaign might use the attack to promote hate politics.
- - Many comments on social media blame Democrats for the violence.
- - If the candidates and their teams resort to divisive language, it will worsen public polarization.
- - The winner on November 5 could face a deeply divided nation, making bipartisan cooperation difficult.

## Back to the future (16 July)

### Alcaraz and Sinner confirm the rise of a new generation

- Federer retired and Nadal is fading away, shifting fans' focus to future stars.
- Carlos Alcaraz's straight sets win over Novak Djokovic at Wimbledon signals a new era.
- Djokovic, a 24-time Major winner, recently had knee surgery and hadn't made a final since last November.
- Despite this, Djokovic was a formidable opponent with seven Wimbledon titles and only nine losses since 2005.
- Alcaraz, 21, beating Djokovic twice in a row is a significant achievement.
- For the first time since 2003, three consecutive Majors have no winners from the Big Three.
- Alcaraz, with four Grand Slam titles in two years, surpasses Andy Murray and Stan Wawrinka.
- Other talented players like Jannik Sinner and Daniil Medvedev are emerging, but Alcaraz seems the most complete.
- Alcaraz has won titles on clay, hard, and grass courts, including debut finals at Roland-Garros and Wimbledon.
- Barbora Krejčíková won the Wimbledon women's singles title, adding to her French Open win in 2021.

- Krejckikova's win shows the depth in the women's game rather than instability.
- Wimbledon might continue to see varied winners until top players like Iga Swiatek and Aryna Sabalenka master the grass courts.

# On the politics of the Nishad community

Have the votes of the Nishad community, a group under the Extremely Backward Castes, shifted from the National Democratic Alliance to the INDIA alliance? How does their political consolidation differ in Bihar and Uttar Pradesh?

GS Paper I: Castism

EXPLAINER

Sarthak Bagchi  
Rama Shanker Singh

## The story so far:

In his thanksgiving speech after the 2024 Lok Sabha elections, Congress leader Rahul Gandhi said that Uttar Pradesh had shown the way to the nation while referring to the success of the INDIA-alliance in the State. The INDIA-alliance was able to get more of the Extremely Backward Caste (EBC) votes as compared to the National Democratic Alliance (NDA)-led by the Bharatiya Janata Party (BJP).

## How dominant are EBCs?

In Bihar, the recently held caste survey puts the total population of the EBCs at 36%. When combined with the Other Backward Classes (OBC), backward castes make up 63% of the total population of the State. As the CSDS-Lokniti data suggests, in 2024 the grip of the NDA parties over EBC votes has dwindled as compared to previous elections and this includes the Janata Dal (United) or JD(U), the party of Bihar Chief Minister Nitish Kumar, who has till now enjoyed staunch support from EBC voters. On the other hand, the INDIA alliance has been able to make substantial inroads into the EBC vote bank. Among the EBC communities, the Nishad community which consists of almost 20 jatis, make up about 9% of the population of the State.

In U.P., unlike in Bihar, there is no separate category for EBCs that distinguishes them from OBCs. Castes such as Yadav, Kurmi, and Patel, who are landowners and politically strong, were visible during past elections. And despite not owning land, castes like Maurya and Kushwaha were also prominent in elections. Now, the Bhar and Nishad communities have also established a significant presence in U.P. According to data from the 2001 Hukum Singh committee, OBCs make up over 50% of U.P.'s population, with Yadavs being the largest group at 19.4%. Among the non-Yadav castes which make up the rest of the OBCs in the State, Kurmis and Patels represent 7.4%, Nishads, Mallahs, and Kevats 4.3%, Bhar and Rajbhars 2.4%, Lodhs 4.8%, and Jats 3.6%. However, there is no concrete caste-wise breakdown of the OBC population.

## Who are the Nishads?

Nishad is an umbrella term for dozens of riverine castes in north India. After the Mandal Commission report, they started introducing themselves as 'Nishad', a singular political and social entity. The Nishad community, one of the politically visible but less represented groups in the electoral landscape of U.P. in the past, is now being noticed. Although there is no clear demarcation between OBC and EBCs, they are considered EBCs and have rallied behind the Akhilesh Yadav-Rahul Gandhi duo. In adjoining Bihar too, the Nishad community rallied strongly behind Mukesh Sahani, also known as 'son of mallah', who is a member of the INDIA-alliance and was seen campaigning along with Rashtriya Janata Dal (RJD) leader Tejaswi Yadav.

