

[www.vishnuias.com](http://www.vishnuias.com)



**JUNE 2022**

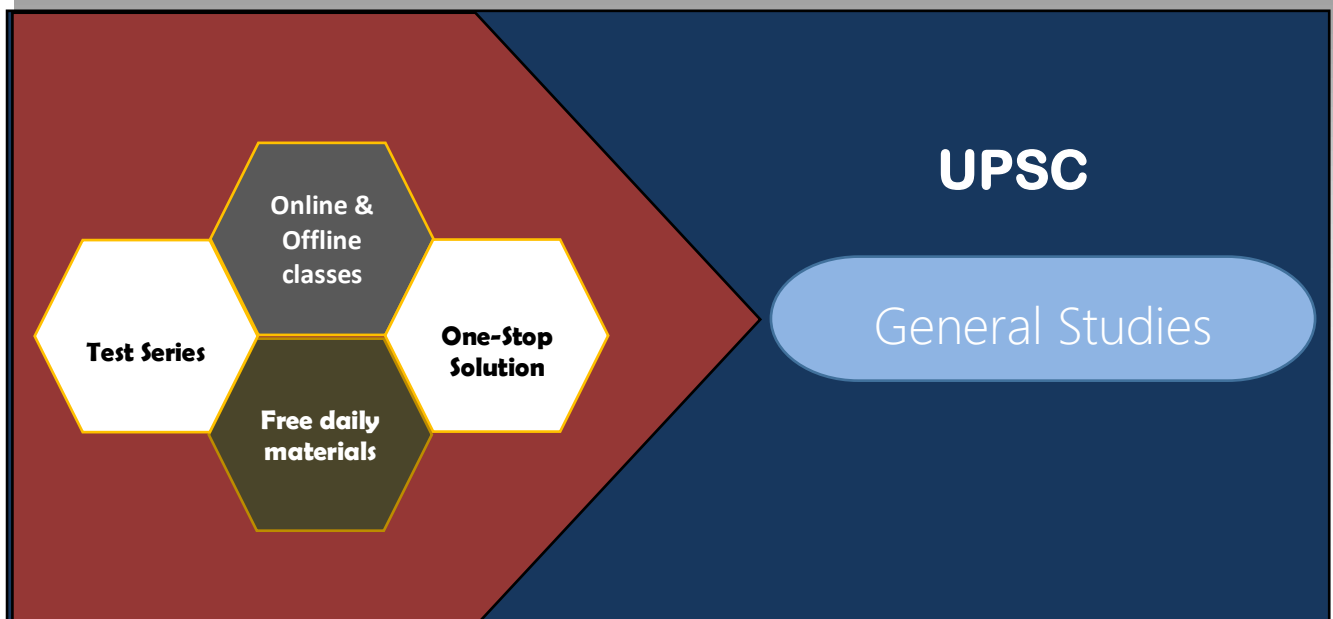
**Monthly current affairs magazine**

# **CURRENT AFFAIRS**

A MAGAZINE FOR CIVIL SERVICES PREPARATION

**JOIN OUR TELEGRAM:** <https://t.me/vishnuiasmentor>

**Articles of the day  
THE HINDU & INDIAN EXPRESS**



## Contents

### **GS 1 : Heritage, culture ,Geography of the World and Society**

1. Sant Kabir: the extraordinary poet-saint of the Bhakti Movement
2. Ancient sculptures recovered from Australia, US
3. Environmental Performance Index (EPI), 2022
4. A small start that went on to change the lives of women

### **GS 2 : Polity, Governance, International Relations**

1. A judicial course that calls for introspection
2. Sedition Law
3. Questioning the Safety of Aadhaar
4. India Bangladesh Relations
5. The sedition law must go
6. The Digital India transformation
7. Non-Resident Indians (NRIs)
8. China's growing footprint in the Pacific Islands
9. Issues with Frivolous PIL Petitions
10. Accessible India Campaign
11. What are Mutual Legal Assistance Treaties (MLATs)?
12. BIMSTEC
13. Myanmar's internal situation shouldn't hobble India's 'Act East' policy
14. India-Pakistan ties and the mirror of 2019
15. ASHA Program
16. British PM faces No-Confidence Vote
17. India needs a forward-looking strategy on Pakistan
18. Implications of GST Council ruling
19. India and Vietnam sign Mutual Logistics Agreement
20. Challenges in dealing with Indo-Pacific
21. Healthcare in India is ailing. Here is how to fix it
22. Indus Waters Treaty (IWT): An enduring agreement bridging India-Pakistan ties
23. What India must do to protect its ties with the Islamic world
24. What is National Intelligence Grid (NATGRID)?
25. CoWIN as a repurposed digital platform
26. E-Vidhan System for Paperless Legislation

27. Lessons from the Ukraine crisis price shock
28. Child Marriage in India
29. ASI Act to be made more flexible
30. BIMSTEC Technology Transfer Facility (TTF)
31. The fragile state of nuclear disarmament
32. Indian interests at the WTO Ministerial Conference
33. The role of caste in economic transformation
34. Pakistan's economic muddling and the IMF challenge
35. The advent of 'app-solute' chaos in NREGA

## **GS 3 : Economy, Science and Technology, Environment**

1. What is Liquid Nano Urea?
2. Astra MK-I Air-to-Air Missile: Features, strategic significance
3. For India, a lesson in food security from Sri Lanka
4. Gig Workers' Rights
5. GST Council must uphold fiscal federalism
6. UAPA
7. International Liquid Mirror Telescope (ILMT)
8. Posidonia Australis: World's Largest Plant
9. E-Waste Recycling in India
10. Keep ESZ of 1 Km around Forests: SC
11. What is D2M Technology?
12. Chinese astronauts enter Tiangong Space Station
13. What are eVTOL Aircrafts?
14. World's first Fishing Cat Census done in Chilika
15. How to keep inflation under control
16. What are Bad Banks?
17. Challenges in global growth recovery
18. Understanding SEBI Rules on Passive Funds
19. What is a Not-for-Profit Company?
20. Next-Generation Corvettes for Indian Navy
21. Dostarlimab: The New Wonder Cancer Drug
22. RBI plans to link Credit Cards with UPI
23. Monetary tightening and its impact on growth
24. Indian Patent Regime vs. US norms
25. What are Fast Radio Bursts (FRB)?
26. Tendu Leaves Collection in India
27. What is TVS-2M Nuclear Fuel?

28. What is IN-SPACE?
29. Issues with the Environmental Performance Index (EPI)
30. 21 Years of BrahMos Missile
31. Coal Shortages in India
32. India is expanding its nuclear arsenal: SIPRI
33. India's commitment for de-nuclearization
34. What is Web 5.0?
35. Rising global food prices: Causes and Solution



## GS 1 : Heritage, culture ,Geography of the World and Society

### 1. Sant Kabir: the extraordinary poet-saint of the Bhakti Movement

President Kovind inaugurated the Sant Kabir Academy and Research Centre Swadesh Darshan Yojana and paid tribute to the Bhakti saint, Kabir at Maghar, his resting place in Uttar Pradesh.

#### Kabir and the Bhakti Movement

- The Bhakti movement, which began in the 7th century in South India, had begun to spread across north India in the 14th and the 15th centuries.
- The movement was characterized by popular poet-saints who sang devotional songs to God in vernacular languages.
- Most of the preaching were meant for abolishing the Varna system and promoting Hindu-Muslim unity.
- They emphasized an intense emotional attachment with God.

#### Who was Sant Kabir?

- One school within the Bhakti movement was the **Nirguni tradition** and Sant Kabir was a prominent member of it.
- In this tradition, **God was understood to be a universal and formless being.**
- Many of the saints of the Bhakti movement came from the ranks of the lower to middle artisanal classes.
- Kabir was an alleged 'low caste' weaver (Julaha), Raidas was a leather worker and Dadu a cotton carder.
- Their radical dissent against orthodoxy and rejection of caste made these poet-saints extremely popular among the masses and their ideology of egalitarianism spread across India.

#### His life

- He was born in Varanasi and lived between the years 1398 and 1448, or till the year 1518 according to popular belief.
- He was from a community of 'lower caste' **weavers** of the Julaha caste, a group that had **recently converted to Islam.**

- He learned the art of weaving, likely studied meditative and devotional practices under the guidance of a Hindu guru and grew to become an eminent teacher and poet-singer.
- Kabir's beliefs were deeply radical, and he was known for his intense and outspoken voice which he used to attack the dominant religions and entrenched caste systems of the time.
- He **composed his verses orally** and is generally assumed to be illiterate.

### His literary works

- Kabir's compositions can be classified into three literary forms – **dohas** (short two liners), **ramanas** (rhymed 4 liners), sung compositions of varying length, known as **padas** (verses) and **sabdas** (words).
- There are myriad legendary accounts on the other hand, for which there exists less of a factual historical basis.

### Kabir's critique of religion and caste

- Kabir is in modern times portrayed as a figure that synthesized Islam and Hinduism.
- While he did borrow elements from different traditions, he very forcefully proclaimed his independence from them.
- He did not only target the rituals and practices of both Hinduism and Islam, but also dismissed the sacred authority of their religious books, the Vedas and the Quran.
- He even combined Allah and Ram in his poems.
- He sought to eradicate caste distinctions and attempted to create an egalitarian society, by stressing the notion that a Bhakt (devotee) was neither a Brahmin nor an 'untouchable' but just a Bhakt.

### Kabir's legacy

- Kabir's own humble origins and his radical message of egalitarianism fostered a community of his followers called the Kabir Panth.
- A sect in northern and central India, many of their members are from the Dalit community.
- All regard Kabir as their guru and treat the **Bijak as their holy scripture**.
- The **Bijak contains works attributed to Kabir** and is argued by historians to have been written in the 17th century.
- Several of Kabir's verses and songs form a **vital part of the Guru Granth Sahib**.

## 2. Ancient sculptures recovered from Australia, US

Ten antiquities (sculptures) retrieved from Australia and the United States were handed over to the Government of Tamil Nadu.

Some of the returned antiquities, and how they had gone missing:

### (1) Dvarapala:

- Retrieved in 2020 from Australia, this stone sculpture belongs to the Vijayanagar dynasty dating to the 15th-16th century.
- He is holding a gada in one hand and has another leg raised up to the level of his knee.
- The sculpture was burgled from Moondreeswaramudayar Temple, Tirunelveli in 1994.

### (2) Nataraja:

- Retrieved in 2021 from the US, this image of Nataraja, a depiction of Shiva, in his divine cosmic dance form, is in tribhanga posture, standing on the lotus pedestal.
- It is dateable to the 11th-12th century. Possibly, ananda tandava or the Dance of Bliss is portrayed here.
- The sculpture was burgled from the strong room of Punnainallur Arulmigu Mariyamman Temple, Thanjavur, in 2018.

### (3) Kankalamurti:

- Retrieved in 2021 from the US, Kankalamurti is depicted as a fearsome aspect of Lord Shiva and Bhairava.
- The sculpture is four-armed, holding ayudhas such as damaru and trishula in the upper hands and a bowl and a trefoil shaped object, as a treat for the playful fawn, in the lower right hand.
- The idol is dateable to the 12th-13th century, and was stolen from Narasinganadhar Swamy Temple, Tirunelveli in 1985.

### (4) Nandikeshvara:

- Retrieved in 2021 from the US, this bronze image of Nandikeshvara is dateable to the 13th century.
- It is shown standing in tribhanga posture with folded arms, holding an axe and a fawn in the upper arms, with his forearms in namaskara mudra.
- This sculpture was stolen from Narasinganadhar Swamy Temple, Tirunelveli, in 1985.

**(5) Four-armed Vishnu:**

- Retrieved in 2021 from the US, dateable to the 11th century, and belonging to the later Chola period.
- The sculpture has Lord Vishnu standing on a padma pedestal holding attributes such as shankha and chakra in two hands; while the lower right hand is in abhaya mudra.
- It was stolen from Arulmigu Varadharaja Perumal Temple, Ariyalur, in 2008.

**(6) Goddess Parvati:**

- Retrieved in 2021 from the US, the image depicts a Chola-period sculpture dateable to the 11th century.
- She is shown holding a lotus in the left hand whereas the right is hanging down near her kati.
- This sculpture was also stolen from Arulmigu Varadharaja Perumal Temple, Ariyalur in 2008.

**(7) Standing child Sambandar:**

- Retrieved in 2022 from Australia. Sambandar, the popular 7th-century child saint, is one of the Muvar, the three principal saints of South India.
- The sculpture is dateable to the 11th century.
- The legend goes that after receiving a bowl of milk from Goddess Uma, the infant Sambandar devoted his life to composing hymns in praise of Lord Shiva.
- The sculpture displays the saint's childlike quality, while also empowering him with the maturity and authority of a spiritual leader.
- It was stolen from Sayavaneeswarar Temple, Nagapattinam, between 1965 and 1975.

**3. Environmental Performance Index (EPI), 2022**

India has objected to a report, called the EPI, 2022, that places the country last (along with Nigeria) on a list of 180 countries on managing climate change, environmental health, and ecosystem vitality.

**Environmental Performance Index**

- The report is prepared by researchers at the Yale and Columbia universities.



- It provides a data-driven summary of the state of sustainability around the world.
- Using 40 performance indicators across 11 issue categories, the EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality.
- These indicators provide a gauge at a national scale of how close countries are to established environmental policy targets.
- The EPI offers a scorecard that highlights leaders and laggards in environmental performance and provides practical guidance for countries that aspire to move toward a sustainable future.

### **Why the report is inherently biased?**

- The US placed itself at the 20th spot of the 22 wealthy democracies in the global west and 43rd overall.
- The relatively low ranking has put all blame on the rollback policies during the Trump administration.
- It goes on to preach that developing countries do not have to sacrifice sustainability for economic security.

## **4. A small start that went on to change the lives of women**

All Women Police Stations in Tamil Nadu.

### **Background**

- In 1973, the first-ever all-women's wing in the Chennai City Police was started.
- In 1992, the Tamil Nadu Government initiated the first All Women Police Station (AWPS) at Chennai's Thousand Lights police station, which was managed by an inspector, three sub-inspectors, six head constables and 24 constables.
- The objective was to encourage women to report cases of crime and harassment, which they would find difficult to narrate to a male officer.

### **The impact of including women in Police Stations and setting up AWPS**

- This has helped to overcome the stigma of police stations not being a good place for women to visit.
- The inclusion of women in the police departments has also encouraged women to come forward to seek redress for their complaints.
  - The impact is seen more in cases of crime against women and children being reported.
- It has also helped raise awareness about various existing laws for women.
  - The personnel also raise awareness among students and educate them to report sexual abuse or inappropriate behaviour.
- At present, Tamil Nadu has 222 AWPSs and this model has been replicated in various other parts of the country.
- In 2021, about 75000 individuals, mostly women, had given complaints (including matrimonial disputes) at the AWPS in Tamil Nadu and over 72,428 complainants were redressed through counselling which would have been prolonged in the Courts.
- The women personnel play a significant role in handling serious crimes against women and children, such as rape, molestation, abduction, dowry deaths, cruelty by husband/relatives, sexual harassment cases booked under the Indian Penal Code (IPC), the Prohibition of Women Harassment Acts and the POCSO Act.

## GS 2 : Polity, Governance, International Relations

### 1. A judicial course that calls for introspection

The recent decision of the Supreme Court of India in the case of A.G. Perarivalan has stirred up a hornet's nest.

#### Use of Article 142 to grant pardon

- The Court has treaded the extraordinary constitutional route under **Article 142**.
- The Bench decided to exercise the power of grant of pardon, remission et al., **exclusively conferred on the President of India** and State Governors under Articles 72 and 161.
- **Against the separation of power:** Against the background of separation of powers viz. Parliament/Legislature, Executive and Judiciary, whether the

course adopted by the Bench to do expedient justice is constitutional calls for introspection.

### Evaluating the constitutionality of decision

- The power under Article 161 is exercisable in relation to matters to which the executive power of the state extends.
- **Discretionary power under Article 161:** Article 161 consciously **provides a 'discretion' to the Governor** in taking a final call, even if it was not wide enough to overrule the advice, but it certainly provides latitude to send back any resolution for reconsideration, if, in his opinion, the resolution conflicted with constitutional ends.
- In Sriharan's case (2016 (7) SCC P.1), one of the references placed for consideration was whether the term 'consultation' stipulated in Section 435 Cr.P.C. implies 'concurrence'.
- It was held that the word '**consultation**' means '**concurrence**' of the Central government.
- The Constitution Bench highlighted that there are situations where consideration of remission would have trans-border ramifications and wherever a central agency was involved, the opinion of the Central government must prevail.
- Basing its conclusion on the legal position that the subject matter (Section 302 in the Indian Penal Code) murder, falls within **Lists II and III (State and Concurrent lists) of the Seventh Schedule** to the Constitution, the learned judges concluded that the **State was fully empowered** to take a call and recommend remission in this case.
- If it is a simple case of being a **Section 302 crime**, the reason for finding **fault with the Governor's decision to forward the recommendation to the President** may be constitutionally correct.
- But the larger controversy as to whether the Governor in his **exercise of power under Article 161** is competent at all, to grant pardon or remission in respect of the offences committed by the convicts under the Arms Act, 1959, the Explosive Substances Act, 1908, the Passports Act, 1967, the Foreigners Act, 1946, etc., besides Section 302, is not certain.
- According to the decision, it is a **simple murder attracting Section 302 of the IPC** and therefore the Governor's decision to forward the recommendation to the President is against the letter and spirit of Article 161 – meaning it is against the spirit of federalism envisaged in the Constitution.
- **Constitutionality use of Article 142:** There are momentous issues that are flagged on the exercise of the power of remission under Article 142, by the Supreme Court in the present factual context.

