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**Page 01 : GS 2: Indian Polity – Judiciary**

Chief Justice D.Y. Chandrachud has agreed to hear petitions challenging the passage of controversial amendments via the Money Bill route in Parliament.

- ✚ The issue questions whether amendments, including those to the Prevention of Money Laundering Act and Finance Act of 2017, bypassed the Rajya Sabha unconstitutionally.

## 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

**The Hindu Bureau**  
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.

### About of the news:

- ✚ Chief Justice D.Y. Chandrachud has agreed to list petitions challenging the passage of contentious amendments through the Money Bill route in Parliament.
- ✚ The issue was referred to a seven-judge Bench in November 2019 by a previous five-judge Bench led by Chief Justice Ranjan Gogoi.
- ✚ The core question is whether amendments, such as those to the Prevention of Money Laundering Act and the Finance Act of 2017, were correctly passed as Money Bills, bypassing the Rajya Sabha.
- ✚ Money Bills under Article 110(1) of the Constitution are limited to specific financial matters like appropriation from the Consolidated Fund and taxation.
- ✚ The case also involves allegations that categorising certain bills as Money Bills was a tactic to increase executive control over judicial tribunals, which has been contested by petitioners including Rajya Sabha MP Jairam Ramesh.

### About Money bill :

- ✚ Article 110 of Indian Constitution defines a Money bill. A bill will be considered a Money bill if it only contains any or all of the following matters:
  - The imposition, abolition, alteration, remission or regulation of any tax;
  - The regulation of the borrowing of funds or giving of any guarantee by the government of India or amendment of any law regarding the financial obligation of the government of India;

## Daily News Analysis

- Custody of, and payment and withdrawal from, the Consolidated fund of India or the Contingency fund of India;
- Appropriation of funds out of the consolidated fund of India;
- The receipt of funds into the Consolidated Fund of India or to the public account of India;
- The custody or issue of such funds from Consolidated fund or Public account;
- The audit of the accounts of the Union or of a State;
- Declaring any expenditure to be charged on the consolidated fund or increasing the amount of any such expenditure.
- Any matter is incidental to any of the matters specified above.

### Procedure for Money bill

- + **Certification of Money Bill:** It is the Speaker who certifies if a bill is a money bill or not, and his/her decision is final. S/he also authenticates the bill when it is sent to the Rajya Sabha and when it is presented before the President. His/her decision cannot be questioned in the Parliament, in a Court of law or even by the President. [However, the certification of the Aadhar Act, 2016, as a money bill was challenged (judicial review is a basic feature of the Constitution)].
- + **Introduction of the bill:** A money bill can only be introduced with the prior recommendation of the President. Further, a money bill can be introduced only in the Lok Sabha. Such bills are government bills; hence, they can only be introduced by a minister.  
After the bill is passed in the Lok Sabha, it is transferred to the Rajya Sabha for consideration.
- + **Rajya Sabha** has restricted power with regard to money bills. It cannot reject or amend the money. It has to send back the bill within 14 days, with or without a recommendation. The Lok Sabha can either reject or amend the bill. If the bill is not sent back within the stipulated time, it is deemed to have been passed in its original form.
- + **President's Assent:** When the bill is sent to the President for his assent, s/he can either give his/her assent or withhold assent but cannot return the bill for reconsideration. Usually, the President gives assent as the bill is introduced with his/her consideration.

## Daily News Analysis

### UPSC Prelims PYQ : 2023

**Ques : With reference to Finance Bill and Money Bill in the Indian Parliament, consider the following statements:**

1. When the Lok Sabha transmits Finance Bill to the Rajya Sabha, it can amend or reject the Bill.
2. When the Lok Sabha transmits Money Bill to the Rajya Sabha, it cannot amend or reject the Bill, it can only make recommendations.
3. In the case of disagreement between the Lok Sabha and the Rajya Sabha, there is no joint sitting for Money Bill, but a joint sitting becomes necessary for Finance Bill.

**How many of the above statements are correct?**

- a) Only one
- b) Only two
- c) All three
- d) None

**Ans : b)**



Sberbank notes rising trust in the Indian rupee despite sanctions, with transactions and rupee deposits surging. Prime Minister Modi's Moscow visit aims at a \$100 billion trade target by 2030, urging Indian firms to expand into sectors like auto, chemicals, and electronics in Russia.

## '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

**Suhasini Haidar**  
NEW DELHI/MOSCOW

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 aerobots". "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.