The politics of the Nishad community has rarely seen any comparative analysis between the States of U.P. and Bihar. The fieldwork done by the authors on the Nishads took place across several districts of U.P. and Bihar such as Banda, Chitrakoot, Kaushambi, Prayagraj, Bhadohi, Chandauli etc. and Banaras, Mirzapur, Prayagraj, Vaishali, Hajipur, Madhubani, Muzaffarpur.



A strong force: VIP president Mukesh Sahani and his supporters block a railway track during a protest against the Citizenship (Amendment) Act, in Patna, in 2019. PTI

## Who did they support in U.P.?

It was found that the Nishads were drifting away from the BJP and had been mobilising for the INDIA block. In Varanasi, the female voters of the Nishad community were more comfortable with Narendra Modi in comparison to their male counterparts, but in other areas, they were more affiliated to the Samajwadi Party (SP) and Congress. The support for Congress among Nishads is a new phenomenon in the last two decades of U.P.'s politics. As far as the SP is concerned, it was Mulayam Singh Yadav who brought this community to the political forefront. Phoolan Devi was given a Lok Sabha ticket from the SP in 1996. She won the seat from the Mirzapur constituency in U.P. and was also later re-elected in 1999. Thus, the Congress was absent among the Nishads in these areas from 1989. But this time, one could see a formidable political faith among Nishads for Congress, especially in Banda, Chitrakoot, and Prayagraj. This was partly due to the SP-Congress alliance and partly to Rahul Gandhi's 'Constitution speeches'. Elders and youngsters of the community were discussing the 'samvidhan'. This is a new takeaway from this election where the Indian Constitution is finding a social life in marginal spaces.

## What about Bihar?

In Bihar, the Nishad community's foray into electoral politics had been restricted to limited cases of representatives being promoted by different political parties such as Jai Narain Nishad in the 1990s-2000s who switched between JD(U) and BJP and Ramkaran Sahni, in the 1970s and 80s. The post-Mandal politicisation of different caste groups in Bihar was a

missed opportunity by the Nishad community as its loyalty was fragmented across different parties in the absence of a strong political formation from within the community. Mukesh Sahani and his Vikassheel Insaan Party (VIP), since 2014, claim to be working towards the consolidation of the Nishad community as an important political force. With the caste survey of Bihar placing the community's 22 sub-caste's total population to be almost 10% of the State's population, its numerical strength has assumed a new political significance. The 2024 elections saw the BJP winning the trust of the Nishad voters in Muzaffarpur, a constituency where Nishads have emerged as a 'dominant caste'. The BJP has acknowledged this victory as a window of opportunity for further consolidation, evident from its inclusion of Muzaffarpur's MP and first time parliamentarian, Raj Bhushan Choudhury in the Modi 3.0 Cabinet. Incidentally Mr. Choudhury contested on the same seat unsuccessfully in the 2019 parliamentary elections, but on a VIP ticket. This is also the pressing challenge faced by the VIP party in Bihar, that despite having built a decent party organisation and a good ground presence within the community, the party is unable to attract or put forward strong winnable candidates on its ticket, which reflects the paucity of leadership within the community.

## What are core issues of the Nishads?

The Nishads of U.P. aspire for two things. One is rights over rivers and river produce, and the other is representation. They demand representation through the Constitution and rights by cultural means. They are fighting for rights over rivers

through caste assertion, historical memory, and myths. Through Nishadraj Guha, Eklavya, Ramacharan Mallah, Phoolan Devi, and other organic leaders of the community, they try to expand their history from time immemorial to the present. They are mobilising themselves for their rights in sand mining, fishing, and plying boats. These three activities are the main source of the Nishad communities' income.