- The first is whether Article 142 could be invoked by the Court in the circumstances of the case when the Constitution conferred express power on the Governor alone, for grant of pardon, remission, etc., under Article 161.

### Way forward

- **Deeper judicial examination:** Whether what the State government could not achieve directly by invoking Sections 432 and 433 of Cr.P.C, without **concurrence of Centre** could be allowed to take a contrived route vide Article 161 and achieve its objectives is a pertinent issue.
- This aspect requires deeper judicial examination for the sake of constitutional clarity.
- **Timeframe for the Governor:** The Constitution does not lay down any timeframe for the Governor to act on the advice of the Council of Ministers.
- In any event, even if the delay was constitutionally inexcusable or was vulnerable to challenge, the final arbiter of the Constitution (Article 245) could not have trumped Article 161 with Article 142, which is constitutionally jarring.

### Conclusion

To portray the remission as to what it was not in the State is a sad fallout the lawlords on the pulpit may not have bargained for. And on the constitutional plane, this verdict deserves a relook, even a review, as it stands on wobbly foundations built with creaky credence.

## 2. Sedition Law

The Supreme Court suspended pending criminal trials and court proceedings under Section 124A (sedition) of the Indian Penal Code, while allowing the Union of India to reconsider the British-era law.

### What did the SC say?

- All pending trials, appeals and proceedings with respect to the charge framed under Section 124A of the IPC be kept in temporary suspension.
- The court also restrained centre and states from registering FIRs, continuing investigations or take coercive measures under Section 124A.

### What is the Sedition Law?

- Section 124A of the Indian Penal Code lays down the punishment for sedition. The IPC was enacted in 1860, under the British Raj.

- The then British government in India feared that religious preachers on the Indian subcontinent would wage a war against the government.
- Particularly after the successful suppression of the Wahabi/Waliullah Movement by the British, the need was felt for such law.
- Throughout the Raj, this section was used to suppress activists in favor of national independence, including Tilak and Mahatma Gandhi, both of whom were found guilty and imprisoned.

### What is Sedition?

- The Section 124A defines sedition as:

An offence committed when “any person by words, either spoken or written, or by signs, or by visible representation, or otherwise, brings or attempts to bring into hatred or contempt, or excites or attempts to excite disaffection towards the government established by law in India”.

- Disaffection includes disloyalty and all feelings of enmity.
- However, comments without exciting or attempting to excite hatred, contempt or disaffection, will not constitute an offense.
- Sedition is a non-bailable offense.
- Punishment under Section 124A ranges from imprisonment up to three years to a life term with/without a fine.

### Sedition as a cognizable offense

- Sedition was made a cognizable offense for the first time in history in India during the tenure of Prime Minister Indira Gandhi in 1973, that is, arrest without a warrant was now permissible.
- In 1962 the Supreme Court of India interpreted the section to apply only if there is, say, “incitement to violence” or “overthrowing a democratically elected government through violent means”.

### Is it constitutionally valid?

- **Violative of FRs:** Two high courts had found it unconstitutional after Independence, as it violated the freedom of speech and expression.
- **Reasonable restrictions:** The Constitution was amended to include ‘public order’ as one of the ‘reasonable restrictions’ on which free speech could be abridged by law.
- **Kedar Nath Case:** Thereafter, the Supreme Court, in Kedar Nath Singh v. State of Bihar (1962) upheld its validity.
- **Limited use:** At the same time, it limited its application to acts that involve “intention or tendency to create disorder” or incitement to violence.

- **Strong criticism doesn't amount to sedition:** Thus, even strongly worded remarks, as long as they do not excite disloyalty and enmity, or incite violence, are not an offence under this section.
- **Frequent use:** In recent times, the resort to this section is seen as disturbingly frequent.
- **Curbing dissent:** Activists, cartoonists and intellectuals have been arrested under this section, drawing criticism from liberals that it is being used to suppress dissent and silence critics.
- **Misuse for propaganda:** Authorities and the police who invoke this section defend the measure as a necessary step to prevent public disorder and anti-national activities.
- **Irrelevance:** Many of them have also been detained under the National Security Act and UAPA.

### What is being debated about it?

- **Demand for its scrapping:** Liberals and rights activists have been demanding the scrapping of Section 124A.
- **Provision is outdated:** It is argued that the provision is “overbroad”, i.e., it defines the offence in wide terms threatening the liberty of citizens.
- **Various calls for its reconsideration:** The Law Commission has also called for a reconsideration of the section.
- **Tyranny of the law:** It has pointed that Britain abolished it more than a decade ago and raised the question of whether a provision introduced by the British to put down the freedom struggle should continue to be law in India.
- **Doctrine of severability:** Some argue that a presumption of constitutionality does not apply to pre-constitutional laws as those laws have been made by foreign legislature or bodies.

### Need for such law

- There are some tendencies exist even today who wish to **overthrow the state apparatus and constitutional scheme of India.**
- It falls on the judiciary to protect Articles 19 and Article 21 of the Constitution.
- **Undue exercise of free speech** has led to overture of ordinary dissent into an **anti-national insurrection or uprising.**
- There are areas in the country that face **hostile activities and insurgencies** created by rebel groups, like the Maoists.
- There must be restrictions on expressing **unnecessary contempt or ridiculing of the Government** beyond certain limits.

## Way forward

- India is the largest democracy in the world and the right to free speech and expression is an essential ingredient of democracy.
- The sedition law should not be abolished as some measures are needed to check communal violence & insurgency activities like Naxals.
- The definition of sedition should be narrowed down, to include only the issues pertaining to the territorial integrity of India as well as the sovereignty of the country.
- Section 124A should not be misused as a tool to curb free speech.

## 3. Questioning the Safety of Aadhaar

Two days after issuing an advisory asking people to refrain from sharing photocopies of their Aadhaar Card, the Unique Identification Development Authority of India (UIDAI) opted to withdraw the notification.

### UIDAI Advisory

- The withdrawn notice had suggested holders **use a masked Aadhaar** card instead of the conventional photocopy.
- It added that the **document must not be downloaded from a cybercafe or public computer** and if done for some reason, must be permanently deleted from the system.
- **Private entities** like hotels or film halls **cannot collect or keep copies** of the identification document.

### What is Masked Aadhaar?

- 'Masked Aadhaar' veils the first eight digits of the twelve-digit ID with 'XXXX' characters.
- The notice informed that only entities possessing a 'User Licence' are permitted to seek Aadhaar for authentication purposes.

### Why in news now?

- In July 2018, Telecom Regulatory of India's Chairman tweeted his Aadhaar number challenging users to "cause him any harm".
- In response, users dug up his mobile number, PAN number, photographs, residential address and date of birth.
- UIDAI dismissed assertions of any **data leak**, arguing that most of the data was publicly available.
- It did however caution users from publicly sharing their Aadhaar numbers.

## Security of Aadhaar: What does the law say?

- The Aadhaar (Targeted Delivery of Financial and Other Subsidies Benefits and Services) Act, 2016 makes it clear.
- Aadhaar authentication is **necessary for availing subsidies, benefits and services that are financed from the Consolidated Fund of India.**
- In the absence of Aadhaar, the individual is to be offered an alternate and viable means of identification to ensure she/he is not deprived of the same.
- Separately, Aadhaar has been described as a **preferred KYC (Know Your Customer) document** but not mandatory for opening bank accounts, acquiring a new SIM or school admissions.
- The **requesting entity would have to obtain the consent of the individual** before collecting his/her identity.
- The entity must ensure that the information is only used for authentication purposes on the **Central Identities Data Repository (CIDR).**

## What is CIDR?

- This centralised database contains all Aadhaar numbers and holder's corresponding demographic and biometric information.
- UIDAI responds to authentication queries with a 'Yes' or 'No'.
- In some cases, basic KYC details (as name, address, photograph etc.) accompany the verification answer 'Yes'.
- The regulator **does not receive or collect the holder's bank, investment or insurance details.**

## Protection of confidentiality

- The Act makes it clear that **confidentiality needs to be maintained** and the authenticated information cannot be used for anything other than the specified purpose.
- More importantly, no Aadhaar number (or enclosed personal information) collected from the holder can be published, displayed or posted publicly.
- Identity information or authentication records would only be liable to be produced pursuant to an **order of the High Court or Supreme Court, or by someone of the Secretary rank or above in the interest of national security.**

## Is identity theft via Aadhaar possible?

- As per the National Payment Corporation of India's (NCPI) data, ₹6.48 crore worth of **financial frauds** through 8,739 transactions involving 2,391 unique users took place in FY 2021-22.
- Since the inception of the UID project, institutions and organisations have endowed greater focus on linking their databases with Aadhaar numbers.



- This include bank accounts especially in light of the compulsory linkage for direct benefit transfer schemes.

### Structural problems with UIDAI

- The **Aadhaar Data Vault** is where all numbers collected by authentication agencies are centrally stored.
- Comptroller and Auditor General of India's (CAG) latest report stipulated that **UIDAI has not specified any encryption algorithm** (as of October 2020) to secure the same.
- There is **no mechanism** to illustrate that the entities were adhering to appropriate procedures.
- Further, UIDAI's **unstable record with biometric authentication has not helped it with de-duplication efforts**, the process that ensures that each Aadhaar Number generated is unique.
- The CAG's reported stated that apart from the issue of **multiple Aadhaars to the same resident**, there have been instances of the same biometric data being accorded to multiple residents.

### Conclusion

- The CAG concluded it was "not effective enough" in detecting the leakages and plugging them.
- Biometric authentications can be a cause of worry, especially for disabled and senior citizens with both the iris and fingerprints dilapidating.
- Though the UIDAI has assured that no one would be deprived of any benefits due to biometric authentication failures.
- The absence of an efficient technology could serve as poignant premise for frauds to make use of their 'databases'.

## 4. India Bangladesh Relations

Two years after they were stopped due to the onset of the pandemic, passenger train services between India and Bangladesh resumed with the Bandhan Express setting off from Kolkata for Khulna and the Maitree Express starting its run from Dhaka for Kolkata.

### History of Rail Connectivity

- The Bandhan Express was resumed by rebooting a long-forgotten rail link between Kolkata and the industrial hub of Khulna, the third-largest city of Bangladesh.

- In 1965, this route was served by the Barisal Express, which was stopped due to the India-Pakistan war.
- The Modi government along with the Sheikh Hasina regime restarted that with Bandhan in 2017.
- The Bandhan Express was the second train to be flagged off after the introduction of Maitree Express between Kolkata and Dhaka Cantonment in April, 2008.
- It covers the distance between Kolkata and Khulna via Petrapole and Benapole border route to cater to the demands of the people from both the countries.
- The Bandhan Express was resumed in 2017 by rebooting a long-forgotten rail link between Kolkata and the industrial hub of Khulna.

### **Beyond passenger travel**

- The governments of both the countries have been working towards strengthening the rail link between them, and not just through passenger trains.
- In August 2021, the two sides started regular movement of freight trains between the newly-restored link between Haldibari in India and Chilahati in Bangladesh.
- The Haldibari-Chilahati rail link between India and the then East Pakistan was also operational till 1965 and stopped due to the war.
- This was part of the broad gauge main route from Kolkata to Siliguri at the time of Partition.
- The two sides envisage at least 20 freight trains to cross the border per month on this link.

### **Rail infrastructure**

- Once part of a single, seamless railway network under British rule, trains continued to pass between the two countries even after the Partition.
- The infrastructure to connect the two sides through railways was, therefore, largely present.
- Policymakers on both sides viewed this as an opportunity to deepen diplomatic ties using cross-border movements of goods and passengers.
- Five rail links have so far been rebooted between India and Bangladesh:

Petrapole (India)-Benapole (Bangladesh), Gede (India)- Darshana (Bangladesh), Singhabad (India)-Rohanpur (Bangladesh), Radhikapur (India)-Birol (Bangladesh) and the Haldibari-Chilahati link

## 5. The sedition law must go

By order dated May 11, 2022, a Bench presided over by the Chief Justice of India, has directed that the petitions challenging the Section 124A be listed for final determination in the third week of July 2022; and that in the meantime suspend the use of Section 124A IPC.

### Historical background of Section 124A

- With effect from 1870, (as amended in 1955), Section 124A of the Penal Code read:
  - “Sedition” is the vaguest of all offences known to the criminal law.
  - In colonial times, it was defined expansively in order to uphold the majesty of British power in India.
  - Before 1950, there were several Court decisions in operation on Section 124A; amongst them was Bal Gangadhar Tilak’s case (1897).
  - **Absence of affection:** In Bal Gangadhar Tilak’s case the Privy Council declined to grant leave to appeal, affirming that “disaffection” only meant “**absence of affection** in any degree towards the British rule or its administration or representatives”, and that exciting of mutiny or rebellion or actual disturbance of any sort was “absolutely immaterial”.
  - With the **establishment of a Federal Court by the Government of India Act, 1935**, in Niharendu Dutt Majumdar And Ors. vs Emperor the Federal Court held that if the language of Section 124A were to be read literally “it would make a surprising number of persons in India guilty of sedition and that no one, however, supposes that it is to be read in this literal sense”
  - However, in 1947 it was precisely in this literal sense that the interpretation of Section 124A was reiterated by a Bench of five judges of the Privy Council (AIR 1947 P.C. 82) in which it was declared that: “If the Federal Court had given their attention to Tilak’s case (1897) they should have recognised it as an authority... by which they were bound”.
  - With the advent of the Constitution of India on January 26, 1950, this interpretation of Section 124A became “the law in force immediately before the commencement of the Constitution”.

### Section 124A after 1950

- **Article 372:** It stated that all laws in force in the territory of India immediately before the commencement of the Constitution shall continue in force therein until altered or repealed or amended by a competent legislature or other competent authority.

- **Protected due to Article 19(2):** In 1962, in criminal appeals arising from the states of Bihar and Uttar Pradesh, a Constitution Bench of the Supreme Court held that though Section 124A “clearly violated” the fundamental right to freedom of speech and expression in Article 19(1)(a), it **was not unconstitutional** only because it was protected from challenge by the words “in the interests of public order” in Article 19(2).

## Conclusion

This background has now become pertinent and relevant, because in a fresh batch of writ petitions filed in 2021, the constitutionality of Section 124A (IPC) has been once again challenged in the Supreme Court.

## 6. The Digital India transformation

Recently, Prime Minister Narendra Modi made a telling observation about his idea of India: “... every Indian must have a smartphone in his hand and every field must be covered by a drone”.

### Digital India program and its impact

- Digital India solved some of the most difficult problems the country had been facing for decades.
- The **Jan-Dhan-Aadhaar-Mobile (JAM) trinity** has ensured that the poorest receive every penny of their entitled benefits.
- Financial benefits worth nearly Rs 23 lakh crore have been transferred using DBT technology in the last eight years.
- This has led to savings of Rs 2.22 lakh crore of public money.
- Leveraging the power of drones and GIS technologies, **SVAMITVA Yojana** is providing digital land records to the rightful owners
- **Digital inclusion:** The inclusive character of Digital India not only makes it a unique initiative but also reflects our core philosophy of “Sabka Saath, Sabka Vishwas”.

### Digital transformation in India

- India today is home to more than **75 crore smartphones, 133 crore Aadhaar cards**, more than 80 crore internet users, has 4G and is now accelerating towards 5G.
- It has among the lowest data tariffs in the world.

- Digital technology must be low-cost, developmental, inclusive, and substantially home-grown and it should bridge the digital divide and usher in digital inclusion.
- The digital ecosystem was also useful in tackling the challenge of the pandemic.
- To provide high-speed broadband to all the villages, optical fibre has been laid in 1.83 lakh gram panchayats under **Bharat Net**.
- **CSCs:** There were only 80,000 **Common Service Centers (CSCs)** in 2014, which is an entity under the Ministry of Electronics and IT headed by Secretary IT, for providing assisted delivery of digital services to common citizens offering only a few services. Today, there are nearly four lakh CSCs.
- **Fintech innovation ecosystem:** India has emerged as the fastest-growing ecosystem for **fintech innovations**.
- This was made possible due to innovative digital payment products like UPI and **Aadhaar-Enabled Payment Systems (AEPS)**.
- **Startup ecosystem:** India has more than 61,400 startups as of March 2022, making it the third-largest startup ecosystem after the US and China.
- With nearly 14,000 startups getting recognized during 2021-22, 555 districts of India had at least one new startup as per the Economic Survey 2022.

### **Atmanirbharta in electronic manufacturing**

- With initiatives like Modified Special Incentive Scheme (MSIPS), Electronics Manufacturing Cluster, National Policy on Electronics 2019, Electronics Development Fund, Production Linked Incentive (PLI) and Scheme for Promotion of Electronics Components and Semiconductors (SPECs), India is moving towards self-reliance in the field of electronics manufacturing.
- The value of electronics manufacturing in India has touched \$75 billion in 2020-21 from \$29 billion in 2014.
- Indian companies have developed their own 4G and 5G technologies.