- ✚ Sberbank reports a growing trust in the Indian rupee among its clients, with a doubling of rupee-rouble payments since last year despite U.S. and EU sanctions.
- ✚ The volume of transactions handled by Sberbank increased by 80% in the first half of 2024.
- ✚ Indian corporates have increased rupee deposits significantly, with a sixfold rise in corporate deposits in 2024.
- ✚ Prime Minister Narendra Modi's recent visit to Moscow aims to boost economic ties, targeting a \$100 billion trade goal by 2030 with Russia.
- ✚ Indian businesses are urged to explore sectors like auto components, aviation, chemicals, electronics, machinery, and agriculture for exports to Russia.

## Daily News Analysis

- ✚ There is concern that Chinese businesses are benefiting from sanctions by filling the void left by Western companies, urging quicker action from India to strengthen trade relations with Russia.

### UPSC Prelims PYQ : 2019

**Ques : Recently, India signed a deal known as 'Action Plan for Prioritization and Implementation of Cooperation Areas in the Nuclear Field' with which of the following countries?**

- (a) Japan
- (b) Russia
- (c) The United Kingdom
- (d) The United States of America

**Ans: b)**



**Page : 07 : GS 3 : Science and Technology**

India's space program, led by ISRO, faces challenges in aligning launch vehicle capabilities with market demand under a shift to a demand-driven model.

Despite robust satellite applications, educating potential users and enhancing launch vehicle capacities are critical amidst evolving economic and private sector dynamics.

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

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

Pradeep Mohandas

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



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



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,

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)

## Launch Vehicle Capability and Market Demand

## Daily News Analysis

- In June, the Chairman of the Indian Space Research Organisation (ISRO) highlighted that ISRO's launch vehicle capability exceeds current demand by threefold. This statement has raised concerns in the spaceflight sector about the state of the space launch market.
- India operates four launch vehicles:** the Small Satellite Launch Vehicle (SSLV), Polar Satellite Launch Vehicle (PSLV), Geosynchronous Satellite Launch Vehicle (GSLV), and Launch Vehicle Mark-III (LVM-3). These can launch satellites up to four tonnes to geosynchronous orbit.
- For heavier payloads exceeding four tonnes, India relies on foreign launch vehicles like Europe's Ariane V and SpaceX's Falcon 9.

### Challenges in Demand Creation

- The challenge lies in creating awareness and demand for space-based services among potential users such as businesses, government entities, and the general public.
- This education is essential for stimulating demand for satellites and, consequently, launch vehicles.
- Examples include the need for space-based internet services where demand must be generated before satellite constellations are launched to provide the service.

### Limitations and Upgrades in Launch Vehicles

- India's current launch vehicles have limitations for certain missions; for instance, Chandrayaan 4 would require multiple launches of the LVM-3 due to payload capacity constraints compared to vehicles like China's Long March 5.
- ISRO plans to enhance capabilities with semi-cryogenic engines for LVM-3 and proposes the Next Generation Launch Vehicle (NGLV) to handle heavier payloads up to 10 tonnes to geostationary transfer orbit (GTO), pending funding approvals.
- Continued success with the SSLV for smaller satellites is crucial as it encourages growth in satellite size and complexity, thereby increasing demand for launch vehicles.

### Conclusion

- The transition to a demand-driven model in India's space program requires effective customer education and market stimulation to align satellite and launch vehicle production with identified needs.
- This strategic shift aims to optimise resources and foster sustainable growth in the space sector.



### UPSC Prelims PYQ : 2016

**Ques: Consider the following statements:**

**The Mangalyaan launched by ISRO**

1. is also called the Mars Orbiter Mission
2. made India the second country to have a spacecraft orbit the Mars after the USA
3. made India the only country to be successful in making its spacecraft orbit the Mars in its very first attempt

**Which of the statements given above is/are correct?**

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

**Ans : c)**

**Page 12 : GS 3 : Indian Economy : Infrastructure**

The privatisation of Air India in 2022, transferring ownership from the government to Tata Sons, marked a significant milestone and a bold reform since the second wave of liberalisation in 2004.

- ✚ This strategic transformation is anticipated to stabilize the airline sector and positively impact the entire value chain, potentially extending benefits beyond India's borders.

## 'Need stronger aviation ecosystem to brace for fleet doubling in 5-6 years'

**BUDGET IN FOCUS****Kapil Kaul**

The privatisation of Air India leading to the transfer of its ownership by the government to Tata Sons in 2022 and the ensuing transformation plan being undertaken at the airline has triggered a strategic transformation in the country's airline sector.