The Nishads also increasingly assert themselves while negotiating with a confrontational state. For example, in Banswar village, Prayagraj, clashes between local Nishads and the Prayagraj administration around the issue of sand mining in the Yamuna river, resulted in the mobilisation of Nishads across eastern U.P. This incident resulted in all major political parties pursuing the community with their specific assurances. Sanjay Nishad of the Nishad Party assured action, while Priyanka Gandhi of the Congress pledged ₹10 lakh in assistance and supported the formation of a 'Nishadraj Cooperative Society' for sand mining. Akhilesh Yadav promised boats to Nishads if SP won in 2022.

The Nishads in Bihar have also been involved in similar struggles. The key demand of the community is their inclusion in the list of Scheduled Castes (SC) in the State. After mounting pressure on the Nitish Kumar government since 2014 via several caste-based organisations, the Bihar Government got a socio-economic assessment done through ethnographic accounts of the community by the A.N. Sinha Institute to assess its claims of backwardness. The caste survey data in 2023 reinforces the socio-economic backwardness of the community, which has made their demand for reservations under the SC category more vocal.

## What happened in the elections?

According to an estimate, the Nishad community influences the outcome of more than 20 parliamentary constituencies in U.P., especially in the Poorvanchal region and about 10 constituencies of Bihar, particularly in the north Bihar and Mithilanchal region. Every national and regional party active in U.P. wants the support of the community. The emergence of the Nishad Party – Nirbal Indian Shoshit Hamara Aam Dal – in 2016 hugely mobilised the community towards a single party, which has been an ally of the NDA since 2019.

While it played a role in BJP's social engineering in the 2019 Lok Sabha elections, in the 2024 elections it failed. It was not given the party symbol and Praveen Nishad, the son of Sanjay Nishad, had to contest the election as a BJP candidate. He lost the Sant Kabir Nagar seat to Pappu Nishad of SP. In Bihar, although Sahani's VIP party failed to win any of its three seats in Gopalganj, Jhanjharpur and Purvi Champaran, it was able to successfully transfer Nishad votes to the INDIA alliance in Patliputra, Arrah and Buxar. Between 1952 and 2004 in Bihar, there was only one MP from the Mallah sub-caste, two from the Noniya sub-caste and two from the Nishad sub-caste. The political mobilisation of the Nishad community aims to change this. Thus, by assessing the politics of the Nishad community in two States of the Hindi heartland, we get a sense of how different communities' politics are playing out within the EBCs on the ground.

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## THE GIST

Nishad is an umbrella term for dozens of riverine castes in north India. After the Mandal Commission report, they started introducing themselves as 'Nishad', a singular political and social entity.

The Nishads of U.P. aspire for two things. One is rights over rivers and river produce, and the other is representation. The Nishads in Bihar have also been involved in similar struggles. The key demand of the community is their inclusion in the list of Scheduled Castes (SC) in the State.

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## On the politics of the Nishad Community (16 July)

Have the votes of the Nishad community, a group under the Extremely Backward Castes, shifted from the National Democratic Alliance to the INDIA alliance? How does their political consolidation differ in Bihar and Uttar Pradesh?

- Rahul Gandhi, in his post-2024 Lok Sabha election speech, credited Uttar Pradesh (U.P.) for setting an example for the nation, highlighting the success of the INDIA alliance in the state.
- The INDIA alliance garnered significant support from the Extremely Backward Castes (EBCs) in U.P., surpassing the NDA-led by the BJP in EBC votes.
- In Bihar, EBCs constitute 36% of the population and, combined with Other Backward Classes (OBCs), make up 63%.
- The NDA's hold over EBC votes in Bihar has weakened, while the INDIA alliance made substantial gains, particularly among the Nishad community.
- In U.P., OBCs form over 50% of the population, with Yadavs being the largest group at 19.4%, followed by Kurmis, Patels, Nishads, Mallahs, Kevats, Bhar, Rajbhars, Lodhs, and Jats.
- The Nishad community, categorized as EBCs, has historically supported leaders like Akhilesh Yadav and Rahul Gandhi, marking a shift towards the INDIA block in recent elections.
- The Nishad community in U.P. showed a preference for the Samajwadi Party (SP) and Congress in the 2024 elections, aligning with the SP-Congress alliance and Rahul Gandhi's initiatives.
- This election saw a notable engagement with the Indian Constitution among Nishads in areas like Banda, Chitrakoot, and Prayagraj, influenced by Rahul Gandhi's speeches on constitutional values.