### **Conclusion**

Digital India's motto - "Power to Empower" – is truly living up to its goals and expectations. The success of Digital India only confirms that it has a robust future in India's development.

### **7. Non-Resident Indians (NRIs)**

A national helpline for women deserted in Non-Resident Indian (NRI) marriages and the need for a dedicated fund to provide assistance to them are among the recommendations made at a consultation organized by the National Commission for Women (NCW).

## What are the issues faced by NRI wives?

- Abandon after marriage
- Inconclusive divorces filed abroad
- Child custody disputes

## Classification of Overseas Indians

Overseas Indians, officially known as Non-resident Indians (NRIs) or Persons of Indian Origin (PIOs), are people of Indian birth, descent or origin who live outside the Republic of India:

### (A) Non-Resident Indian (NRI)

- Strictly asserting non-resident refers only to the tax status of a person who, as per section 6 of the Income-tax Act of 1961, has not resided in India for a specified period for the purposes of the Act.
- The rates of income tax are different for persons who are “resident in India” and for NRIs.

### (B) Person of Indian Origin (PIO)

Person of Indian Origin (PIO) means a foreign citizen (except a national of Pakistan, Afghanistan, Bangladesh, China, Iran, Bhutan, Sri Lanka and/or Nepal), who:

- at any time held an Indian passport OR
- either of their parents/ grandparents/ great-grandparents were born and permanently resident in India as defined in GoI Act, 1935 and other territories that became part of India thereafter provided neither was at any time a citizen of any of the aforesaid countries OR
- is a spouse of a citizen of India or a PIO.

### (C) Overseas Citizenship of India (OCI)

- After multiple efforts by leaders across the Indian political spectrum, a pseudo-citizenship scheme was established, the “Overseas Citizenship of India”, commonly referred to as the OCI card.
- The Constitution of India does not permit full dual citizenship.
- The OCI card is effectively a long-term visa, with restrictions on voting rights and government jobs.

## 8. China's growing footprint in the Pacific Islands

Wang Yi, the Foreign Minister of China, is currently on an eight-day visit to ten Pacific Island Countries (PICs) after the MoU failed to gain consensus among the PICs.

### What are the PICs?

- The Pacific Island Countries are a cluster of 14 states which are located largely in the tropical zone of the Pacific Ocean between Asia, Australia and the Americas.
- They include Cook Islands, Fiji, Kiribati, Republic of Marshall Islands, Federated States of Micronesia (FSM), Nauru, Niue, Palau, Papua New Guinea, Samoa, Solomon Islands, Tonga, Tuvalu and Vanuatu.
- The islands are divided on the basis of physical and human geography into three distinct parts – Micronesia, Melanesia and Polynesia.

### Geo-economics of PICs

- The **islands are very small in land area**, and are spread wide across the vast equatorial swathe of the Pacific Ocean.
- Even being the smallest and least populated states, **they have some of the largest Exclusive Economic Zones (EEZs) in the world.**
- **Large EEZs translate into huge economic potential** due to the possibility of utilising the wealth of fisheries, energy, minerals and other marine resources present in such zones.
- Hence, they prefer to be identified as **Big Ocean States**, rather than Small Island States.
- In fact, Kiribati and FSM, both PICs, having **EEZs larger than that of India.**

### Strategic significance

- PICs have played an important role in major power rivalry as **springboards for power projection and laboratories for developing and demonstrating strategic capabilities.**
- The major powers of the colonial era competed with each other to gain control over these strategic territories.
- The Pacific islands also acted as one of the major **theatres of conflict during the Second World War** – between imperial Japan and the US.
- Due to the remoteness of these islands from major population centres of the world, some of the major **nuclear weapon test sites** of the US, UK and France were located here.

- In addition, the 14 PICs account for as many number of **votes in the United Nations**, and act as a **potential vote bank for major powers to mobilise international opinion**.

### China's vested interests in PIC

- China **does not have any particular historical linkages** to the PICs unlike the Western powers.
- Therefore, its interest in the PICs is of **relatively recent origin**, and is linked to China's rise in the past few decades.
- The PICs lie in the natural line of **expansion of China's maritime interest and naval power**.
- They are **located beyond China's 'First Island Chain'**, which represents the country's first threshold of maritime expansion.
- The PICs are located geostrategically in what is referred to by China as its **'Far Seas'**.
- Their control will make Chinese Blue Water Navy capable, an essential prerequisite, **for becoming a superpower in maritime domain**.

### For the Taiwan narrative

- China is preparing for what seems like an **inevitable military invasion of Taiwan**, sooner or later.
- In this context, it becomes **important to break Western domination of island chains of the Pacific**.
- This could **otherwise impede reunification**.
- **Wooing the PICs away from the West** and Taiwan will therefore make the goal of Taiwan's reunification easier for China.
- Currently, **only four PICs have recognised Taiwan**. They are Tuvalu, Palau, Marshall Islands and Nauru.

### What are the implications of China's latest move?

- China has **increasingly started talking about security cooperation** in addition to its economic diplomacy towards the PICs.
- In April 2022, China signed a **controversial security deal with the Solomon Islands**, which raised regional concerns.
- The **PICs as a collective did not agree to China's** extensive and ambitious proposals, and therefore China failed to get a consensus on the deal.



### Why did the PICs refute China?

- PICs perceived that they could have **negative implications for the sovereignty and unity of PICs** and may drag them into major power conflicts in the future.
- Some have argued that **China has acted too boldly** and has therefore met with such a debacle.
- China might have also **miscalculated the regional reaction**, perhaps led by a monolithic understanding of the PICs after seeing Solomon Islands' positive response earlier this year.

### A caution for the world

- China can always come back with improvised plan (rather bigger lollipop) which is more acceptable and use it to further pursue its final objectives incrementally.
- Moreover, this debacle does not stop China from pursuing bilateral deals of similar nature.

### Conclusion

- The intensification of China's diplomacy in PICs have made the powers who have traditionally controlled the regional dynamics like the US and Australia more cautious.
- The US has started revisiting its diplomatic priority for the region ever since the China-Solomon Islands deal.
- The role played by the US in mobilising opposition against China's proposed deal could not be ruled out.

## 9. Issues with Frivolous PIL Petitions

A Public Interest Litigation (PIL) petitioner in the Supreme Court barely escaped having to pay ₹18 lakh for indulging in a "luxury litigation".

### What is the news?

- A Supreme Court Bench of Justice B.R. Gavai and Hima Kohli initially asked the litigant to pay ₹18 lakh, that is, ₹1 lakh for every one of the 18 minutes the case took up.
- However, the court later, in its order, slashed the amount to ₹2 lakh on the request of the litigant's counsel.

### Why did the apex court get disgusted?

- The bench criticized the highly derogatory practice of filing frivolous petitions encroaching valuable judicial time.
- This time can otherwise be utilised for addressing genuine concerns.

### What is Public Interest Litigation (PIL)?

- PIL refers to litigation undertaken to secure public interest and demonstrates the availability of justice to socially-disadvantaged parties.
- It was introduced by **Justice P. N. Bhagwati** in **1979**.
- It is the chief instrument through which judicial activism has flourished in India.
- It is suited to the principles enshrined in Article 39A[a] of the Constitution to protect and deliver prompt social justice with the help of law.

### How was it introduced?

- PIL is a relaxation on the traditional rule of locus standi.
- Before 1980s the judiciary and the Supreme Court of India entertained litigation only from parties affected directly or indirectly by the defendant.
- It heard and decided cases only under its original and appellate jurisdictions.
- However, the Supreme Court began permitting cases on the grounds of PIL, which means that even people who are not directly involved in the case may bring matters of public interest to the court.
- It is the court's privilege to entertain the application for the PIL.

### Filing a PIL

Any citizen can file a public case by filing a petition:

- Under **Art 32** of the Indian Constitution, in the **Supreme Court**
- Under **Art 226** of the Indian Constitution, in the **High Court**
- Under **133** of the **Criminal Procedure Code**, in a **Magistrate's Court**

### Parties against whom PILs can be filed

- A PIL may be filed against state government, central government, municipal authority, private party.
- Also, private person may be included in PIL as 'Respondent', after concerned of state authority.
- g. a private factory in Mumbai which is causing pollution then PIL can be filed against the government of Mumbai, state pollution central board including that private factory of Mumbai.

## Importance of PIL

- PIL gives a **wider description to the fundamental rights** to equality, life and personality, which is guaranteed under part III of the Constitution of India.
- It also functions as an **effective instrument for changes in the society or social welfare**.
- Through PIL, any public or person can **seek remedy on behalf of the oppressed class** by introducing a PIL.

## Issues with PIL

- Off late, PILs have become a tool for publicity.
- People file frivolous petitions which result in the wastage of time of the courts.
- People have used them with a political agenda as well.
- They unnecessarily burden the judiciary.
- Even if the petition is eventually dismissed, the courts spend time and effort on them before dismissing them.

## How do frivolous petitions waste time?

- At present, only judges have the power to dismiss a petition.
- The Registry of the SC or HC only ensures that the technical requirements of filing a petition are fulfilled.
- As a result of which petitions are admitted to the court irrespective of the merits of the case.

## Way forward: Preventing frivolous PILs

The Supreme Court had issued **eight directions** in its **Balwant Singh Chauhal Judgment** to help constitutional courts separate genuine PIL petitions from the barmy ones:

- It had asked every High Court to frame its own rules to encourage bona fide PIL petitions and curb the motivated ones
- Verifying the credentials of the petitioner before entertaining the plea
- Checking the correctness of the contents
- Ensuring the petition involves issues of “larger public interest, gravity and urgency” which requires priority
- Ensuring there is no personal gain, or oblique motive behind the PIL
- Ensuring that it is aimed at redressal of genuine public harm or public injury

## Conclusion

- PIL petitions have had a beneficial effect on the Indian jurisprudence and has alleviated the conditions of the citizens in general.
- Such petitions bring justice to people who are handicapped by ignorance, indigence, illiteracy.

## 10. Accessible India Campaign

With its deadline of June 2022 almost up, the status of targets under the Accessible India Campaign (AIC) is likely to be discussed during a meeting of the Central Advisory Board on Disability.

### What is Accessible India Campaign?

- Accessible India Campaign or Sugamya Bharat Abhiyan is a program that is launched to serve the differently-able community of the country.
- The flagship program has been **launched on 3 December 2015**, the International Day of People with Disabilities.
- The program comes with an **index to measure the design of disabled-friendly buildings** and human resource policies.
- The initiative also in line with **Article 9 of the (UN Convention on the Rights of Persons with Disabilities) which India is a signatory since 2007.**
- The scheme also **comes under the Persons with Disabilities Act, 1995** for equal Opportunities and protection of rights which **provides non-discrimination** in Transport to Persons with Disabilities.

### Recent developments

- The Central Public Works Department (CPWD) released the Harmonised Guidelines and Standards for Universal Accessibility in India 2021.
- Drafted by a team of the IIT-Roorkee and the National Institute of Urban Affairs of the MoHUA, the revised guidelines aim to give a holistic approach.
- Earlier, the guidelines were for creating a barrier-free environment, but now they are focusing on universal accessibility.

### Key highlights

- **Ramps:** The guidelines provide the gradient and length of ramps – for example, for a length of six metres, the gradient should be 1:12. The minimum clear width of a ramp should be 1,200 mm.

- **Beyond PwDs:** While making public buildings and transport fully accessible for wheelchair users is covered in the guidelines, other users who may experience temporary problems have also been considered. For instance, a parent pushing a child's pram while carrying groceries or other bags, and women wearing saris.
- **Women friendly:** Built environment needs for accessibility for women should consider diverse age groups, diverse cultural contexts and diverse life situations in which women operate. Diverse forms of clothing (saris, salwar-kameez, etc.) and footwear (heels, kolhapuri chappals, etc.) require a certain orientations.
- **Accessibility symbols:** The guidelines call for accessibility symbols for PwD, family-friendly facilities and transgender to be inclusively incorporated among the symbols for other user groups.
- **Targeted authorities:** The guidelines are meant for State governments, government departments and the private sector, as well as for reference by architecture and planning institutes.

### Policy measures for PwDs

- India is a signatory to the **UN Convention the Right of Persons with Disabilities**, which came into force in 2007.
- The Union Minister for Social justice and Empowerment has also launched the "**Sugamya Bharat App**" to complain for ease accessibility for PwDs.
- India has its dedicated the **Rights of Persons with Disabilities Act, 2016**, which is the principal and comprehensive legislation concerning persons with disabilities.

### 11. What are Mutual Legal Assistance Treaties (MLATs)?

The CBI is in the process of sending requests to several countries seeking information under the MLATs about those involved in the online sexual abuse of minors and circulation of child pornographic material on social media platforms.

#### What are MLATs?

- The MLATs in criminal matters are the bilateral treaties entered between the countries for providing international cooperation and assistance.
- These agreements allow for the exchange of evidence and information in criminal and related matters between the signing countries.

## Benefits of Treaty

- It enhances the effectiveness of participating countries in the investigation and prosecution of crime, through cooperation and mutual legal assistance.
- It will provide a broad legal framework for tracing, restrain and confiscation of proceeds and instruments of crime as well as the funds meant to finance terrorist acts.
- It will be instrumental in gaining better inputs and insights in the modus operandi of organized criminals and terrorists.
- These in turn can be used to fine-tune policy decisions in the field of internal security.

## Enforcing MLATs in India

- The Ministry of Home Affairs (MHA) is the nodal Ministry and the Central authority for seeking and providing mutual legal assistance in criminal law matters.
- The Ministry of External Affairs (MEA) may be involved in this process when such requests are routed through diplomatic channels by these Ministries.
- Section 105 of the Criminal Procedure Code (CrPC) speaks of reciprocal arrangements to be made by the Centre with the Foreign Governments

## 12. BIMSTEC

After 25 years, BIMSTEC can do much better as a grouping, addressing shortcomings in trade and connectivity.

### About BIMSTEC

- **BIST-EC in 1997:** The 1997 **Bangkok Declaration** led to creation of the grouping of Bangladesh, India, Sri Lanka and Thailand with the acronym, BIST-EC.
- **BIMSTEC:** Three countries-Nepal, Bhutan and Myanmar joined BIST-EC later to make it the **Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)**.
- At the grouping's birth, the world was different; it was stamped by **America's 'unipolar moment'**.
- India and Thailand joined hands to start an experiment of infusing a part of South Asia with the economic and institutional dynamism that defined the Association of Southeast Asian Nations (ASEAN).
- But BIMSTEC found the burdens of South Asia too heavy to carry, and so it grew slowly.
- The grouping has succeeded in rejuvenating itself.

- **Instrument of regional cooperation and integration:** Since its Kathmandu summit in 2018, it is viewed as an **instrument of regional cooperation and integration**, not just of sub-regional cooperation.

### New opportunities in the changed geopolitical context

- In the third decade of the 21st century, the **strategic contestation between the United States and China** defines the region's geopolitics and geo-economics, creating new tensions and opportunities.
- **Deepening linkage between South Asia and Southeast Asia:** In this Indo-Pacific century, the Bay of Bengal Community (BOBC) has the potential to play a pivotal role, deepening linkages between South Asia and Southeast Asia.
- **Collaboration with IPEF:** It should accelerate the region's economic development by collaborating with the newly minted **Indo-Pacific Economic Framework for Prosperity (IPEF)**.
- New synergy should be created between BIMSTEC and the IPEF.
- While all member-states are equal, three have a special responsibility: **Bangladesh as the host of the BIMSTEC Secretariat**; Thailand as the representative of Southeast Asia; and India as the largest state in South Asia.

### Key achievements of BIMSTEC

- **Charter:** It has crafted a new Charter for itself, spelling out the grouping's **vision, functions of its constituent parts**, and has secured a legal personality.
- **Sectors of cooperation reduced to 7:** It has prioritised the sectors of cooperation, reducing them from the unwieldy 14 to the more manageable seven, with each member-state serving as the lead country for the assigned sector.
- **Strengthened Secretariat:** It has, finally, taken measures to strengthen the Secretariat.
- **Combating terrorism:** The grouping has also registered progress in **combating terrorism, forging security cooperation**, and creating mechanisms and practices for the better management of **humanitarian assistance and disaster relief**.
- **Held regular summits:** Unlike the South Asian Association for Regional Cooperation, post-2014, BIMSTEC has continued to hold its summits and meetings of Foreign Ministers.
- Unlike the **Indian Ocean Rim Association (IORA)** which held only one summit since its establishment in 1997, BIMSTEC has **succeeded in holding five summits so far**; it has now resolved to hold regular summits once in two years.

- **Sectoral cooperation:** Institutions such as an Energy Centre and the Centre on Weather and Climate are in place to push sectoral cooperation forward.