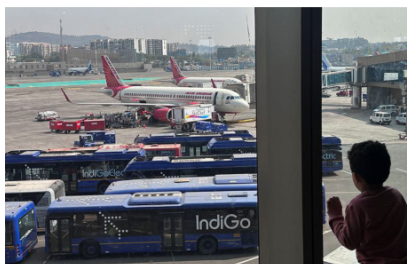
This was a remarkable milestone and the boldest reform since the second wave of liberalisation that commenced in financial year 2004. At the time of Air India's acquisition, CAPA India had anticipated this would be a critical inflection point that would stabilise the airline system which, in turn, would have a positive impact on the entire value chain, possibly even beyond the borders of India.

**Key developments**

Let's look at the key developments in the sector since 2022. Last year, Air India placed an order for a record 470 aircraft, with the option to add another 370 aircraft. The group has added 40 aircraft last year and is expecting to take delivery of five aircraft a month for the near to the medium term.

Meanwhile, India's largest airline IndiGo, which has a fleet of about 370 aircraft with more than 980 on order, continues to grow rapidly, despite supply-chain challenges that have fettered growth plans of airlines globally.

This means the country's airline fleet of almost 700 aircraft could double by the financial year 2030. It took the Indian industry about 90 years from the



**Ground zero:** To support the appetite for travel and fleet expansion plans, India also needs a solid airport infrastructure. REUTERS

**Pilot shortage is a serious issue and is likely to become more acute in light of new DGCA norms**

time of the first commercial flight to reach a fleet size of 700 aircraft. But the rate of growth is so strong that carriers could add a further 600-700 aircraft in just the next 5-7 years.

But, do we have the ecosystem to support this rapid expansion?

**Irreversible stability**

We have a solid and aggressive airline system with the size, scale, aircraft orders and strategic intent to emerge as world-class operators. Air India's investment of \$6.5 billion in its business plan is a reflection of this. IndiGo reported record profitability of approximately \$1 billion in FY2024, with another year of unprecedented results expected in FY2025. Despite there being about 150 aircraft on the ground last year, domestic traffic grew by about 13% in FY2024 and international by 22%.

**Dual-airport system**

To support the appetite for travel as well as airline fleet

planned in Chennai and Pune.

**Policy impetus**

As far as policy impetus is concerned, given the rate of growth of the aviation industry in the country skill shortages could arise across the ecosystem, but particularly with respect to technical staff such as pilots and maintenance engineers and technicians.

The shortage of pilots is a serious issue and is likely to become more acute, especially in light of the new duty and rest norms laid down by the DGCA for them, which could increase the number of pilots required by about 15%.

**Training, skilling**

Similarly, air-traffic controllers as well as security and safety personnel are inadequate relative to requirements. Therefore, the Budget must provide fiscal incentives for investment in skilling, training and education.

**Rationalising taxes**

The Budget could also look at rationalising direct and indirect taxes, which today account for almost 20% of an airline's quarterly revenue such as through levies by States on aviation turbine fuel.

The benefits of airport privatisation have been well demonstrated in the country through access to modern and efficient infrastructure as well as the economic development unleashed for the wider geographical region, and therefore the government must fast track the privatisation of 25 airports planned under the national monetisation plan.

(The writer is CEO and Director at CAPA India)

## Major Fleet Expansions and Infrastructure Investments

- ✚ Fleet expansion

## Daily News Analysis

- Since 2022, significant developments in India's airline sector include Air India's order for a record 470 aircraft and IndiGo's rapid growth with a fleet of about 370 aircraft and more than 980 on order.
- This could double the country's fleet of nearly 700 aircraft by 2030.
- It took the Indian industry about 90 years from the time of the first commercial flight to reach a fleet size of 700 aircraft.
- But the rate of growth is so strong that carriers could add a further 600-700 aircraft in just the next 5-7 years.








### **Robust airline system and growth in traffic**

- Air India's \$6.5 billion investment and IndiGo's record \$1 billion profitability in FY2024 indicate a robust airline system.
- Despite supply-chain challenges, domestic and international traffic grew by 13% and 22%, respectively, in FY2024.

### **Efforts to enhance airport infrastructure**

- To support this expansion, India is enhancing airport infrastructure with a \$11 billion investment pipeline.
- In the National Capital Region, Delhi International Airport will expand capacity to 130-140 million passengers annually, complemented by the new Noida International Airport opening in April 2025 with a 70 million capacity.
- The Mumbai Metropolitan Region will also have a dual airport system, handling 145 million passengers annually.
- The Adani Group is expanding capacity at six non-metro airports, and the Airports Authority of India is investing \$4 billion to enhance non-metro capacity.
- Greenfield airports are also planned for Chennai and Pune.