### What about Bihar?

#### Political History and Influence:

- Historically, the Nishad community in Bihar had limited political representation, with sporadic instances like Jai Narain Nishad and Ramkaran Sahni.
- Since 2014, Mukesh Sahani's Vikassheel Insaan Party (VIP) has aimed to consolidate Nishad votes, acknowledging their numerical strength in Bihar.
- In the 2024 elections, BJP gained Nishad votes in constituencies like Muza<sup>2</sup>arpur, where they are emerging as a dominant caste.

#### Challenges and Political Strategy:

- VIP faces challenges in putting forward strong candidates despite organizational strength within the Nishad community.
- BJP's inclusion of Raj Bhushan Choudhury from Muza<sup>2</sup>arpur in the Modi 3.0 Cabinet reflects their focus on consolidating Nishad support.

#### Core Issues of the Nishads:

- **Rights and Representation:** Nishads in U.P. demand rights over rivers and river produce, alongside better representation in governance.
- **Economic Issues:** Sand mining, fishing, and boat operations are vital income sources for the community, sparking conflicts with authorities over rights.
- **Political Mobilization:** Incidents like clashes over sand mining in Banswar village led to political parties making specific promises to the community, such as forming cooperative societies and providing financial assistance.

#### Aspirations and Demands:

- Nishads seek inclusion in the Scheduled Castes (SC) category in Bihar, highlighting their socio-economic backwardness through surveys and ethnographic studies.
- Political leaders like Sanjay Nishad and Priyanka Gandhi have supported community demands, emphasizing economic empowerment and cultural representation.

### What happened in the elections?

#### Political Influence and Constituencies:

- The Nishad community is estimated to sway election outcomes in over 20 parliamentary constituencies in Uttar Pradesh, particularly in the Poorvanchal region, and around 10 constituencies in Bihar, focusing on north Bihar and Mithilanchal region.
- Their influence is significant, with every national and regional party in Uttar Pradesh vying for their support due to their numerical strength and voting bloc potential.

#### Political Mobilization and Party Dynamics:

- The emergence of the Nishad Party (Nirbal Indian Shoshit Hamara Aam Dal) in 2016 consolidated Nishad votes, aligning with the NDA since 2019.
- In the 2024 elections, however, internal dynamics affected their performance. The party symbol was denied, leading Praveen Nishad to contest under BJP but losing to SP's Pappu Nishad in Sant Kabir Nagar.
- In Bihar, Mukesh Sahani's VIP party aimed to mobilize Nishad votes for the INDIA alliance successfully in certain constituencies, despite not winning seats directly.

#### Historical Context and Changing Dynamics:

- Historically, representation of Nishad sub-castes in Bihar has been limited, with significant efforts now to change this through political mobilization.
- The aim is to enhance political representation and influence within the EBCs (Extremely Backward Castes) category, reflecting broader shifts in community politics in the Hindi heartland.

## 100 years of EEG: how does it work and what is its significance? (16 July)

This year marks the centenary of the first human EEG, produced by German physiologist Hans Berger. EEG measures electrical activity in the brain generated by neurons. In research, scientists use EEG for neuroscience, cognitive psychology, neurolinguistics etc

- EEG, or electroencephalography, is a method to study the electrical activity in the brain.
- It was pioneered by Hans Berger in 1924, inspired by earlier studies showing brain electrical signals in animals.
- This technique involves placing electrodes on the scalp to detect brain waves.
- EEG helps diagnose conditions like epilepsy, assess brain function during coma, and monitor effects of anesthesia.
- It's also used in research for neuroscience, psychology, and developing brain-computer interfaces.
- EEG considers "volume conduction," where signals travel through skin, fluid, and bone before reaching electrodes.
- Data from EEG needs correction for accuracy, filtering out noise from eye movements or muscle activities.
- Clinicians interpret EEG data to understand brain activity and diagnose various neurological conditions.