## Challenges

- **No progress on FTA yet:** A major failure relates to the continuing inability to produce a comprehensive **Free Trade Agreement (FTA)** 18 years after the signing of the Framework Agreement.
- **Lack of connectivity:** The other disappointment is connectivity – **in infrastructure** (roads, railways, air, river, and coastal shipping links), energy, the digital and financial domain, and institutions that bring people closer together for trade, tourism and cultural exchanges.
- Only limited progress has been achieved so far, despite the adoption of the **Master Plan for Connectivity supported by the Asian Development Bank (ADB)**.
- Much of the connectivity established recently is the outcome of **bilateral initiatives** taken by **India, Bangladesh, Nepal and Bhutan** to strengthen transport links.
- **No progress on Blue Economy:** The grouping has talked about the Blue Economy but is yet to begin any work on it.
- Business chambers and corporate leaders are yet to be engaged fully with the activities of BIMSTEC.

## Conclusion

If BIMSTEC is truly committed to its stated goals, it must recreate the spirit of working in unison.

### 13. Myanmar's internal situation shouldn't hobble India's 'Act East' policy

The military takeover in Myanmar on February 1, 2021 and its aftermath have seen an adverse impact on India's Act East policy.

#### Impact on Act East policy

- With the present dispensation in Myanmar, the Act East policy is going nowhere.
- **Impact on outreach:** This has not only stymied New Delhi's initiatives in terms of land outreach towards the vibrant economies of South East Asia, but has retarded development in the Northeast.



- Pragmatism demands that an ambitious policy that had fired the **aspirations of the Northeast** does not become a casualty to the inertia of policymakers.
- There seems to be a full-bodied recalibration exercise among insurgent groups operating from the Sagaing Division and Chin State in Myanmar.
- In the north, the ULFA which was until recently in a submissive mood and had declared three back-to-back unilateral ceasefires has suddenly turned belligerent.
- **Need for a relook at Act East policy:** In this background, a fresh look needs to be taken at both the furtherance of the Act East policy and the security matrix that governs the Northeast.

## Suggestions

### 1] Opening a new axis of land-sea connectivity

- **Promoting trade and commerce:** Favourable bilateral relations with Bangladesh offer an opportunity for opening a new axis of land-sea connectivity for promoting trade and commerce with Southeast Asia.
- **Upgrade land routes:** There is a need to upgrade the multitude of land routes to the seaports of Mongla and Chittagong in Bangladesh, from Assam, Meghalaya, Mizoram and Tripura.
- The key land linkages from the Northeast are – Agartala via Akhaura, Dawki (Meghalaya) via Tamabil, Sutarkandi (Assam), and Srimantapur (Tripura) via Bibir Bazar.
- **Exploit shared river connectivity:** In addition, there is a need to use inland water transport (IWT) to exploit the shared river connectivity of the Brahmaputra and Barak rivers.

### 2] Continued engagement with Myanmar

- The land gateway to South East Asia does not seem likely in the near future.
- But there should be no dilution in our initiatives to ensure that **peace and stability return to Myanmar** at the earliest.
- For this, there is a need for continued engagement, both formal and informal, with the warring factions in Myanmar.

### 3] Develop appropriate infrastructure

- Appropriate infrastructure such as **container depots, cold storage facilities and seamless highways** will have to be developed on a war footing.
- Indian manufactured goods will have to be transported to the rail/roadheads in the Northeast like Guwahati for ready access to the seaports of Bangladesh.

#### 4] Integrated defence zones

- To make ineffective the strike capability of the insurgent groups there is a need to create “integrated defence zones”.
- These should be jointly manned by the Tatmadaw (Myanmar army) and the Indian Army/ Assam Rifles
- To enthuse dynamism and empower the Assam Rifles, there is a need to retain its current structure of **being officered by the Indian Army**, as it ensures systemic command and control.
- This force needs to be mandated to undertake intelligence operations for greater transparency of the events within Myanmar and further the national strategy.

#### Conclusion

The Act East policy is intertwined with India’s Northeast policy. Let not the dismal scenario of Myanmar impede our vision for the actualisation of our ambitious Act East to go East, as alternates exist. To that end, there is a need to ensure the continued economic development of Northeastern states.

#### 14. India-Pakistan ties and the mirror of 2019

An official delegation from Pakistan was in New Delhi recently to hold talks with its Indian counterparts under the aegis of the Indus Water Treaty.

#### Positive developments in the relations

- Starting from February, India has been sending through Pakistan consignments of wheat, via the World Food Programme, to the Taliban-run Afghanistan.
- Evidently, channels of communication between the two governments are working and open hostility has subsided, if not vanished completely.
- **China factor:** The change has been driven by realist considerations that surfaced during the Ladakh border crisis on the Line of Actual Control with China in the summer of 2020.
- The recent change of government in Pakistan, including Imran Khan’s removal, is seen as a positive in New Delhi.
- The official Indian establishment has had close ties with both the Pakistan Muslim League-Nawaz and the Pakistan Peoples Party that are now part of the government.

## Countering the collusive military threat from China and Pakistan

- The border crisis in Ladakh raised the spectre of a collusive military threat between China and Pakistan.
- Such a challenge cannot be effectively dealt with by the military alone and would need all the instruments of the state – **diplomatic, economic, informational, and military** – to act in concert.
- To prevent such a situation, India's National Security Adviser Ajit Doval opened backchannel talks with Pakistan.

## Way ahead

- There are some low-hanging fruits which can be plucked the moment a political go-ahead is given.
- These include **a deal on the Sir Creek dispute**, an agreement for revival of bilateral trade, return of High Commissioners to the missions in Delhi and Islamabad, and build-up of diplomatic missions to their full strength.
- **Demilitarisation of the Siachen glacier** is still seen to be off the table as the Indian proposal is believed to be unacceptable to the Pakistan Army.
- A window of opportunity would possibly open in Pakistan after the next elections, which are scheduled next year but could be held earlier.

## Conclusion

India must shift course from the belligerence it has displayed and profited from earlier in favour of proper diplomatic and political engagement with Pakistan.

## 15. ASHA Program

India's one million Accredited Social Health Activists (ASHA) volunteers have received World Health Organization's Global Health Leaders Awards 2022.

### Background of the ASHA program

- In 1975, a WHO monograph titled 'Health by the people' and then in 1978, an international conference on primary health care in Alma Ata (in the then USSR and now in Kazakhstan), gave emphasis for countries **recruiting community health workers** to strengthen primary health-care services that were participatory and people centric.
- Soon after, many countries launched community health worker programmes under different names.

- India launched the ASHA programme in **2005-06** as part of the **National Rural Health Mission**.
- The biggest inspiration for designing the ASHA programme came from the Mitandin (meaning 'a female friend' in Chhattisgarhi) initiative of Chhattisgarh, which had started in May 2002.
- The core of the ASHA programme has been an intention to build the capacity of community members in taking care of their own health and being partners in health services.
- Each of these women-only volunteers work with a population of nearly **1,000 people in rural and 2,000 people in urban areas**, with flexibility for local adjustments.

### **A well thought through and deliberated program**

- The ASHA programme was well thought through and deliberated with public health specialists and community-based organisations from the beginning.
- **1] Key village stakeholders selected:** The ASHA selection involved key village stakeholders to ensure community ownership for the initiatives and forge a partnership.
- **2] Ensure familiarity:** ASHAs coming from the same village where they worked had an aim to ensure familiarity, better community connect and acceptance.
- **3] Community's representative:** The idea of having activists in their name was to reflect that they were/are the community's representative in the health system, and not the lowest-rung government functionary in the community.
- **4] Avoiding the slow process of government recruitment:** Calling them volunteers was partly to avoid a painfully slow process for government recruitment and to allow an opportunity to implement performance-based incentives in the hope that this approach would bring about some accountability.

### **Contribution of ASHA**

- It is important to note that even before the COVID-19 pandemic, ASHAs have made extraordinary contributions towards enabling **increased access to primary health-care services**; i.e. maternal and child health including immunisation and treatment for hypertension, diabetes and tuberculosis, etc., for both rural and urban populations, with special focus on difficult-to-reach habitations.
- Over the years, ASHAs have played an outstanding role in making India polio free, increasing routine immunisation coverage; reducing maternal

mortality; improving new-born survival and in greater access to treatment for common illnesses.

## Challenges

- **Linkages with AWW and ANM:** When newly-appointed ASHAs struggled to find their way and coordinate things within villages and with the health system, their linkage with two existing **health and nutrition system functionaries – Anganwadi workers (AWW) and Auxiliary Nurse Midwife (ANM)** as well as with panchayat representatives and influential community members at the village level – was facilitated.
- This resulted in an all-women partnership, or A-A-A: ASHA, AWW and ANM, of three frontline functionaries at the village level, that worked together to facilitate health and nutrition service delivery to the community.
- **No fixed salary to ASHAs:** Among the A-A-A, ASHAs are the only ones who do not have a fixed salary; they do not have opportunity for career progression.
- These issues have resulted in dissatisfaction, regular agitations and protests by ASHAs in many States of India.

## Way forward

- The global recognition for ASHAs should be used as an opportunity to review the programme afresh, from a solution perspective.
- **1] Higher remuneration:** Indian States need to develop mechanisms for higher remuneration for ASHAs.
- **2] Avenues for career progression:** It is time that in-built institutional mechanisms are created for capacity-building and avenues for career progression for ASHAs to move to other cadres such as ANM, public health nurse and community health officers are opened.
- **3] Extend the benefits of social sector services:** Extending the benefits of social sector services including health insurance (for ASHAs and their families) should be considered.
- **4] Independent and external review:** While the ASHA programme has benefitted from many internal and regular reviews by the Government, an independent and external review of the programme needs to be given urgent and priority consideration.
- **5] Regularisation of temporary posts:** There are arguments for the regularisation of many temporary posts in the National Health Mission and making ASHAs permanent government employees.

## Conclusion

The WHO award for ASHA volunteers is a proud moment and also a recognition of every health functionary working for the poor and the underserved in India. It is a reminder and an opportunity to further strengthen the ASHA programme for a stronger and community-oriented primary health-care system.

## 16. British PM faces No-Confidence Vote

British Prime Minister will face a no-confidence vote that could oust him from power.

### What is No-Confidence Vote?

- If the government has to demonstrate its strength on the floor of the House, it can have a motion of confidence.
- However, the opposition parties (or any member) can move a motion expressing want of confidence (no confidence) in the Council of Ministers.
- The procedure is laid down under Rule 198 of the rules of procedure and conduct of the business of the Lok Sabha.
- A no-confidence motion need not set out any grounds on which it is based.
- Even when grounds are mentioned in the notice and read out in the House, they do not form part of the no-confidence motion.

### Its procedure

- A no-confidence motion can be moved by any member of the House.
- It can be moved only in the Lok Sabha and not Rajya Sabha.
- Rule 198 of the Rules of Procedure and conduct of Lok Sabha specifies the procedure for moving a no-confidence motion.
- The member has to give written notice of the motion before 10 am which will be read out by the Speaker in the House.
- A minimum of 50 members have to accept the motion and accordingly, the Speaker will announce the date for discussion for the motion.
- The allotted date has to be within 10 days from the day the motion is accepted. Otherwise, the motion fails and the member who moved the motion will be informed about it.
- If the government is not able to prove its majority in the House, then the government of the day has to resign.

## How is the voting done?

These are the modes by which voting can be conducted:

1. **Voice vote:** In a voice vote, the legislators respond orally.
2. **Division vote:** In case of a division vote, voting is done using electronic gadgets, slips or in a ballot box.
3. **Ballot vote:** The ballot box is usually a secret vote – just like how people vote during state or parliamentary elections.

## What happens if there is a tie?

- Following the vote, the person who has the majority will be allowed to form the government.
- In case there is a tie, the speaker can cast his vote.

## 17. India needs a forward-looking strategy on Pakistan

India's approach in dealing with Pakistan today is very different from the framework that emerged at the dawn of the 1990s.

### Terms of engagement with Pakistan

- From the 1990s, for nearly three decades, it was Pakistan that had the political initiative.
- The turmoil in Kashmir, the international focus on nuclear proliferation, and the relentless external pressure for a sustained dialogue with Pakistan put Delhi in a difficult situation.
- If Pakistan was on the political offensive, a series of weak coalition governments in Delhi were forced onto the back foot.
- At the heart of Pakistan's ambition was to change the status quo in Jammu and Kashmir.
- Islamabad also played up to the concerns in Western chancelleries that the conflict in Kashmir might escalate to the nuclear level.
- The new international consensus that Kashmir is the "world's most dangerous nuclear flashpoint" aligned well with Pakistan's strategy.
- Delhi had no option but to respond, but any move to counter Pakistan would make the situation worse.
- Under Prime Minister Narendra Modi, India has begun to reset the terms of the engagement agenda.
- **Change in regional and international context:** Meanwhile, the regional and international context has also altered in many ways since the early 1990s essentially in India's favour.

## Reset in engagement

- India's transformed relations with the US, the resolution of Delhi's dispute with the global nuclear order, and getting the West to discard its temptation to mediate on Kashmir enormously improved India's diplomatic position.
- But the most consequential change has been in **the economic domain**.
- The persistent neglect of economic challenges left Pakistan in an increasingly weaker position in relation to India.
- If India has inched its way into the top six global economies, Pakistan today is broke.
- Modi had the opportunity to build on these **shifting fortunes of Delhi** and Islamabad and develop a three-pronged strategy of his own.
- **1]** India bet that the heavens won't fall if Delhi stops talking to Islamabad or negotiating with Pakistan-backed militant groups in Kashmir.
- **2]** Delhi has been unafraid of staring at nuclear escalation in responding to Pakistan's cross-border terrorism.
- **3]** By changing the constitutional status of Kashmir in 2019, India has reduced the scope of India's future negotiations with Pakistan on Kashmir.

## Way forward

- Pakistan's hand today is much weaker than in the 1990s and Delhi's room for manoeuvring has grown, notwithstanding the challenges it confronts on the China border.
- That opens some room for new Indian **initiatives toward Pakistan**.
- Getting Pakistan's army and its political class to be more practical in engaging India is certainly a tall order; but Delhi can afford to make a move.

## Conclusion

While there can be much disagreement on Pakistan's capacity to respond, Delhi's new initiatives can reinforce the positive evolution of Indian foreign policy, and expand the space for Indian diplomacy in the region and beyond.

## 18. Implications of GST Council ruling

The Supreme Court of India recently ruled that "The recommendations of the GST Council are not binding on either the Union or the States...".



## About GST Council

- The GST Council is a federal body that aims to bring together states and the Centre on a common platform for the nationwide rollout of the indirect tax reform.
- Article 279 (1) of the amended Indian Constitution states that the **GST Council** has to be constituted by the President within 60 days of the commencement of the Article 279A.
- According to the article, the GST Council will be a joint forum for the Centre and the States. It consists of the following members:
  - 1] The Union Finance Minister will be the **Chairperson**.
  - 2] As a member, the Union Minister of State will be in charge of Revenue of Finance.
  - 3] The Minister in charge of finance or taxation or any other Minister nominated by each State government, as members.
- The Council has to function as a platform to bring the Union and State governments together.
- As a mark of cooperative federalism, the Council shall, unanimously or through a majority of 75% of weighted votes, decide on all matters pertaining to GST and recommend such decisions to the Union and State governments.
- **Article 279A (4)** specifies that the Council will **make recommendations to the Union and the States** on the important issues related to GST, such as the goods and services will be subject or exempted from the Goods and Services Tax.
- **Article 246A** confers **simultaneous or concurrent powers** on Parliament and the state legislatures to make laws relating to GST.
- This article is in sharp contrast to the constitutional scheme that prevailed till 2017.

## Background of the case

- In Union of India Anr. vs Mohit Minerals Pvt. Ltd., the Supreme Court of India on May 19, 2022 ruled on a petition relating to the levy of Integrated Goods and Services Tax (IGST) on ocean freight paid by the foreign seller to a foreign shipping company.
- Mohit Minerals had filed a writ petition before the Gujarat High Court challenging notifications **levying IGST** on the ground that customs duty is levied on the component of ocean freight and the levy of IGST on the freight element in the course of transportation would amount to **double taxation**.
- GST is paid by the supplier, but if the shipping line is located in a non-taxable territory, then GST is payable by the importer, the recipient of service.
- Ocean freight is a method of transport by which goods and cargo is transported by ships through shipping lines.

## Important aspects of the judgement

- **Power to legislate simultaneously:** Article 246A gives powers to the Union and State governments **simultaneously to legislate on the GST.**
- In other words, the two tiers of the Indian Union can simultaneously legislate on matters of the GST (except the IGST, which is in the legislative domain of the Union government).
- In this case, the Government of India had argued that “Neither can Article 279A override Article 246A nor can Article 246A be made subject to **Article 279A.**”
- However, cooperative federalism is to operate through the GST Council to bring in harmony and alignment in matters pertaining to the GST from both governments.
- Given this background, the Union government had almost delegated the powers to create laws under the GST Act Section 5(1) to the GST Council.
- **Persuasive value only:** The Supreme Court of India adjudicated that the GST Council’s recommendations are non-qualified and the simultaneous legislating powers of the Union and State governments give only **persuasive value to the Council’s recommendations.**
- The power of the recommendations rests on the practice of **cooperative federalism and collaborative decision-making** in the Council.