### **Regulatory frameworks for the aviation sector**

-  National Civil Aviation Policy (NCAP) 2016 guides the Indian aviation sector.
-  Aviation policy is broad-based in India and is dealt with by the Ministry of Civil Aviation under the legal framework of the Aircraft Act 1934, and Aircraft Rules 1937.
-  The DGCA is the statutory regulatory authority which comes in for issues related to safety, licensing, airworthiness, and so on.
-  Airports Authority of India (AAI) manages and operates airports and provides air traffic management services.
-  Bureau of Civil Aviation Security (BCAS) is responsible for laying down standards and measures for the security of civil flights and airports.
-  Airport Economic Regulatory Authority (AERA) regulates tariffs and other charges for aeronautical services provided at major airports.
-  It also monitors performance standards of such services.



## Daily News Analysis

- + Regional Connectivity Scheme (RCS) - UDAN (Ude Desh ka Aam Naagrik) aims to make air travel affordable and widespread by enhancing regional air connectivity through financial incentives, subsidies, and infrastructural support.

### Way forward

- + **Provide incentives for investment in skilling, training, and education**
  - The rapid growth of India's aviation industry could lead to skill shortages, particularly among technical staff like pilots, maintenance engineers, and technicians.
  - The new DGCA duty and rest norms for pilots could increase pilot demand by 15%.
  - There are also shortages in air-traffic controllers and security personnel.
  - Thus, the Budget should provide incentives for investment in skilling, training, and education.
- + **Restructuring of institutions**
  - Restructuring the Directorate General of Civil Aviation and the Bureau of Civil Aviation Security is necessary to address challenges from technological disruptions and environmental issues.
  - Corporatising air traffic control by hiving off Air Navigation Services from AAI could improve capital access for system investments.
- + **Rationalisation of taxes**
  - The Budget should consider rationalising taxes, which currently account for nearly 20% of an airline's quarterly revenue, including state levies on aviation turbine fuel.

## UPSC Prelims Practice Question

**Ques : Which of the following statements with regard to the constitution of Finance Commission is/are correct?**

1. The Government of India has recently constituted the Sixteenth Finance Commission under the Chairmanship of Dr. Arvind Panagariya.
2. Finance Commission is constituted in pursuance to Article 263 of the Constitution of India.

**Select the answer using the code given below:**

- a) 1 only
- b) 2 only
- c) Both 1 and 2
- d) None of the above

**Ans : d)**

## Daily News Analysis

### Page : 07 : Species In News : World's Rarest Whale

A spade-toothed whale, the world's rarest and never before seen alive, washed up on a New Zealand beach, potentially providing vital scientific insights.

- Identified by its distinctive features, this specimen could enable detailed study and genetic analysis, offering new knowledge about their habitat and behaviour in the southern Pacific Ocean.

#### About the news:

- A Spade-toothed whales, the world's rarest, have never been sighted alive. Their existence and habits in the southern Pacific Ocean remain largely unknown.
- A five-meter-long beaked whale washed up on a South Island beach in New Zealand is believed to be a spade-toothed whale, identified by its physical characteristics.
- This discovery could provide crucial scientific insights as it might be the first specimen suitable for dissection and study.
- Previous sightings of spade-toothed whales were limited to six specimens, with those found in New Zealand already buried before DNA testing.
- The whale has been preserved for genetic testing, which could take months to confirm its identity.
- New Zealand's Indigenous Maori tribes will be involved in the examination, considering whales as culturally significant treasures.
- The whales' deep-sea habits make research challenging, and their precise habitat in the vast ocean remains elusive.
- The first spade-toothed whale bones were found in 1872 on New Zealand's Pitt Island. Another discovery was made at an offshore island in the 1950s, and the bones of a third were found on Chile's Robinson Crusoe Island in 1986.
- DNA sequencing in 2002 proved that all three specimens were of the same species — and that it was one distinct from other beaked whales. Researchers studying the mammal couldn't confirm if the species went extinct.



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*

Associated Press

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 deepest ocean trenches, Hendriks said.

"It's very hard to do research on marine mammals if you don't see them at sea," she said. "It's a bit of a needle in a haystack. You don't know where to look." The conservation agency said the genetic testing to confirm the whale's identification could take months.

It took "many years and a mammoth amount of effort by researchers and local people" to identify the "incredibly cryptic" mammals, Kirsten Young, a senior lecturer at the University of Exeter who has studied spade-toothed whales, said in emailed remarks.

The fresh discovery "makes me wonder — how many are out in the deep ocean and how do they live?" Young said.

## Daily News Analysis

Then in 2010, two, whole, spade-toothed whales, both dead, washed up on a New Zealand beach.