### How does an EEG test work?

- Neurons in the brain constantly exchange ions and molecules with their surroundings.
- When many neurons release ions simultaneously, it creates a wave of electrical activity in the brain.
- Electrodes placed on the scalp detect these voltage changes, forming an electroencephalogram (EEG).
- Electrodes are positioned according to the International 10-20 System, measuring distances between specific points on the head.
- EEG records voltage changes over time, showing patterns of brain activity in millionths of a volt and frequency in hertz.
- It's effective for tracking rapid brain electrical activity in milliseconds but is biased towards signals from the cortex surface and dendrites.
- EEG is less effective at pinpointing deep brain electrical activity generated by axons.
- Researchers combine EEG with other tests like MRI to enhance accuracy and use advanced methods for data analysis and interpretation.

### Advantages of EEG:

- EEG setup is straightforward, cost-effective, and doesn't require much space.
- It does not emit high-energy radiation or sound, unlike MRI.
- Patients are not confined to small spaces, making it less claustrophobic compared to MRI.
- EEG is non-invasive, involving electrodes placed on the scalp to measure brain activity.
- It is portable, allowing for use in various settings.

### Disadvantages of EEG:

- Setting up an EEG test takes time, including applying gel and placing electrodes accurately.
- Readings can be affected by factors such as the person having thicker hair.
- EEG primarily captures surface-level brain activity, limiting its ability to detect deep brain signals.
- It requires sophisticated data interpretation and is often used in conjunction with other diagnostic tests for comprehensive results.

# 100 years of EEG: how does it work and what is its significance?

This year marks the centenary of the first human EEG, produced by German physiologist Hans Berger. EEG measures electrical activity in the brain generated by neurons. In research, scientists use EEG for neuroscience, cognitive psychology, neurolinguistics etc

GS Paper III: S&T

The EEG is a marvel of physics and neurobiology that opens a simple window into the human brain. This window is often small and yet it reveals so much. But not least is the wonder that it reveals anything at all without having to break open the skull first. This year is the centenary of the first human EEG, produced by German physiologist Hans Berger.

## How was the EEG invented?

Berger's feat was preceded by incremental but significant advances across Europe from the late 19th century. In 1875, British physician Richard Caton reported evidence of electrical activity in the brains of monkeys and rabbits. Fifteen years on, his Polish peer Adolf Beck found evidence of fluctuating activity in the brains of dogs and rabbits when he stimulated their senses. In 1912, Vladimir Pravdich-Neminsky produced the first mammalian EEG, of a dog's brain. Berger succeeded him in 1924 with the human counterpart. He is also credited with inventing the EEG, naming it, and introducing its utility in clinical settings.

## What is an EEG?

EEG stands for electroencephalography. 'Electro' pertains to electricity; 'encephalo' refers to the brain; and 'graphy' is a suffix meaning to show or to represent. Neurons in the brain perform various functions by moving electrically charged particles such as ions. The movement of these particles gives rise to electrical activity that a health worker can use an EEG test to visualise. Researchers have also been able to relate data obtained from an EEG with different levels and modes of brain activity, and used it to distinguish reliably between

normal and abnormal states.

EEG is not an uncommon diagnostic test in clinical settings. Among other applications, it is the reference standard – that is, the best test available – to diagnose epilepsy. An EEG test can also reveal the effects of anaesthesia, sleeping patterns, neurological activity during a coma, and availability of oxygen. EEG can also confirm brain death, one of the two legally recognised forms of death in India.

In research, scientists use EEG for neuroscience, cognitive psychology, neurolinguistics, neuromarketing studies and to develop brain-computer interfaces.

## What is volume conduction?

EEG measures electrical activity in the brain generated by neurons. During an EEG test, a health worker will place electrodes on your scalp. There are many layers of skin, fluid, and bone between the electrodes and the neurons. When a neuron produces electrical activity, charged particles will move through all these media before reaching the electrodes, and will be reflected, refracted, scattered, etc. en route.

Volume conduction refers to the movement of electrical activity through this three-dimensional volume. It also stands for the fact that the electrical activity is produced in one place whereas the detectors that detect it are located at some distance. The raw data collected by the electrodes will first need to be corrected for the effects of volume conduction, and then for noise in the data arising from faulty electrodes and incidental physiological activity (such as blinking or muscle activity). A clinician finally interprets the processed data.