## Issues with voting rights in GST council

- **Inbalance in voting rights:** The Union government holds **one-third weight** for its votes and all States have two-thirds of the weight for their votes.
- This gives **automatic veto power to the Union government** because a resolution can be passed with at least three-fourths of the weighted votes.
- This imbalance in the voting rights between the Union and State governments, makes democratic decision-making difficult.
- **Equal weight to all states creates political problems:** Though all the States are **not equal in terms of tax capacity**, everyone has equal weight for their votes.
- This creates another political problem as the smaller States with lesser economic stakes can be easily influenced by interest groups.
- **Debate on political lines:** The debates in the GST Council will be on **political lines** rather than on the economics of taxation.
- When the States governed by Opposition parties are vocal on counter-points, the States governed by the same party at the Union government are mute spectators.

## Way forward

- **Work in a harmonised manner:** The Supreme Court has recorded, “Since the Constitution does not envisage a repugnance provision to resolve inconsistencies between the Central and State laws on GST, the GST Council must ideally function, as provided by **Article 279A(6)** in a harmonised manner to reach a workable fiscal model through cooperation and collaboration.”
- **Cooperative federalism:** The nuanced understanding of cooperative federalism shows that there is no space for one-upmanship in either of the two tiers of the Indian federal government and particularly for the Union government under a quasi-federal Constitution.

## Conclusion

Given the lopsided power structure favouring the Union government in the GST Council, it is against the spirit of democracy and federalism that the finances of governments can be left to such bodies.

## 19. India and Vietnam sign Mutual Logistics Agreement

India and Vietnam signed a MoU on mutual logistics support.

### India and other such Logistics Agreements

- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel.
- It provides for logistical support and increasing operational turnaround of the military when operating away from India.
- India has signed several logistics agreements including with all Quad countries, France, Singapore and South Korea beginning with the Logistics Exchange Memorandum of Agreement (LEMOA) with the U.S. in 2016.

### What makes this newer agreement special?

- The MoU is the first such major agreement which Vietnam has signed with any country.
- Both nations signed key pacts including a rare 10-year vision document.
- Both have similar territorial challenges from China.

### Why Vietnam is at the centre of India's policy to counter China?

- India entered the contested region of the **South China Sea via Vietnam.**

- India signed an agreement with Vietnam in October 2011 to expand and promote **oil exploration in the South China Sea**.
- It stood by its decision **despite China's challenge** to the legality of Indian presence.
- **Hanoi has been publicly sparring with Beijing over its claims** to the South China Sea for some years now.
- India and Vietnam share a **Comprehensive Strategic Partnership since 2016** and defence cooperation is a key pillar of this partnership.
- Vietnam is an important partner in **India's Act East policy**.

### Significance of such ties

- If China wants to expand its presence in South Asia and the Indian Ocean region, the thinking in New Delhi goes, India can do the same thing in East Asia.
- India can develop robust ties with states on China's periphery such as Vietnam without giving China a veto on such relationships.

### Contributing factor: India's Necklace of Diamonds Strategy

- Over the past few years, China is expanding its footprint in the Indian Ocean through its 'Debt Trap Diplomacy' and 'String of Pearls Strategy'.
- Through its String of Pearls strategy, China is expanding its footprints to contain Indian hold in the Indian Ocean.
- It is creating a ring around India through strategically placed nations such as at Chittagong (Bangladesh), at Karachi, Gwadar port (Pakistan) and at Colombo, Hambantota (both in Sri Lanka) and other facilities.

### What is Necklace of Diamonds Strategy?

- Its strategy aims at garlanding China or in simple words, the counter encirclement strategy.
- India is expanding its naval bases and is also improving relations with strategically placed countries to counter China's strategies.
- Under this strategy, India's strategic bases include-
  1. Changi Naval Base, Singapore
  2. Sabang Port, Indonesia
  3. Duqm Port, Oman
  4. Assumption Island, Seychelles
  5. Chabahar Port, Iran

- Apart from getting direct access to the strategically placed naval bases, India is also developing new naval bases, developing the old bases to garland China.

## Conclusion

- India has a perfect antidote for Chinese expansion.
- It has been successful in establishing healthy relations with all the nations on China's periphery.

## 20. Challenges in dealing with Indo-Pacific

The Indo-Pacific region has been under pressure and East Asia, in particular, has had to weather repeated storms.

### Background

- Recently, U.S. President Joseph Biden was on his five-day visit to Asia.
- During this visit, the new conservative South Korean government showed a willingness to expand the presence of a U.S. missile defence system in the country, which had earlier angered China.
- In Japan, the administration promised him that it was ready to do away with its long-standing 1% GDP ceiling for annual defence spending.
- Mr. Biden said at a press conference that the U.S. would **intervene militarily** to defend Taiwan if it came under attack from China.
- The President and members of his delegation later clarified that there is no change in the substance of American foreign policy, which is still governed by the **Taiwan Relations Act**.
- As per the 1979 Congressional law, the U.S. "shall provide Taiwan **with arms of a defensive character**" so that the region can defend itself.
- The law says nothing about the U.S. being required to step in militarily to defend Taiwan in the event of an invasion by China.

### China-challenge in Indo-Pacific

- South Korea and Japan face regular nuclear and missile threats from North Korea.
- **Challenge to international maritime law:** China not only challenges international maritime laws in the South China Sea, but also confronts Japan over the Senkaku Islands.
- **Spratly Islands dispute:** Six nations, including China and Taiwan, are involved in the **dispute over the Spratly Islands**, which are supposedly sitting on vast reserves of oil and natural gas.

- **Militarisation of disputed isles:** China has vigorously militarised some portions of the disputed isles, islets and coral reefs; and countries like **Vietnam and the Philippines** are anxious not to be left behind.

### Will IPEF framework help in tackling challenges from China?

- The US has sought to deal with China by establishing an **Indo-Pacific Economic Framework (IPEF)** with Australia, Brunei, India, Indonesia, Japan, South Korea, Malaysia, New Zealand, the Philippines, Singapore, Thailand, and Vietnam.
- **Four pillars of IPEF:** The IPEF will work on fine-tuning four major pillars: standards and rules for digital trade; resilient supply chains; green energy commitments; and fair trade.
- **Issues of trade and tariffs:** However, there is discontent that the framework does not address issues of **trade and tariffs**.
- **Lack of trade component:** Asian partners really want is trade, they want market access.
- And the trade component of the IPEF is really lacking.★

### Two facets of Indo-Pacific

- **1] Balance relations with US and China:** One is that China's neighbours would rather balance relations between Washington and Beijing.
- **2] Extent of resistance:** Second is the extent to which countries in the region will want to get on the anti-China bandwagon, economic or strategic.
- Whether it is in East, Southeast or South Asia, every country has **its own unique relationship with Beijing**.
- India may be a part of the Quad, but is quite mindful that it is the only country in the group that **shares a land border with China**.
- South Korea and Japan are part of a strong **American security/strategic partnership** but will be keen on maintaining their economic status with China.
- This is also true for the **Association of South East Asian Nations**.

### Conclusion

Given the complex nature of the threats and the challenges the Indo-Pacific faces, drawing up any strategy remains to be an uphill task.

## 21. Healthcare in India is ailing. Here is how to fix it

The lesson emerging from the pandemic experience is that if India does not want a repeat of the immeasurable suffering and the social and economic loss, we need to make public health a central focus.

### Need for institutional reforms in the health sector

- The importance of public health has been known for decades with every expert committee underscoring it.
- Ideas ranged from instituting a central public health management cadre like the IAS to adopting an institutionalised approach to diverse public health concerns – from healthy cities, enforcing road safety to immunising newborns, treating infectious diseases and promoting wellness.
- Covid has shifted the policy dialogue from health budgets and medical colleges towards much-needed institutional reform.

### About National Health Mission (NHM)

- The National Health Mission (NHM) seeks to provide **universal access to equitable, affordable and quality health care** which is accountable, at the same time responsive, to the needs of the people, **reduction of child and maternal deaths** as well as population stabilization, gender and demographic balance.
- The Framework for Implementation of NHM has been approved by the Cabinet on May 1, 2013.
- NHM encompasses two Sub-Missions, **National Rural Health Mission (NRHM)** and **National Urban Health Mission (NUHM)**.
- The National Rural Health Mission (NRHM) was launched in 2005 with a view to bringing about dramatic improvement in the health system and the health status of the people, especially those who live in the rural areas of the country.

### Learning from the failure of National Health Mission (NHM)

- The National Health Mission (NHM) has been in existence for about 15 years now and the health budget has trebled – though not as a proportion of the GDP.
- Despite this less than 10 per cent of the health facilities below the district level can attain the grossly minimal **Indian public health standards**.
- Clearly, the **three-tier model** of subcentres with paramedics, primary health centres with MBBS doctors and community **health centres (CHC)** with four to six specialists has failed.

- **Lack of accountability framework:** The model's weakness is the absence of an accountability framework.
- The facilities are designed **to be passive** – treating those seeking care.

## Suggestions

- **1] FHT:** Instead of passive design of NHM, we need **Family Health Teams (FHT)** like in Brazil, accountable for the health and wellbeing of a dedicated population, say 2,000 families.
- The FHTs must consist of a doctor with a diploma in family medicine and a dozen trained personnel to reflect the **skill base required for the 12 guaranteed services** under the Ayushman Bharat scheme.
- **A baseline survey** of these families will provide information about those needing attention.
- **Family as a unit:** The team ensures a continuum of care by taking the family as a unit and ensuring its well-being over a period.
- Nudging these families to **adopt lifestyle changes**, following up on referrals for medical interventions and post-operative care through home visits for nursing and physiotherapy services would be their mandate.
- **2] Health cadre:** The implication of and central to the success of such a reset lies in creating appropriate cadres.
- **3] Clarity to nomenclatures:** There is also a need to declutter policy dialogue and provide clarity to the nomenclatures.
- Currently, public health, family medicine and public health management are used interchangeably.
- While the family doctor cures one who is sick, the public health expert prevents one from falling sick.
- The **public health management specialist** holds specialisation in health economics, procurement systems, inventory control, electronic data analysis and monitoring, motivational skills and team-building capabilities, public communication and time management, besides, coordinating with the various stakeholders in the field.
- **4] Move beyond doctor-led systems:** India needs to move beyond the doctor-led system and paramedicalise several functions.
- Instead of wasting gynaecologists in CHCs midwives (nurses with a BSc degree and two years of training in midwifery) can provide equally good services except surgical, and can be positioned in all CHCs and PHCs.
- This will help reduce C Sections, maternal and infant mortality and out of pocket expenses.
- **5] Counsellors and physiotherapists at PHC:** Lay counsellors for mental health, physiotherapists and public health nurses are critically required for addressing the multiple needs of primary health care at the family and community levels.



- **6] Review of existing system:** Bringing such a transformative health system will require a comprehensive review of the existing training institutions, standardising curricula and the qualifying criteria.
- **Increase spending on training:** Spending on pre-service and in-service training needs to increase from the current level of about 1 per cent.
- **7] Redefining of functions:** A comprehensive redefinition of functions of all personnel is required to weed out redundancies and redeploy the rewired ones.

## Conclusion

Resetting the system to current day realities requires strong political leadership to go beyond the inertia of the techno-administrative status quoist structures. We can.

## 22. Indus Waters Treaty (IWT): An enduring agreement bridging India-Pakistan ties

The 118th meeting of the Permanent Indus Commission (PIC) comprising the Indus Commissioners of India and Pakistan held on May 30-31, 2022 in New Delhi.

### Indus Waters Treaty, 1960: A background

- After years of arduous negotiations, the Indus Waters Treaty was signed in Karachi on September 19, 1960, by then Indian Prime Minister Jawaharlal Nehru and then Pakistani President Ayub Khan, negotiated by the World Bank.
- According to this agreement, control over the water flowing in three “**eastern**” rivers of India – the Beas, the Ravi and the Sutlej was given to India
- The control over the water flowing in three “**western**” rivers of India – the Indus, the Chenab and the Jhelum was given to Pakistan
- The treaty allowed India to use western rivers water for limited irrigation use and **unrestricted use for power generation**, domestic, industrial and non-consumptive uses such as navigation, floating of property, fish culture, etc. while laying down precise regulations for India to build projects
- India has also been given the right to generate hydroelectricity through the run of the river (RoR) projects on the Western Rivers which, subject to specific criteria for design and operation is unrestricted.
- The **Permanent Indus Commission**, which has a commissioner from each country, oversees the cooperative mechanism and ensures that the two countries meet annually (alternately in India and Pakistan).
- This year, the commission met twice, in March in Islamabad, Pakistan, and then in New Delhi, in May.

- It is a rare feat that despite the many lows in India-Pakistan relations, talks under the treaty have been held on a regular basis.

### Some disagreements

- Throughout its existence, there have been many occasions during which differences between the two countries were discernible.
- Both countries held different positions when Pakistan raised objections regarding the technical design features of the Kishanganga and Ratle hydroelectric power plants.
- Differences were also discernible when Pakistan approached the World Bank to facilitate the setting up of a court of arbitration to address the concerns related to these two projects referred to in Article IX Clause 5 of the treaty, and when India requested the appointment of a Neutral Expert referent to Clause 2.1 of Article IX .
- Eventually, on March 31, 2022, the World Bank, decided to resume two separate processes by appointing a neutral expert and a chairman for the court of arbitration.
- The appointment of a **neutral expert** will find precedence to address the differences since under Article IX Clause 6 of the treaty provisions, Arbitration 'shall not apply to any difference while it is being dealt with by a Neutral Expert'.
- Pakistan, invoking Article VII Clause 2 on future cooperation, raised objections on the construction and technical designs of the Pakal Dul and Lower Kalnai hydropower plants.
- Similarly, India has raised concerns on issues such as Pakistan's blockade of the Fazilka drain.

### Lessons from the treaty

- **Engagement between conflicting nations:** The treaty is an illustration of a **long-standing engagement between the conflicting nations** that has stood the vagaries of time.
- **Water management cooperation:** The treaty is considered one of the oldest and the most effective examples of **water management cooperation** in the region and the world.
- **Avoiding conflict:** With the exception of differences on a few pending issues, both countries have **avoided any actions resulting in the aggravation of the conflict** or acted in a manner causing conflict to resurface.

## Potential for cooperation

- **Joint research:** Recognising common interests and mutual benefits, India and Pakistan can undertake joint research on the rivers to study the impact of climate change for ‘future cooperation’ (underlined in Article VII).
- **Potential for cooperation and development:** The Indus Waters Treaty also offers great potential for cooperation and development in the subcontinent which can go a long way in ensuring peace and stability.

## Conclusion

Given that both India and Pakistan have been committed to manage the rivers in a responsible manner, the Treaty can be a reference point to resolve other water-related issues in the region through regular dialogue and interaction.

## 23. What India must do to protect its ties with the Islamic world

A controversial remark by the ruling party spokesperson against the Prophet has snowballed into a diplomatic row. Against this backdrop, New Delhi should not stop engaging the Gulf countries and strive to move beyond damage control.

### International reaction against the remarks

- The United Arab Emirates, Oman, Indonesia, Iraq, the Maldives, Jordan, Libya and Bahrain have joined the growing list of countries in the Islamic world that have condemned the remarks.
- Earlier, Kuwait, Iran and Qatar had called Indian ambassadors to register their protest, and Saudi Arabia had issued a strongly-worded statement.
- Campaigners (including a few GCC regimes) demand that Prime Minister of India should tender an apology for all that happened.
- But New Delhi’s stance is categorical and legitimate insofar as the **Union government has nothing to do with such unsolicited comments.**

### Why WANA is important for India

- **Engagement with WANA:** Countries in **West Asia and North Africa (WANA)** region do not have a **fixed position** vis-à-vis India.
- Delhi has **vibrant economic and strategic ties** with almost all regimes in the region.
- That’s precisely the reason these countries are unwilling to join the Islamabad-led chorus or go beyond passing resolutions.

- India's signing of a free trade agreement (FTA) with the UAE and the ongoing negotiations for a **wider FTA with the GCC** could be an eye-opener for the country's detractors.
- **India's energy needs:** As much as 40 per cent of oil and an equal share of gas requirements are met through India's strategic cooperation with the Gulf regimes.
- **Mutuality of interests:** India and the WANA regimes know that there is a mutuality of interests in these transactions which cannot be substituted by any other segments of the world system.
- **Indian diaspora:** Equally important is the role of the more than eight million-strong Indian diaspora in the WANA region.
- The "**Gulf remittance**" is an important part of the Indian economy, as important as the **Indian investment in the GCC and GCC investment in India.**

### Way forward

- India's foreign policy strategy – which includes **strategic bargaining** with regional and international actors – would fetch reasonable dividends.
- The response to its Ukraine war strategy has convinced South Block that it has **adequate manoeuvrability in global affairs.**

### Conclusion

New Delhi should not stop engaging the countries, especially the ones in the WANA region, as both have shared interests. Therefore, South Block must go beyond a mere damage-control exercise.

### 24.What is National Intelligence Grid (NATGRID)?

The Ministry of Home Affairs (MHA) has curtailed the tenure of the Chief Executive Officer (CEO) of the National Intelligence Grid (NATGRID) and moved him to the Border Security Force (BSF).

#### What is NATGRID?

- NATGRID is an intelligence-sharing network that collates data from the standalone databases of the various agencies and ministries of the Indian government.
- It is a counter terrorism measure that collects and collates a host of information from government databases including tax and bank account details, credit/debit card transactions, visa and immigration records and itineraries of rail and air travel.