### UPSC Prelims PYQ : 2019

**Ques : Consider the following pairs:**

Wildlife		Naturally found in
1.	Blue-finned Mahseer	Cauvery River
2.	Irrawaddy Dolphin	Chambal River
3.	Rusty-spotted Cat	Eastern Ghats

**Which of the pairs given correctly matched?**

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

**Ans: (c)**



## Page : 08 Editorial Analysis

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

**R**elations 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

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.

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

### **GS Paper 02 : International Relations – Bilateral Relations**

**PYQ: (UPSC CSE (M) GS-1 2018)** Border management is a complex task due to difficult terrain and hostile relations with some countries. Elucidate the challenges and strategies for effective border management. (150 w/10m)

**Practice Question :** Analyse the factors contributing to the recent strain in India-Nepal relations and suggest measures to enhance bilateral cooperation and stability.

(150 w/10m)

### **Context**

- ✚ India-Nepal relations have faced significant challenges since 2015 due to constitutional disagreements and a blockade by India.
- ✚ The new leadership in both countries presents an opportunity to reset and stabilise relations, emphasising mutual respect, non-interference, and regional cooperation for greater stability and prosperity.

### **Background of India-Nepal Relations**

- ✚ Relations between India and Nepal have been strained since 2015 when both countries had different prime ministers.
- ✚ The adoption of Nepal's new Constitution in 2015, which India wanted amended, sparked bilateral turbulence.
- ✚ Despite initial assurances to India, Nepal promulgated the Constitution without amendments, leading to a significant downturn in relations.

### **Blockade and its Aftermath**

- ✚ India imposed a six-month blockade on Nepal, ostensibly blaming Madhesi activists, causing significant hardship and fostering long-lasting resentment in Nepal.
- ✚ Nepal's leadership reacted by signing ten agreements with China covering trade, transit, power, and transport.
- ✚ The blockade's aftermath saw Nepal's prime minister make provocative statements about historical and national identity, further straining relations.

### **Political and Diplomatic Dynamics**

## Daily News Analysis

- ✚ Despite meetings between the prime ministers post-blockade, tensions persisted with provocative suggestions from Nepal about India's national symbols.
- ✚ India's 2019 political map update, which included disputed territories, led Nepal to amend its Constitution to assert its claims over these areas.
- ✚ India's increasing involvement in Nepali governance and politics, including fielding advocates for its ideological positions, further complicated relations.

### Challenges and Opportunities

- ✚ With India's prime minister starting his third term and Nepal's new leadership, there is an opportunity to reset and stabilise relations.
- ✚ The Indian government may need to revisit its approach to Nepal, emphasising policy corrections and mutual respect.
- ✚ The principle of non-interference, as part of the Panchsheel doctrine, should guide India's engagement with Nepal.

### Importance of Non-Interference

- ✚ India's relentless engagement in Nepal's politics contradicts the Panchsheel doctrine's principle of non-interference.
- ✚ A hands-off policy could lead to a politically stable and economically energised Nepal, benefiting both nations.
- ✚ Nepal is a significant remittance-sending country to India, supporting livelihoods in some of India's poorest regions, highlighting the mutual benefits of a stable relationship.

### Internal Dynamics in Nepal

- ✚ The political chaos in Nepal has weakened its ability to engage on equal terms with India.
- ✚ Previous Nepali leaders have had varied success in maintaining balanced relations with India.
- ✚ The recently concluded prime ministerial term saw significant concessions to India, including agreements that potentially compromised Nepal's sovereignty.

### Hydropower and Economic Issues

- ✚ Nepal's recent agreements with India, particularly in hydropower, have sparked controversy due to restrictions favouring India.



## Daily News Analysis

- ✚ The Indian Embassy in Kathmandu has been given unique privileges not afforded to other embassies, raising concerns about unequal treatment.
- ✚ Delinking Nepal's hydropower from its water resources to bypass parliamentary ratification highlights the complexities of bilateral agreements.

### Regional Cooperation

- ✚ The new leadership in Nepal has the opportunity to advocate for reviving the South Asian Association for Regional Cooperation, benefiting the entire region.
- ✚ India's policymakers need to recognize Nepal's non-negotiable friendship with China, which does not preclude strong ties with India.
- ✚ Balancing these relationships is crucial for regional stability and cooperation.

### Historical and Cultural Context

- ✚ The historic and cultural ties between India and Nepal should be leveraged to improve relations.
- ✚ Misconceptions about Nepal in Indian academia and public opinion need to be addressed through better communication and outreach.
- ✚ Nepal's open border with India, often seen as a security concern, can be a model for future peaceful South Asian integration.