## How does an EEG test work?

The neurons that make up the human brain are constantly exchanging atoms,

molecules, proteins, etc. with their surroundings. Sometimes neurons will push ions out into the space between neurons. Since ions of the same charge repel each other, this 'motion' can push away other ions, which push away even other ions, and so on.

When a large number of neurons start this cascade at the same time, a (relatively) big wave of electrical activity flows through the brain. The electrodes on the scalp are made of metal and track the changes in voltage as the waves move past them, creating an electroencephalogram.

## Where are the electrodes placed?

You can place them anywhere, but if you're comparing notes with a scientist or want to follow clinical standards, you should follow the International 10-20 System.

In this system, the distance between two adjacent electrodes is either 10% or 20% of the total distance between two points on the head along which electrodes are being placed.

Four common points of reference are the nasion (the depression between the eyes, just above the bridge of the nose) and theinion (the crest at the back of the skull) going front to back, and from tragus to tragus going side to side. (The tragus is the small flap-like projection on the outer ear; you push it in to shut your ears when there's a loud noise.)

## What does and doesn't EEG show?

The changes in voltage recorded at the electrodes are transmitted to a computer, which plots the readings on a graph with voltage on one axis and time passed on another. Health workers are typically interested in two types of data in the graph: the voltage (measured in millionths of a volt) and the frequency of

the variations (measured in hertz). They will also factor in, among other things, the location of the neurons responsible for the electrical activity recorded by the test (for example, in the neocortex or the allocortex, the two types of cortices of the cerebral cortex).

EEG is better than other diagnostic devices at tracking relatively rapid electrical activity in the brain, in the order of milliseconds. On the downside, it is biased towards electrical signals generated closer to the surface of the cortex, and significantly so towards currents generated by neurons' dendrites and against those generated by the axons. The process to pinpoint where some electrical activity originated within the brain, to result in some electrical data, is also less than straightforward.

To overcome these and other challenges, researchers have used EEG together with other tests, like magnetic resonance imaging (MRI), and have developed sophisticated data acquisition, processing, and reconstruction methods.

## Are EEGs affordable?

Aside from its metrological and diagnostic abilities, an EEG setup is also relatively simple and cost-effective.

The equipment involved doesn't take up much space, doesn't emit high-energy radiation or sounds, doesn't confine patients to small spaces (like MRI), is non-invasive, and is portable (the invasive version of EEG is called electrocorticography, or ECoG).

Similarly, aside from its diagnostic downsides, setting up an EEG test requires time – including applying a gel on the person's head and placing the electrodes in precise locations according to the 10-20 System – and its readings can be affected if the person has so much as thicker hair.

## WPI inflation soars to 16-month high (16 July)

June's food inflation surges to a 22-month peak of 8.7%, lifting overall wholesale price rise to 3.4%; vegetable inflation climbs to 38.8% as onion prices almost double; price gains in the crude oil and natural gas category hit a nine-month high of 12.5%

### Wholesale Price Index (WPI) Increase:

- In June, wholesale inflation rose to 3.4%, the highest in 16 months, up from 2.6% in May.
- This increase was primarily driven by a surge in food inflation to 8.7%, reaching a 22-month high.
- Manufactured products also saw their price gains nearly double to 1.43%.

### Specific Inflation Details:

- Vegetable prices surged, with inflation reaching a 10-month high of 38.8%, driven by significant increases in onion (93.4%) and potato (66.4%) prices year-on-year.
- Other contributors to food inflation included pulses (21.6%), paddy (12.1%), fruits (10.1%), and cereals (9.3%).
- Overall, primary food articles inflation reached 10.9%.

### Month-on-Month Changes:

- Wholesale prices rose by 0.4% on a month-on-month basis in June.
- The Food Index saw a significant increase of 2.5%, the highest since August, compared to 0.6% in May.
- However, prices of manufactured products rose by only 0.14% sequentially, the slowest in four months.

### Impact on Input Costs:

- Rising wholesale prices indicate potential upward pressure on retail prices in the near future.
- Non-food sectors also experienced inflationary pressures, with minerals reaching 9.6% and crude petroleum and natural gas prices rising by 12.6%.

### Future Outlook:

- Analysts suggest that higher crude oil prices, which have been volatile, may continue to influence headline WPI inflation in the coming months.

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