- It will also have access to the Crime and Criminal Tracking Network and Systems (CCTNS), a database that links crime information, including First Information Reports, across 14,000 police stations in India.
- As of 2019, NATGRID is headed by an Indian Police Service (IPS) officer Ashish Gupta.

### **Its establishment**

- The 26/11 terrorist siege in Mumbai back in 2008 exposed the deficiency that security agencies had no mechanism to look for vital information on a real-time basis.

### **Access to NATGRID**

- Prominent federal agencies of the country have been authorized to access the NATGRID database.
- They are the:
  1. Central Bureau of Investigation
  2. Directorate of Revenue Intelligence,
  3. Enforcement Directorate
  4. Central Board of Indirect Taxes and Customs
  5. Central Board of Direct Taxes (for the Income Tax Department)
  6. Cabinet Secretariat
  7. Intelligence Bureau
  8. Directorate General of GST Intelligence
  9. Narcotics Control Bureau
  10. Financial Intelligence Unit, and
  11. National Investigation Agency

### **Future prospects**

- According to the first phase plan, 10 user agencies and 21 service providers will be connected with the NATGRID, while in later phases, about 950 additional organizations will be brought on board.
- In the following years, more than 1,000 organizations will be further integrated into the NATGRID.
- These data sources include records related to immigration entry and exit, banking and financial transactions, and telecommunications.

## 25. CoWIN as a repurposed digital platform

Seeing its success, other nations have also expressed interest in availing CoWIN and using it as a bridge for erecting their digital health systems. Responding to this incoming interest, our prime minister has offered CoWIN as a digital public good, free of cost, for all nations globally to adopt.

### About CoWIN

- In late 2020, even before the Covid-19 vaccines had arrived, the Government of India had commenced preparations for launching the **world's largest vaccination drive**.
- This led to the beginning of the **CoWIN journey in January 2021**.
- **Scalability, modularity, and interoperability:** CoWIN, or the **Covid-19 Vaccine Intelligence Network**, was developed in a record time, with consideration given to scalability, modularity, and interoperability.
- The platform has been made available in **English and 11 regional languages** to allow citizens across multiple states to access the platform with ease.
- To **circumvent the lack of digital access**, the platform allows for up to six members to be registered under one mobile-number linked account.
- CoWIN has scaled every 100 million milestone faster than any other platform.
- It reached the coveted **one billion registered user mark** which only a handful of platforms have been able to achieve globally, and none in such a short time.
- A key feature of the platform has been its **modularity and evolvability**.
- The CoWIN team has been adept at keeping pace with the changing policy environment and scientific research and developments in the administration of vaccines.
- It was never that CoWIN became the bottleneck or delayed the implementation of our vaccination policies or drive.
- Time and again, CoWIN has proved itself as one of the most secure and robust platforms with **minimal data input and zero risk of personal data hacks**.

### Major phases of CoWIN

- The journey of CoWIN was staggered across three major phases, with multiple additions subsequently.
- In phase 1, the registration process went online where healthcare workers and frontline workers were sent system-generated notifications about their vaccination schedule.

- In subsequent phases, beneficiaries were allowed **both walk-in and online vaccination registration**, along with the choice of location and time slot as per their convenience.
- **An assisted mode** was also made available through the 240,000+ Common Service Centres (CSCs) and a helpline number.
- After ensuring successful orchestration using scalability and agile features of the platform to vaccinate individuals over 45 years of age, **the APIs of the platform were made available to private players** at the beginning of Phase III of the vaccination drive.
- Once access to its services was opened through APIs, more than 100 applications integrated with CoWIN for providing search, booking and certification facilities to their users.

### Way ahead

- The inevitable question is what will we do with CoWIN when no further Covid-19 vaccines are to be administered?
- **Repurpose the platform:** The decision is to repurpose the platform as a universal immunisation platform.
- The **credentialing service of DIVOC**, used in CoWIN, has proven to be a game-changer in the world of digital certificates.
- CoWIN service is being implemented in five other countries after India and receiving global acceptance for its veracity and sound architecture.
- There is a proposal for opening the credentialing service for more use cases in health.

### Conclusion

The story of CoWIN has truly been one of national impact and importance. And while the story started during the pandemic, it won't end with the pandemic: it will segue into a repurposed digital platform for more health use-cases.

## 26. E-Vidhan System for Paperless Legislation

A delegation of MLAs from Gujarat visited the UP Legislative Assembly to learn about the novel e-Vidhan system for paperless proceedings that has been recently adopted by the UP state assembly.

## E-Vidhan System

- The National e-Vidhan Application (NeVA) is a system for digitising the legislative bodies of all Indian states and the Parliament through a single platform.
- It includes a website and a mobile app.
- The house proceedings, starred/unstarred questions and answers, committee reports etc. will be available on the portal.
- Nagaland became the first state to implement NeVA, in March this year.

## Significance of NeVA

- There has been a **shift towards digitisation** in recent years by the government.
- NeVA aims for streamlining information related to various state assemblies, and to eliminate the use of paper in day-to-day functioning.
- PM Modi mentioned the idea of “**One Nation One Legislative Platform**” in November 2021.
- A digital platform not only gives the necessary technological boost to our parliamentary system, but also **connects all the democratic units of the country**.

## Has this been done elsewhere?

- Himachal Pradesh’s Legislative Assembly implemented the pilot project of NeVA in 2014, where touch-screen devices replaced paper at the tables of the MLAs.
- Though both Houses of Parliament have not gone fully digital yet, governments world over are heading towards embracing the digital mode.
- In December last year, the Government of Dubai became the world’s first government to go 100 percent paperless.
- It announced all procedures were completely digitised.
- This, as per a government statement, would cut expenditure by USD 350 million and also save 14-million-man-hours.

## What are the challenges?

- **Access to devices and reliable internet and electricity** was an issue particularly for legislators representing rural constituencies.
- **Lack of training and heightened concerns over security** are some more recent issues in the road to digitization.



## 27. Lessons from the Ukraine crisis price shock

The Russia-Ukraine conflict, now more than three months old, will cause major, long-term shifts in the global energy and commodity trade.

### Factors responsible for high prices

- **Ukraine war:** Western sanctions on Russia and efforts of European nations to diversify their energy supplies are already causing market distortions and high prices.
- Crude oil prices are at their highest level since 2014; the price of LNG is at its highest ever, fertiliser and food are up and markets for several other commodities such as nickel have been disrupted.
- Expensive commodities are already causing distress in India's neighbourhood, for example, in Sri Lanka and Pakistan.
- **Insufficient investment:** Insufficient investment in oil and gas production in preceding years resulted in high prices, and shortages were being felt.
- A number of European investors, such as Norway's sovereign wealth fund, announced they would no longer invest in traditional fuels – oil, gas, coal.
- Natural gas is used as a feedstock for fertiliser.
- An energy shock is then inevitably followed by a food price shock.

### Future trends

#### 1] Strained EU-Russia relations will distort prices

- In the immediate term, the EU is trying to source its raw materials – most critically oil and natural gas, but also fertiliser, agricultural goods and metals – from non-Russian sources.
- This will cause **distortions and price spikes** for those commodities in the global market, as can already be seen in the natural gas market, up 300 per cent in the last year.

#### 2] Sanctions are unlikely to achieve the desired political outcome

- The US and its allies are quick to impose sanctions – and these are rarely withdrawn, if ever.
- Iran has been under US sanctions since 1979, and the same with Venezuela for over a decade.
- In both cases, sanctions have failed to achieve the desired political outcome.
- As Russia is much better placed than either of those two countries to weather sanctions, the restrictions are likely to remain for a long while.

### 3] Emerging world unwilling to align with West on sanctions

- The high price of energy and the resulting inflation shows why much of the emerging world is unwilling and unable to align with the West on the current sanctions.
- Russia is 11 per cent of the global landmass and among the world's top five producers and exporters of oil, gas, fertiliser and other critical commodities like nickel.
- It is too big to be replaced as a supplier.
- In emerging economies, it can fan public anger and political unrest, as was seen in Tunisia and other Arab countries from 2010 on.

### 4] Larger emerging economies will disregard sanction

- Larger emerging economies such as China, India and Brazil will disregard sanctions on their key economic interests, particularly **food, fertilisers and energy**.
- Specifically for India, its dependence on these essentials is unlikely to reduce meaningfully over the next 15-20 years.

### Way forward for India

- **Collaborate with other economies:** In the immediate future, the India should collaborate with other similar economies to ensure that Russia doesn't get locked out of global commodity markets.
- **Work on insulating the supply chains:** For the long term, it must work on insulating its supply chains from global political crises.

### Conclusion

India needs to brace for the price shock emanating from the distortion caused by the shift in the energy policies of Europe. At the same time, India needs to collaborate with other similar economies to ensure that Russia doesn't get locked out of global commodity markets.

## 28. Child Marriage in India

There has been an ongoing debate on whether increasing the age of marriages can solve the problem of child marriage in India.

## Background

- It is defined as a **marriage of a girl or boy before the age of 18** and refers to **both formal marriages and informal unions** in which children under the age of 18 live with a partner as if married.
- The Prohibition of Child Marriage (Amendment) Bill, 2021, fixes 21 years as the marriageable age for women.

## Prevalence of child marriage in India

- NFHS-5 data show that **about 25% of women aged 18-29 years** married before the legal marriageable age of 18.
- **Marginal decline:** The proportion has declined only marginally from NFHS-4 (28%).
- **Higher in rural India:** Expectedly, the prevalence is **higher in rural than urban India** (28% and 17%, respectively).
- West Bengal has **the highest prevalence** (42%), followed by Bihar and Tripura (40% each).
- Oddly, the decline in child marriage has been paltry at best in these high-prevalence States.
- At the other end of the spectrum are Goa, Himachal Pradesh and Kerala (6% to 7%).
- 39% of child marriages in India take place among Adivasis and Dalits.
- The share of advantaged social groups is 17% and the remaining share is of Other Backward Classes.

## Role of structural issues in adverse health and educational outcomes

- **Impact:** Studies associate early marriage of women with **early pregnancy**, lower likelihood of accessing ante-natal care, **higher risks of maternal morbidity** and mortality, poor nutritional status of women and poor nutritional and educational outcomes of children.
- These studies seem to provide a rather compelling case for increasing the age of marriage of women from 18 to 21 years, as a delayed marriage might offer significant public health dividends.
- **Structural factors at play:** But a closer reading of the evidence shows that the association between **child marriage and adverse health outcomes does not emerge in a vacuum**.
- Rather, it is abetted by structural factors, including **social norms, poverty, and women's education**.
- **Role of social norms:** It is because of **social norms** in many regions and cultures that parents begin preparations for a girl's marriage once she has reached menarche.

- **Role of poverty:** A large proportion of child marriages take place primarily because of poverty and the burden of the huge costs of dowry associated with delayed marriages.
- **Role of education:** The NHFS-5 data confirm that a significant proportion of child marriages takes place among women with less than **12 years of schooling** and households that are socially and economically **disadvantaged**.
- The average age at marriage increases from 17 years among women who are illiterate and have had up to five years of schooling to 22 years among women who have had more than 12 years of schooling.
- This indicates that an increase in years of schooling goes hand in hand with an increase in age at marriage.
- While an increase in education is most likely to delay marriage, the **increase in age at marriage may or may not increase women's education**.

### Why the age of marriage of women matters

- Age of marriage has bearing on maternal mortality rates, fertility levels, nutrition of mother and child, sex ratios, and, on a different register, education and employment opportunities for women.
- It is also argued that other factors — such as **poverty and health services** — were far more effective as levers for improving women's and children's health and nutritional status.
- Child marriage curtail a girl's opportunities to continue her education.
- And in turn, the lack of educational opportunities plays an important role in facilitating child marriage.

### Way forward

- The fact that about one-fourth of women (18-29 years) in India have married before 18 years despite the law tells us that **legally increasing the age of marriage may not fully prevent child marriages**.
- **1] Ensure education for at least up to 12 years:** Much of the benefits can be reaped by ensuring that women complete education at least up to 12 years.
- **Bangladesh shows** that improving women's education and imparting modern skills to them that increase their employability reduces child marriage and improves health and nutrition.
- **2] Educational attainment criteria in schemes:** Schemes which ease the financial burden of marriage but the eligibility criteria of which should essentially link to educational attainment in addition to age demand attention.
- The lessons from **Janani Suraksha Yojana** and the zeal demonstrated in ending open defecation might provide valid insights here.

## Conclusion

A legalistic approach to increasing the age at marriage will produce positive results only if it leads to an improvement in women's education and skill acquisition for employability. In the absence of an enhancement in women's schooling or skills, a legalistic approach to ending child marriage might become counterproductive.

## 29. ASI Act to be made more flexible

Union Culture Minister said the Archaeological Survey of India (ASI) was working on an amendment to make the law that provides for the preservation of monuments and archaeological sites "more flexible and people-friendly".

### What is the news?

- The ASI is working to amend Ancient Monuments and Archaeological Sites and Remains (AMASR) Act 1958.
- It particularly seeks to change the current 100-metre prohibited area around protected monuments to site-specific limits.

### What is the AMASR Act?

- The AMASR Act provides for the preservation of ancient and historical monuments and archaeological sites and remains of national importance.
- It also provides for the regulation of archaeological excavations and for the protection of sculptures, carvings and other like objects.
- The Archaeological Survey of India (ASI) functions under the provisions of this act.
- The rules stipulate that area in the vicinity of the monument, within **100 metres is prohibited area**.
- The **area within 200 meters of the monument is regulated category**. Any repair or modifications of buildings in this area requires prior permission.

### About Archaeological Survey of India (ASI)

- The ASI is an attached office of the Ministry of Culture.
- It was founded in 1861 by Alexander Cunningham who also became its first Director-General.
- Under the provisions of the AMASR Act of 1958, the ASI administers more than 3650 ancient monuments, archaeological sites and remains of national importance.
- These can include everything from temples, mosques, churches, tombs, and cemeteries to palaces, forts, step-wells, and rock-cut caves.

- The Survey also maintains ancient mounds and other similar sites which represent the remains of ancient habitation.
- The ASI is headed by a Director-General who is assisted by an Additional Director General, two Joint Directors General, and 17 Directors.

### **30. BIMSTEC Technology Transfer Facility (TTF)**

The Union Cabinet chaired by the PM has approved a Memorandum of Association (MoA) by India for the establishment of the BIMSTEC Technology Transfer Facility (TTF).

#### **What is BIMSTEC?**

- The BIMSTEC formed in 1997 is an international organisation of seven South Asian and Southeast Asian nations, housing 1.73 billion people and having a combined gross domestic product of \$3.8 trillion (2021).
- The BIMSTEC member states – Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand – are among the countries dependent on the Bay of Bengal.
- Leadership is rotated in alphabetical order of country names. The permanent secretariat is in Dhaka, Bangladesh.
- A BIMSTEC free trade agreement is under negotiation (c. 2018), also referred to as the mini SAARC.

#### **What is BIMSTEC TTF?**

- The agreement was signed by the BIMSTEC member countries at the 5<sup>th</sup> BIMSTEC Summit held at Colombo, Sri Lanka on 30<sup>th</sup> March, 2022.
- The main objectives of the BIMSTEC TTF are to coordinate, facilitate and strengthen cooperation in technology transfer among the BIMSTEC Member States.
- It aims to promote the transfer of technologies, sharing of experiences and capacity building.
- The TTF shall have a Governing Board and the overall control of activities of the TTF shall be vested in the Governing Board.
- The Governing Board shall consist of one nominee from each Member State.

#### **Expected outcomes**

The expected outcomes of the BIMSTEC TTF are:

- Databank of technologies available in BIMSTEC Countries,
- Repository of information on good practices in the areas of technology transfer management, standards, accreditation, metrology, testing and calibration facilities,
- Capacity building, sharing of experiences and good practices in development, and
- Transfer and use of technologies among BIMSTEC countries.

### **31. The fragile state of nuclear disarmament**

Recently, the Stockholm International Peace Research Institute (SIPRI) released its yearbook highlighting some worrying trends of the past year in international security. Read more on the SIPRI Yearbook 2021.

#### **Trends in military spending**

- During 2012-2021, military spending as a percentage of gross domestic product has largely been stable.
- Russia leads the charge in absolute numbers of nuclear inventory, however, it is the U.S. that has the largest number of deployed warheads.
- The U.K. has 225 nuclear weapons in its inventory, while France has 290, China has 350, India has 160, and Pakistan has 165. Israel is estimated to have 90 and North Korea 20.
- It is concerning to see how global discourse has created a sense of fear around China's military modernisation and its upward trend in nuclear weapons development.
- Besides, thousands of nuclear weapons held by the U.S. don't seem to attract a similar level of attention.

#### **What about global arms imports?**

- Military modernisation is seen to be a global trend. All nuclear weapon-owning states have stated and worked upon their intention to modernize multiple facets of their armed forces.
- The yearbook has highlighted India as being the top weapons importer during the 2017-2021 period. Other countries to feature in the top five arms importers list include Saudi Arabia, Egypt, China, and Australia.
- According to SIPRI, these five nation-states account for 38% of total global arms imports.