### Future Prospects

- ✚ Both nations need to move beyond historical grievances and power dynamics to forge a mutually beneficial relationship.
- ✚ Nepal's new leadership must assert its sovereignty and engage with India on equal terms.
- ✚ India's policymakers should adopt a more respectful and cooperative approach, recognizing Nepal as a distinct and important neighbour.

### Conclusion

- ✚ The potential for a positive and stable relationship between India and Nepal exists, contingent on mutual respect and non-interference.
- ✚ By addressing outstanding bilateral issues and fostering regional cooperation, both countries can achieve greater stability and prosperity.
- ✚ Embracing a more balanced and respectful relationship will benefit not only India and Nepal but also the broader South Asian region.

### Special Relations Between India-Nepal

#### + Defense Cooperation

- India has been assisting the Nepal Army in its modernization efforts by providing equipment and training.
- The two countries also engage in joint military exercises and other defense-related activities.
- The Gorkha regiments of the Indian Army recruit soldiers from Nepal and currently, about 32,000 Gorkha soldiers from Nepal are serving in the Indian Army.

#### + Disaster Management

- When a devastating earthquake struck Nepal in 2015, India provided swift assistance by sending rescue teams, relief materials and medical support.
- The total relief assistance from India exceeded \$67 million.
- India also announced a post-earthquake reconstruction package of \$1 billion, including grants and concessional loans, during an international conference on Nepal's reconstruction.

#### + Infrastructure Development

- India has been actively involved in supporting Nepal's development by providing assistance in various sectors such as infrastructure, health, water resources, education and rural development.
- They have collaborated on the development of border infrastructure, including roads and rail links.
- Indian investment in Nepal is significant, with Indian companies being major investors in various sectors.

#### + Water Resources Cooperation

- Cooperation in water resources, energy and trade is also important in the bilateral relationship.
- India-Nepal has agreements for power exchange and transmission and India currently supplies around 600 MW of power to Nepal.
- They have also established mechanisms to discuss issues related to water resources and hydropower cooperation.

#### + Education

- India's contribution to human resource development in Nepal is noteworthy, with thousands of scholarships and seats provided annually to Nepalese nationals for various courses in India-Nepal.

#### + Cultural Exchange

## Daily News Analysis

- Cultural exchanges and initiatives to promote people-to-people contacts are an integral part of the bilateral relationship. Several agreements have been signed between Indian and Nepalese cultural and media organizations.

### Challenges in India-Nepal Relationship

- + **Issues with Peace and Friendship Treaty:** The 1950 Treaty of Peace and Friendship between India and Nepal guaranteed Nepali citizens free movement across the border and employment opportunities in India. However, some perceive this treaty as unequal and imposed by India.
- + **Territorial Disputes:** Certain areas along the India-Nepal boundary, such as Kalapani, have remained unresolved. Nepal claims these territories as part of its own, while India inherited them from British colonial rule.
- + **Chinese Interference:** In recent years, Nepal has been moving away from India's influence and China has been stepping in with investments, aid and loans. China's involvement in Nepal's infrastructure projects through its Belt and Road Initiative poses a threat to Nepal's role as a buffer state between India and China.
- + **Security Threat:** The porous and poorly guarded border between India and Nepal allows terrorist groups to exploit it for smuggling weapons, ammunition, trained members and fake currency, which poses a significant security risk to India.
- + **Trust Deficit:** The trust between India and Nepal has weakened over time due to India's slow implementation of projects. Some Nepalese ethnic groups feel that India interferes too much in Nepal's politics and undermines their political independence, leading to a dislike for India.

### Way Forward

- + **Resolving Water Issues:** International law on transboundary water disputes can guide diplomatic talks to resolve the issue.
- + **Investments:** India should increase its investments in Nepal and focus on completing projects more quickly. Projects that benefit the local people will help create a positive image of India.
- + **Countering China:** Given China's influence, the government should quickly address challenges hindering economic cooperation and foster growth for both countries.
- + **Manage Border Dispute:** Both parties should explore realistic solutions. The successful boundary dispute resolution between India and Bangladesh can serve as a model for the way forward.



## Mapping : The Indus River System

It originates from a glacier near Bokhar Chu in the Tibetan region at an altitude of 4,164 m in the Kailash Mountain range near the Mansarovar Lake.



## Daily News Analysis

### Left and Right bank tributaries

- ✚ Zaskar river, Suru river, Soan river, Jhelum River, Chenab River, Ravi River, Beas river, Satluj river, Panjnad river are its major **left-bank tributaries**.
- ✚ Shyok River, Gilgit river, Hunza river, Swat river, Kunnar river, Kurram river, Gomai River, and Kabul river are its major **right-bank tributaries**.