#### **Key developments/concerns flagged by the yearbook:**

- The yearbook mentions low-level border clashes between India and Pakistan, the civil war in Afghanistan, and the armed conflict in Myanmar as some of the worrying indicators of an unstable system.
- It also highlighted three causes of concern trends:
  - Chinese-American rivalry, involvement of state actors in conflicts
  - non-state actors in multiple conflicts
  - the challenge that climatic and weather hazards pose.
- It is important to note here that the threat posed by climate change seems to feature in the report only nominally.
- The marginal downsizing observed in the nuclear arsenal has come mostly from the U.S. and Russia dismantling retired warheads.
- The Russian invasion of Ukraine has raised some serious eyebrows because of the continuous rhetoric from the Kremlin over not shying away from the use of nuclear weapons.
- China's recent activities surrounding the construction of 300 new nuclear missile silos have also been turning heads.
- Over in the subcontinent, India and Pakistan seem to be making gains over their nuclear arsenal while also looking at the development and procurement of newer and more efficient forms of delivery systems.

#### **Has Iran inflated its military expenditure?**

- The SIPRI yearbook claims that while there were some advances over the rollout of the 2015 Joint Comprehensive Plan of Action, Iran increased its enrichment of Uranium-235 to 60% in 2021.
- However, some analysts believe that SIPRI has, over the years, overstated Iran's military expenditure. This is based on there not being a single Iranian exchange rate, resulting in a hyperinflated estimation of expenditure by SIPRI analysts.
- It is claimed that SIPRI is aware of this 'accusation' and will investigate the 'exchange rate issue'.

#### **Conclusion:**

- The muscular military policies of nations coupled with the continuous use of rhetoric that fuels public sentiment over the state's use of military assets make conditions ripe for the situation to further deteriorate.
- A strong political opposition would be needed to help keep the ruling dispensation in check. Furthermore, the two largest nuclear weapons-holding states need to take on a more engaging role in the international arena.

### **32. Indian interests at the WTO Ministerial Conference**



12th Ministerial Conference (MC12) of the World Trade Organization (WTO).

## World Trade Organization (WTO)

- WTO was established in 1995 after the Uruguay Round negotiations (1986-94)
- WTO replaced the General Agreement on Tariffs and Trade (GATT) that had been established in 1948.
  - - **Headquarters:** Geneva, Switzerland
    - **Members:** WTO has over 160 member countries which represent about 98% of global trade.
- WTO is the only global international organisation dealing with the rules of trade between nations.
- The key objective of the organisation is to ensure that global trade takes place as smoothly, predictably and freely as possible.
- All decisions at the WTO are made through consensus among member countries at various councils and committees.
- The WTO derives its income from contributions by its members and these contributions are based on a formula that considers member's share of international trade.

## Ministerial Conference of WTO

- The Ministerial Conference (MC) is the topmost decision-making body of the WTO.
  - - Ministerial conferences usually take place biennially (once every two years).
- It brings together all members of the WTO, all of which are countries or customs unions.
- The Ministerial Conference can take decisions on all matters under any of the multilateral trade agreements.

## 12th Ministerial Conference (MC12)

- The WTO's 12th Ministerial Conference took place in June 2022 in Geneva.
- This Conference was co-hosted by Kazakhstan as it was originally scheduled to be held in June 2020 in Nur-Sultan, Kazakhstan and was postponed due to the COVID-19 pandemic.
- "Geneva Package" was unveiled in the latest edition of the conference which includes agreements on
  - Relaxing patent norms to achieve global vaccine equity
  - Ensuring food security
  - Extending subsidies to the fisheries sector
  - Continuation of moratoriums in e-commerce industry

## **Important outcomes of the 12th Ministerial Conference (MC12)**

### **Discussion over Agriculture**

- The agreements on agriculture are said to be very significant for India.
- The main focus of the agreements on the subject was to ensure the availability, accessibility and affordability of food for those in need during humanitarian emergencies.
- India, which has been a key contributor to the World Food Programme (WFP) had held that it had never imposed export restrictions for procurement under the programme and said that a blanket exemption could impact its work in ensuring domestic food security.
  - This blanket exemption would have mandated India to comply with its WFP commitments irrespective of its domestic requirements.
- It has been agreed that member countries would not impose export bans or restrictions on food items purchased for humanitarian purposes of the WFP and this agreement would not stop member countries from implementing steps to ensure domestic food security.
- Decisions were taken that encouraged member countries with available surplus to release them to the international markets in compliance with WTO regulations.
- The agreements also gave rise to a work programme that will come up with steps to help LDCs (least-developed countries) and NFIDCs (Net Food Importing Developing Countries) improve their domestic food security and increase their agricultural output.
- However, the agreements failed to address issues like the permissible public stockholding threshold for domestic food security, domestic support for agriculture, cotton, and market access.

### **Agreements on fisheries sector**

- India succeeded in negotiating an agreement that eliminated subsidies to those involved in illegal and unregulated fishing.
  - The only exception for the continuation of subsidies for overfishing is when they are deemed necessary to establish a biologically sustainable level.
  - Overfishing means exploiting fish at a pace faster than they could replenish themselves.
- Declining fish stocks pose a threat of aggravating poverty and thereby affecting the lives and the livelihoods of fishing communities
- The agreements also meant that there will not be any restrictions on subsidies granted by developing or least-developed countries for fishing within their exclusive economic zones (EEZ)

### **Agreements on the moratoriums on electronic transmissions**

- Electronic transmission (ET) constitutes online deliveries such as music, e-books, films, software and video games.
  - Despite being ordered online, ET is different from other cross-border e-commerce as they are not delivered physically.
- Agreements were reached to extend the current moratorium on not imposing customs duties on electronic transmission (ET) until MC13
  - This move was supported by over 105 countries which included advanced economies such as the U.S., the U.K., Australia, China and Japan.
    - These countries felt that in the backdrop of the COVID pandemic, an extension of the moratorium would help ensure certainty and predictability for businesses and consumers.
  - India and South Africa had opposed the move by highlighting the fact that the data from the UN Conference on Trade and Development showed that the extension of duty-free market access due to the moratorium led to a loss of \$10 billion per annum globally and about 95% of it was borne by developing countries.
    - The custom duties have also been helpful in avoiding an unwanted increase in imports and also provide the required capital infusion for capacity building.
    - Further, they had also asked for more clarity on what constitutes electronic transmission.

### **33. The role of caste in economic transformation**

#### **Background:**

- The protests against the Agnipath programme, agitations against farm laws last year, and agitation for reservation by agriculture castes in the recent past are all indicative of jobless economic growth in India.
- India has been in a phase of **jobless growth** for at least two decades now, coupled with rising poverty and discontent in rural areas.
- Notably, India has not been able to generate a pattern of growth that produces jobs and **inclusive development** in the way most East Asian countries have done. In this context, the article analyses the divergent outcomes in structural economic transformation in the global South, between China and Southeast Asia on one side and India on the other hand examining the role of caste as a structural factor that has impeded economic transformation in India.

### Role of caste as a structural impediment in economic transformation:

- Caste impedes the economic transformation in India in the following ways.

#### Land ownership pattern:

- India has one of the **highest land inequalities in the world** today. The caste system has resulted in inequality in the land ownership pattern.
  - Land ownership pattern has been traditionally linked to the caste system with caste inequality in land ownership being a prominent trend in India. The unequal distribution of land was only further perpetuated by **British colonial land revenue policies**.
  - The **land reforms in the post-independence phase** largely excluded Dalits and lower castes. It mostly empowered intermediate castes at the expense of others in rural India.
  - The **Green revolution of the 1960s** only further strengthened the trend of unequal distribution of land because it was mostly the people with large land holdings that benefitted from the technological interventions that resulted in enhanced agricultural productivity. The castes that benefitted from the Green Revolution tightened their social control over others in rural India.
- The disparity in land ownership patterns affects access to political, social, and economic capital too. This inequality **affects the productive capacity of the population**.

#### Elite bias in education:

- The **elite bias in higher education and the historical neglect of mass education** being attributable to the caste bias in education has resulted in educational inequality between the different castes.

- **Human capital** is an important factor for economic growth and development as an educated workforce enhances productivity while entrepreneurship ability is increased through education and training in skill sets. The lack of adequate education and appropriate skill among the workforce has become a drag on the Indian economy.
- The success of the Chinese and other East Asian countries is mainly attributable to their focus on basic education in the initial years and on higher education in the subsequent times. They have also prioritized skilling of the population. Through this, they have been able to build adequate and quality human capital.

### **Barrier to entrepreneurship:**

- Caste through its rigid social control and networks facilitates economic mobility for some and erects barriers for others by mounting disadvantages on them. Castes that were already in control of trading and industrial spaces resisted the entry of others using the **social networks** built by them.
- This has acted as **barriers to economic diversification** among the predominantly agricultural sections of the society. Even those who had an economic surplus in farm sectors could not invest in non-farm modern sectors. Thus, social inequalities have mounted barriers for economic transition.
- This is in strong contrast to what was observed in Southeast Asia, where diversification into urban enterprises by agrarian capitalists was possible.

### **34. Pakistan's economic muddling and the IMF challenge**

The economic crisis in Pakistan.

#### **Details**

- The value of the Pakistani rupee (PKR) has dropped to an all-time low of 213 against the dollar on 21 June from 150 in April 2021.
- Further, Pakistan's foreign exchange reserves also have been depleting for one year.
  - As per the State Bank of Pakistan, the net foreign reserves have fallen to \$8.9 billion in June 2022 compared to \$17.2 billion in June 2021.
- The new government in Pakistan has increased the fuel price and has proposed to resume the petroleum development levy in the latest budget.
  - This would result in a further rise in oil and electricity prices, which has led to large-scale protests in the country.

- Moody's, which is a rating agency, downgraded Pakistan's outlook to negative due to "heightened external vulnerability risk" and the "ability to secure additional external financing".
- The discussions between the government and the International Monetary Fund (IMF) have not yielded results thus far.

### **The discussions between IMF and Pakistan**

- The future of Pakistan's economy is heavily dependent on whether the IMF resumes its support or not. However, Pakistan's relationship with the IMF has remained complicated.
- In recent years, there has been a sense of economic nationalism in Pakistan and it has preferred to approach countries such as China and Saudi Arabia with whom Pakistan shares a friendly relationship for assistance rather than the IMF.
- With a change in the leadership in Pakistan, the new government now expects the IMF to release payments, expand the assistance programme, and provide a longer duration to repay the payments.
- The IMF in its statement after its last meeting in May 2022 has expressed its willingness to help Pakistan but has some conditions regarding macroeconomic reforms.

### **Conditions put forth by IMF**

- The IMF mandates Pakistan to undertake measures to address the high inflation and the increased fiscal and current account deficits and extend sufficient protection to the vulnerable sections.
- The IMF does not want any deviations from the agreements, particularly with respect to fuel and power subsidies.
- The IMF also wants Pakistan to be transparent about its debt situation, including how much Pakistan owes to China, as a part of the China-Pakistan Economic Corridor (CPEC).

### **Path ahead for Pakistan**

- Subsidies are politically sensitive and with elections around the corner, it is a difficult decision to make.
- The IMF might accept to extend assistance after a few more assurances from the government. However, the relief may be less than what the government expects.
- In Pakistan, the budgets have remained populist; corruption has affected the economic governance, there is a lack of independence in the financial

institutions, export has continuously dropped and the fuel, oil and electricity subsidies remain very high.

- But the previous governments in Pakistan have looked for external bailouts by continuing to borrow from global institutions and other friendly countries.
- The economists in Pakistan have been urging macroeconomic reforms in this context.
- Experts point out that the assistance from countries like Saudi Arabia and China has come with hidden costs and conditions and mandates Pakistan to return the money if it deviates from the conditions.
- Experts have also drawn similarities between the present state of Pakistan with the economic crisis in Sri Lanka which later turned into a political turmoil.
  - Experts warn Pakistan of similar consequences if the issues such as the falling value of the rupee, declining foreign exchange reserves and rising fuel prices are left unaddressed.

### **35. The advent of 'app-solute' chaos in NREGA**

This article talks about the challenges associated with the National Mobile Monitoring Software application.

#### **National Mobile Monitoring Software application**

- The Ministry of Rural Development introduced the National Mobile Monitoring Software (NMMS) application in 2021.
- This application aims to improve citizen oversight and increase transparency in National Rural Employment Guarantee Act (NREGA) works.
- The app is deployed by NREGA Mates, local women at the panchayat level who are trained to monitor NREGA worksites.
- The major feature of the app is the real-time, photographed, geo-tagged attendance of every worker to be taken once in each half of the day.

#### **Challenges associated with the application**

- Compulsory attendance – NREGA wages are fixed based on the amount of work done every day, and the workers are not expected to clock a fixed amount of hours. This flexibility had contributed a lot to the success of NREGA.
  - However, the feature of marking the attendance twice a day mandates NREGA workers to be present at the worksite for the entire day or travel twice to mark their attendance. This is causing difficulty for the workers.

- Affects women workers – NREGA has traditionally had a higher share of women workers (54.7% in FY 2021-22) and has played a key role in transforming the working conditions for women in rural areas.
  - As the women have to balance the burden of household chores along with NREGA works, the feature of marking the attendance twice a day would significantly affect women workers.
- **Challenges with internet connectivity** – the app requires a stable network for real-time monitoring and internet connectivity is a major challenge in rural India.
  - This impacts the ability of the workers to mark their attendance and results in the loss of wages.
  - This problem has been reported in states like Kerala, Jharkhand and Tamil Nadu.
- **Impact on NREGA Mates** – the role of a NREGA Mate was envisaged to empower rural women to manage attendance and work measurement in their panchayats. But with the advent of the app, an individual must mandatorily have a smartphone to become a Mate.
  - This new condition disqualifies several women who do not own smartphones from becoming Mates and smartphone-owning men are likely to be given preference as Mates.
  - Further, women could become proxy Mates (officially registered, but men work and get paid).
  - Many individuals who are working as Mates say that adequate training has not been provided to them which is causing errors in recording workers' attendance resulting in delays or non-payments.
- **Problems in implementation** – With no records of physical attendance, there is no proof for workers of their attendance and work done which can be used by the workers as evidence.
  - Experts feel that this erodes transparency and increases chances for corruption as funds are siphoned off by faking attendance records.

## Recommendations

- Experts feel that rather than focusing on complex technological reforms, social audits must be strengthened.
  - Social audits are people-centric instruments, where the citizens of the panchayat play a key role in the functioning of NREGA.
  - Such social audits have worked efficiently, allowing the local right holders to participate in investment decisions and hold the authorities accountable.
- Any plans of reforms that are meant to improve citizen oversight and transparency are to be implemented only after thorough consultation and



discussion with all the stakeholders such as NREGA workers, functionaries, or government field officials.

## GS 3 : Economy, Science and Technology, Environment

### 1. What is Liquid Nano Urea?

During his visit to Gujarat, Prime Minister inaugurated the country's first liquid nano urea plant at Kalol.

#### Liquid Nano Urea (LNU)

- Urea is chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- LNU is essentially urea in the form of a nanoparticle.
- It is sprayed directly on the leaves and gets absorbed by the plant.
- Fertilisers in nano form provide a targeted supply of nutrients to crops, as they are absorbed by the stomata, pores found on the epidermis of leaves.
- According to IFFCO, liquid nano urea contains 4 per cent total nitrogen (w/v) evenly dispersed in water.
- The size of a nano nitrogen particle varies from 20-50 nm. (A nanometre is equal to a billionth of a metre.)

#### Significance of LNU

- This patented product is expected to not only **substitute imported urea**, but to also **produce better results in farms**.
- Apart from **reducing the country's subsidy bill**, it is aimed at **reducing the unbalanced and indiscriminate use of conventional urea**.
- It will help **increase crop productivity**, and reduce soil, water, and air pollution.

#### Using LNU

- The liquid nano urea produced by Indian Farmers Fertiliser Cooperative (IFFCO) Limited comes in a half-litre bottle priced at Rs 240, and carries no burden of subsidy currently.
- By contrast, a farmer pays around Rs 300 for a 50-kg bag of heavily subsidised urea.
- According to IFFCO, a bottle of the nano urea can effectively replace at least one bag of urea.

## How efficient is LNU?

- While conventional urea has an efficiency of about 25 per cent, the efficiency of liquid nano urea can be as high as 85-90 per cent.
- Conventional urea fails to have the desired impact on crops as it is often applied incorrectly, and the nitrogen in it is vaporized or lost as a gas.
- A lot of nitrogen is also washed away during irrigation.
- Liquid nano urea has a shelf life of a year, and farmers need not be worried about “caking” when it comes in contact with moisture.

## 2. Astra MK-I Air-to-Air Missile: Features, strategic significance

The Ministry of Defence has signed a contract with Bharat Dynamics Ltd (BDL) for the supply of the Astra Mark-1 for deployment on fighter jets of the Indian Air Force and Indian Navy.

### Astra Missile

- The Astra Mk-1 is a beyond visual range (BVR), air-to-air missile (AAM).
- The Astra project was officially launched in the early 2000s with defined parameters and proposed future variants.
- The missile has been designed and developed by the Defence Research and Development Organisation (DRDO).
- It will be deployed on fighter jets like Sukhoi-30 MKI and Tejas of the IAF and the Mig-29K of the Navy.
- BVM missiles are capable of engaging beyond the range of 20 nautical miles or 37 kilometres.