### Shyok River

- ✚ Rising from the Karakoram Range, it flows through the Northern Ladakh region in J&K
- ✚ It has a length of about 550km.
- ✚ A tributary of the Indus River, it originates from the Rimo Glacier.
- ✚ The river widens at the confluence with the Nubra River
- ✚ Shyok River marks the south-eastern fringe of the Karakoram ranges by forming a V-shaped bend around it.

### Nubra River

- ✚ It is the main tributary of the Shyok River.
- ✚ It originated from the Nubra Glacier, in a depression to the east of Saltoro Kangri Peak
- ✚ Nubra River meanders towards the southeast to join the Shyok River downstream of Shyok Valley at the base of the Ladakh range
- ✚ Nubra Valley, situated at an altitude of 3048m, is formed out of the Nubra River
- ✚ The catchment area is devoid of vegetation and human habitation due to high elevation and lack of rainfall.

### Shigar River

- ✚ It is a small right-bank tributary of the Indus River in its course through the Ladakh region of J&K
- ✚ It rises from the Hispar Glacier.
- ✚ It joins Indus at Skardu.
- ✚ The Shigar River descends down a very steep gradient
- ✚ Its entire catchment has been influenced by the action of glaciers.

### Gilgit River

- ✚ It is an important right-bank tributary of the Indus River in its course through the Ladakh region of J&K

## Daily News Analysis

- ✚ It originates from a glacier near the extreme northwestern boundary of the Himalayas
- ✚ The entire catchment area of the Gilgit River is bleak and desolate
- ✚ Bunji is the main human settlement along the river
- ✚ Ghizar and Hunza are the major right and left bank tributaries respectively.

### Hunza River

- ✚ It is an important left-bank tributary of the Gilgit River
- ✚ It rises from a glacier north of the Karakoram Range in the northwestern part of J&K
- ✚ It flows southeast and cuts across the Karakoram Range through a spectacular gorge
- ✚ Downstream, the Hunza River follows a southwesterly direction in its middle course
- ✚ Then it cuts across an offshoot of the Karakoram range and changes course to the southeast in its lower course before merging with the Gilgit a little upstream of Bunji where the latter river empties itself into the Indus.

### Zaskar River

- ✚ It is one of the important left blank tributaries of the Indus
- ✚ Human settlements are sparse.

### Chenab River

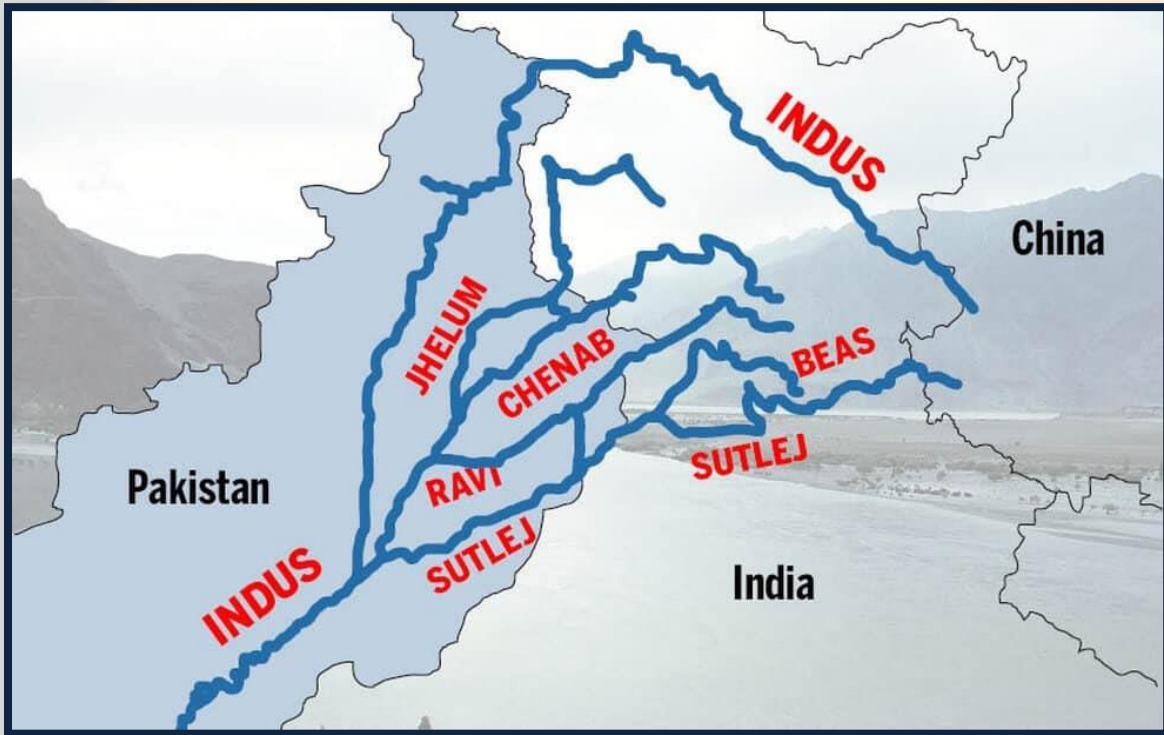
- ✚ The Chenab originates from near the Bara Lacha Pass in the Lahul-Spiti part of the Zaskar Range.
- ✚ Chenab river is formed by the confluence of the Chandra and Bhaga rivers at Tandi located in the upper Himalayas in the Lahul and Spiti District of Himachal Pradesh
- ✚ In its upper reaches, it is also known as the Chandrabhaga
- ✚ It flows through the Jammu region of J&K into the plains of Punjab in Pakistan
- ✚ The waters of the Chenab are allocated to Pakistan under the terms of the Indus Water Treaty
- ✚ Baghliar Dam has been constructed on this river
- ✚ The river is crossed in J&K by the world's highest railways bridge name Chenab Bridge.

### Jhelum River

- ✚ It is a tributary of the Chenab River and has a total length of 813km
- ✚ The river Jhelum rises from a spring at Verinag situated at the foot of the Pir Panjal in the southeastern part of the valley of Kashmir in India.
- ✚ The Kishenganga (Neelum) River, the largest tributary of Jhelum, joins it.

## Daily News Analysis

- ✚ The Chenab merges with the Sutlej to form the Panjnad River which joins the Indus River at Mithankot
- ✚ The waters of the Jhelum are allocated to Pakistan under the terms of the Indus Waters Treaty
- ✚ It ends in a confluence with the Chenab in Pakistan.



### Kishanganga River

- ✚ It originates at Drass in the Kargil district of J&K
- ✚ The Neelum River enters Pakistan from India near the Line of Control and then runs west till it meets the Jhelum River
- ✚ It is also called as Neelum River (Neelum) either due to its sky cold water or due to the precious stone "ruby (Neelum)" that is found in this area
- ✚ It is famous for ice-cold water and trout fish.

### Ravi River

- ✚ The Ravi River originates Dhauladhar range of the Himalayas in the Chamba district of HP. Ravi has its source in Kullu hills near the Rohtang Pass in Himachal Pradesh.
- ✚ It follows a northwesterly course and is a perennial river having a total length of about 720km
- ✚ The waters of the Ravi River are allocated to India under the Indus Waters Treaty



## Daily News Analysis

- ✚ The major multipurpose project built on the river is the Ranjit Sagar Dam (Thein dam as it is located in Theinvillage)
- ✚ Chamba town is situated on the right bank of the river.
- ✚ The right bank tributaries of the Ravi are the Budhil, Tundahan Beljedi, Saho and Siul; and its left bank tributary worth mentioning is Chirchind Nala.
- ✚ The Ujh river is a tributary of the Ravi River that flows through the Kathua district in the Indian union territory of Jammu and Kashmir.
- ✚ Ujh Multipurpose Project is planned to be constructed in Kathua District of Jammu & Kashmir on the River Ujh.
- ✚ Shahpurkandi Dam project is located on the Ravi River in Pathankot district, Punjab, downstream from the existing Ranjit Sagar Dam.



### Sutlej River

- ✚ The Sutlej is sometimes known as the Red River.
- ✚ It rises from beyond the Indian borders in the southern slopes of the Kailash Mountain near Mansarovar Lake from Rakas Lake.
- ✚ It enters HP at Shipki La and flows in the South-westerly direction through Kinnaur, Shimla, Kullu, Solan, Mandi, and Bilaspur districts.

## Daily News Analysis

- ✚ It leaves HP to enter the plains of Punjab at Bhakra, where the world's highest gravity dam- Bhakra Nangal Dam, has been constructed on this river.
- ✚ The waters of the Sutlej are allocated to India under the Indus Water Treaty b/w India and Pakistan and is mainly used for power generation and irrigation of many large canals draw water from it
- ✚ Across the river, there are many hydroelectric and irrigation projects such as the Kol Dam, Nathpa Jhakri project.

### Beas River

- ✚ Beas River, an important river of the Indus River System, emerges from Rohtang pass in HP
- ✚ The river before entering Pakistan merges with the Sutlej River at Hari-Ke-Pattan in Punjab
- ✚ The total length of this river is 460km and the river covers 256km through HP
- ✚ The tourist resorts of Manali is situated on the right banks of the River Beas.