### Range and its Variants

- While the range for Astra Mk-1 is around 110 km, the Mk-2 with a range over 150 km is under development and Mk-3 version with a longer range is being envisaged.
- One more version of Astra, with a range smaller than Mk-1 is also under development.

### Strategic significance

- The missile has been designed based on requirements specified by the IAF for BVR as well as close-combat engagement, **reducing the dependency on foreign sources.**
- AAMs with BVR capability **provides large stand-off ranges** to own fighter aircraft.

- It can **neutralise adversary airborne assets without exposing** adversary air defence measures.
- Stand-off range means the missile is launched at a distance sufficient to allow the attacking side to evade defensive fire from the target.
- Astra is **technologically and economically superior to many such imported missile**
- The missile can travel at speeds more than four times that of sound and can reach a maximum altitude of 20 km, making it extremely flexible for air combat.

### 3. For India, a lesson in food security from Sri Lanka

India needs to have a strategy of self-reliance in basic foods, including edible oils.

#### Contrasting cases of Sri Lanka and Saudi Arabia

- Sri Lanka, a country with 21.5 million population imported dairy products valued at \$333.8 million in 2020 and \$317.7 million in 2021.
- The island nation's imports of whole milk powder (WMP) alone were 89,000 tonnes and 72,000 tonnes in these two years.
- The 89,000 tonnes of powder imported in 2020 would have, thus, "produced" almost 2.1 million litres per day (MLPD) equivalent of milk.
- This is as against the 1.3 MLPD that Sri Lanka produces from its own cows and buffaloes.
- It translates into an import dependence of over 60 per cent.
- At the other end, we have Saudi Arabia, home to over 35 million inhabitants (including immigrants) and also the world's largest vertically integrated dairy company.
- Almarai Company has six dairy farms producing more than 3.5 MLPD of milk.
- The animals are sourced from the US and Europe.
- The entire feed and also forage given to them are procured from abroad.
- Why is Saudi Arabia taking such pains to produce its own milk?
- The answer is food security.
- The Saudis – other Persian Gulf countries have also copied the Almarai model – are prepared to pay any price when it comes to ensuring the availability of basic food like milk.

#### Lessons for India: Reducing import dependence on edible oil

- India annually imports 13.5-14.5 million tonnes of vegetable oils, again roughly **60 per cent of its total consumption.**

- Low international prices meant that the import bill, though high, fell from \$9.85 billion in 2012-13 to \$9.67 billion in 2019-20.
- However, in the last couple of years, retail prices of most oils more than doubled
- The value of India's vegetable oil imports surged to a record \$19 billion in 2021-22.

## Conclusion

As a country with a population many times that of Sri Lanka and Saudi Arabia, India needs to have a strategy of self-reliance in basic foods.

## 4. Gig Workers' Rights

The Union Labour Ministry is organizing a program aimed at sharing information and good experiences on policies and global practices relating to gig and platform workers and their social security.

### What is the Gig Economy?

- In a gig economy, temporary, flexible jobs are commonplace and companies tend toward hiring independent contractors and freelancers instead of full-time employees.
- A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career. e.g Employee models of Uber, Ola, Swiggy etc
- In this economy, tech-enabled platforms connect the consumer to the gig worker to hire services on a short-term basis.
- Gig workers include self-employed, freelancers, independent contributors and part-time workers.

### Where does gig culture exist in Indian Economy?

- Sectors such as media, real estate, legal, hospitality, technology-help, management, medicine, allied and education are already operating in gig culture.
- The gig economy can benefit workers, businesses, and consumers by making work more adaptable to the needs of the moment and demand for flexible lifestyles.

## Key Drivers for Gig Economy

- **Unconventional work approach by millennials:** Hectic lifestyles of employees in private sectors have created a negative perception of full-time employment among millennials.
- **Emergence of a start-up culture:** The start-up ecosystem in India has been developing rapidly. For start-ups, hiring full-time employees leads to high fixed costs and therefore, contractual freelancers are hired for non-core activities.
- **MNCs are hiring contractual employees:** MNCs are adopting flexi-hiring options, especially for niche projects, to reduce operational expenses after the pandemic.
- **Rise in freelancing platforms:** Rise in freelancing platforms has also aided in the development of the gig economy.
- **Business Models:** Gig employees work on various compensation models such as fixed-fee (decided during contract initiation), time & effort, actual unit of work delivered and quality of outcome.
- **Impact of Covid-19:** Many laid-off employees are focusing on developing skills to avail freelance job opportunities and become a part of this burgeoning economy.

## Why is Gig Economy preferred by workers?

- **Profit through multiple work:** One can work on freelancing as well as work full-time somewhere else.
- **Women empowerment:** It is very beneficial for women who work on this concept when they cannot continue their work or take a break from career due to marriage or child birth.
- **Leisure and dependency:** Retired people can stay active after retirement as this will keep them engaged away from loneliness and depression and can earn as well on their own.
- **Flexibility and diversity to the workers:** It offers flexibility when workers can work according to their convenience and schedule rather than routine like in full-time jobs.
- **Work from home:** The travel costs and energy to travel to the workplace is reduced.

## Why is Gig Economy preferred by Employers?

- **Efficiency, efficacy and productivity of workers** in the gig economy are much more than that of a stable full-time job.
- **More economical for employers**-when employment givers can't afford to hire full-time workers, they hire people for specific projects and pay them.

- Start-up companies and entrepreneurs – **who do not have big financial space** – can grow only if they can leverage the services of contract employees or freelancers.
- In a gig economy, **businesses save resources** in terms of benefits, office space and training.
- **Competition and efficiency** among workers is improved.

### Challenges faced in Gig economy

- **No perks and benefits:** There are no labour welfare emoluments like pension, gratuity, etc. for the workers.
- **Job insecurity:** Gig workers may face unfair termination. They may also attain minimum wages and less paid leave.
- **No legal protection:** Workers do not have the bargaining power to negotiate a fair deal with their employers.
- **Unionization** of workers will be difficult.
- **Confidentiality** of documents etc. of the workplace is not guaranteed
- **Urban nature:** The gig economy is not accessible for people in many rural areas where internet connectivity and electricity is unavailable.

### Way Forward

- The gig economy has been on the rise and is expected to beat the pre-pandemic estimates due the expected influx of gig workers transitioning from full-time employment.
- While the government has taken the initial steps to ensure social security of gig workers, the '**Code on Social Security**' needs to be fine-tuned.

## 5. GST Council must uphold fiscal federalism

The recent ruling of the Supreme Court held that the states were free to use means of persuasion ranging from collaboration to contestation.

### Simultaneous or concurrent powers under Article 246A

- Article 246A confers simultaneous or concurrent powers on Parliament and the state legislatures to make laws relating to GST.
- This article is in sharp contrast to the constitutional scheme that prevailed till 2017.
- It clearly demarcated taxing powers between the Centre and states with no overlaps.
- After 2017, several **central and state** levies were subsumed into GST.

- Each state was to have its own GST Act, all of them being almost identical to the Central GST Act.
- Inter-state supplies and imported goods are **liable to IGST**.

### Composition of GST Council

- The GST Council has the Union finance minister as the chairperson and the Union minister of state in charge of revenue or finance as a member.
- Centre has one-third voting power, 31 states (including two Union Territories) share the remaining two-thirds of the vote.
- The GST Council has a total of 33 members.
- Out of a total of 33 votes, 11 belong to the Centre and 22 votes are shared by 31 states/UT, with each state/UT having a 0.709 vote.
- Any decision of the GST Council requires a three-fourth majority or a minimum of 25 votes.
- As the Centre has 11 votes, it requires an additional 14 votes.
- Unlike so many statutes, Article 279A has made no provision to make the decision of the majority binding on the dissenting states.
- Paragraph 2.73 of the **Select Committee Report on the 122nd Constitution (Amendment) Bill, 2014**, noted that this voting pattern was to maintain a fine balance as, in a federal constitution, the dominance of one over the other was to be disallowed.

### Role of GST Council

- Under **Article 279A**, the GST Council has to make “recommendations” on various topics including the tax rate and exemptions.
- The Union of India argued that the “constitutional architecture” showed that **Articles 246A and 279A, when read together**, made the GST Council the ultimate policy-making and decision-making body for framing GST laws.
- The GST Council was unique and incomparable to any other constitutional body and **its recommendations would override the legislative power of Parliament** and state legislatures.
- Neither of them could legislate on GST issues independent of the recommendations of the GST Council.
- The argument went further: On a combined reading of Article 279A, the provisions of the IGST and CGST Acts and the recommendations of the GST Council were transformed into legislation.
- The Supreme Court rightly noted that several sections in the state GST laws, CGST and in IGST, cast a duty even on dissenting states to issue notifications to implement the recommendations of the GST Council.

## Observations on federalism

- Delving into legislative history, the court ruled that a draft Article 279B, which provided for a GST Disputes Settlement Authority, was omitted because it **would have effectively overridden the sovereignty of Parliament** and the state legislatures, and diminished the **fiscal autonomy of the states**.
- It was desirable, the Court said, to have some level of friction, some amount of state contestation, some deliberation-generating froth in our democratic system.
- Putting to rest any controversy, the court held that the recommendations of the GST Council had only a persuasive value.
- To regard them as binding edicts would disrupt fiscal federalism because both the Union and states were **conferred equal power to legislate on GST**.
- **Rule-making power bound by recommendations of GST Council:** The Court held that the state governments and Parliament, while exercising their rule-making powers under the provisions of the State GST Acts, CGST & IGST Acts, **are bound by the recommendations of the GST Council**.
- **States can amend GST laws:** But even this did not mean that all recommendations of the GST Council are binding on state legislatures or Parliament to enact primary pieces of legislation on GST.
- In effect, states can amend their GST laws if they so choose.

## Way forward

- If the GST Council **meets periodically** as mandated and there is active participation of the states in making recommendations, no state will oppose a recommendation that has been carefully deliberated and is in the national interest.

## Conclusion

Indeed, there is little chance of cracks developing in the GST edifice as long as the spirit of cooperative and collaborative federalism prevails.

## 6. UAPA

The Supreme Court recently put freeze on sedition proceedings under the Section 124A (sedition law) of the IPC for persons who have also been charged under the Unlawful Activities (Prevention) Act (UAPA) of 1967 in the same case or separately.



### What is the news?

- This freeze has rejected bails for some journalist and JNU activists who also face charges under the UAPA (for anti-India sloganeering and activities).
- Now they have been accused of making anti-national activities during the Delhi Riots.

### Why is UAPA significant?

- An amendment made in 2019 has made the Act even more powerful.
- Now it can designate individuals, and not just associations, as 'terrorists'.

### Unlawful (Activities) Prevention Act (UAPA)

- The UAPA is aimed at effective prevention of unlawful activities associations in India.
- Its main objective was to make powers available for dealing with activities directed against the integrity and sovereignty of India
- It is an upgrade on the Terrorist and Disruptive Activities (Prevention) Act TADA, which was allowed to lapse in 1995 and the Prevention of Terrorism Act (POTA) was repealed in 2004.
- It was originally passed in 1967 under the then Congress government led by former Prime Minister Indira Gandhi.
- Till 2004, "unlawful" activities referred to actions related to secession and cession of territory. Following the 2004 amendment, "terrorist act" was added to the list of offences.

### Major feature: Designation of Terrorists

- The Centre had amended UAPA, 1967, in August 2019 to include the provision of designating an individual as a terrorist.
- Before this amendment, only organisations could be designated as terrorist outfits.
- Section 15 of the UAPA defines a "terrorist act" as any act committed with intent to threaten or likely to threaten the unity, integrity, security, economic security, or sovereignty of India or with intent to strike terror or likely to strike terror in the people or any section of the people in India or in any foreign country.
- The original Act dealt with "unlawful" acts related to secession; anti-terror provisions were introduced in 2004.

### **Who makes such designation?**

- The UAPA (after 2019 amendment) seeks to empower the central government to designate an individual a “terrorist” if they are found committing, preparing for, promoting, or involved in an act of terror.
- A similar provision already exists in Part 4 and 6 of the legislation for organizations that can be designated as a “terrorist organisations”.

### **How individuals are declared terrorists?**

- The central government may designate an individual as a terrorist through a notification in the official gazette, and add his name to the schedule supplemented to the UAPA Bill.
- The government is not required to give an individual an opportunity to be heard before such a designation.
- At present, in line with the legal presumption of an individual being innocent until proven guilty, an individual who is convicted in a terror case is legally referred to as a terrorist.
- While those suspected of being involved in terrorist activities are referred to as terror accused.

### **What happens when an individual is declared a terrorist?**

- The designation of an individual as a global terrorist by the United Nations is associated with sanctions including travel bans, freezing of assets and an embargo against procuring arms.
- The UAPA, however, does not provide any such detail.
- It also does not require the filing of cases or arresting individuals while designating them as terrorists.

### **Removing the terrorist tag**

- The UAPA gives the central government the power to remove a name from the schedule when an individual makes an application.
- The procedure for such an application and the process of decision-making will be decided by the central government.
- If an application filed by an individual declared a terrorist is rejected by the government, the UAPA gives him the right to seek a review within one month after the application is rejected.
- The central government will set up the review committee consisting of a chairperson (a retired or sitting judge of a High Court) and three other members.

- The review committee is empowered to order the government to delete the name of the individual from the schedule that lists “terrorists” if it considers the order to be flawed.
- Apart from these two avenues, the individual can also move the courts to challenge the government’s order.

## 7. International Liquid Mirror Telescope (ILMT)

The four-meter International Liquid Mirror Telescope (ILMT) saw the first light recently, gazing out from its vantage on Devasthal, a hill in Uttarakhand.

### What is the ILMT?

- The telescope has been built by a collaboration of scientists from Canada, Belgium and India.
- It is located at an altitude of 2,450 metres on the Devasthal Observatory campus of the Aryabhata Research Institute of Observational Sciences (ARIES) in Nainital district.
- A large pool of mercury placed in a vessel is spun around so fast that it curves into a parabolic shape. Since mercury is reflective, this shape helps in focusing the reflected light.
- Nearly 50 litres of mercury, weighing close to 700 kilograms, is spun hard to form a paraboloid mirror of just 4 mm thickness and a diameter of about 4 metres.
- A thin sheet of mylar protects the mercury from the wind.
- Once it starts making observations, the telescope will collect gigabytes of data, which will need to be analysed using artificial intelligence and machine learning (AI and ML) tools.

### It’s utility

- The telescope will make sky surveys possible and obtain images that can help observe transient phenomena.
- It will help analyse events such as supernovae and record the presence of space debris or meteorites – basically, watch the skies.

### What is the first image?

- The first image made by the telescope consisted of several stars and a galaxy, NGC 4274, which is 45 million light years away.

- The telescope, having a primary mirror that is liquid, cannot be turned and pointed in any direction.
- It “stares” at the zenith and watches the sky as the earth rotates, thereby giving a view of different objects.
- This property can be used to scan and survey the sky, and observe transients and moving objects such as meteorites.
- It will work in tandem with the existing 3.6-metre Devasthal Optical Telescope.

## 8. Posidonia Australis: World’s Largest Plant

The world’s largest plant has recently been discovered off the West Coast of Australia: a seagrass 180 km in length.

### Posidonia australis

- The ribbon weed, or *Posidonia australis*, has been discovered in Shark Bay by a group of researchers from Flinders University and The University of Western Australia.
- These researchers have also found that the plant is 4,500 years old, is sterile, has double the number of chromosomes than other similar plants.
- It has managed to survive the volatile atmosphere of the shallow Shark Bay.

### So how remarkable is this plant’s size?

- The ribbon weed covers an area of 20,000 hectares.
- The next on the podium, the second largest plant, is the clonal colony of a quaking Aspen tree in Utah, which covers 43.6 hectares.
- The largest tree in India, the Great Banyan in Howrah’s Botanical Garden, covers 1.41 hectares.

### If it is so large, how come it has just been discovered?

- The existence of the seagrass was known, that it is one single plant was not.
- Researchers were interested in what they then thought was a meadow because they wanted to study its genetic diversity, and collect some parts for seagrass restoration.

### How did it grow, and survive for, so long?

- Sometime in the Harappan era, a plant took root in the Shark Bay.
- Then it kept spreading through its rhizomes, overcoming everything in its way, and here we are today.

- Ribbon weed rhizomes can usually grow to around 35cm per year, which is how the scientists arrived at its lifespan of 4,5000 years.
- The researchers found that the ribbon weed cannot spread its seeds, something that helps plants overcome environmental threats.
- Also, Shark Bay sees fluctuations in temperature and salinity and gets a lot of light, conditions challenging for any plant.

### **Ecological significance**

- Because seagrass performs a vital role in the environment, and if some of it is hardy, it is good news for everyone in a world threatened by climate change.
- In India, seagrass is found in many coastal areas, most notably in Gulf of Mannar and Palk Strait.
- Apart from being home to a variety of small organisms, seagrass trap sediments and prevent water from getting muddy, absorb carbon from the atmosphere, and prevent coastal erosion.

### **9. E-Waste Recycling in India**

Attero Recycling, one of India's largest electronic waste management companies, is set to invest close to \$1 billion in expanding their electronic waste recycling facilities in India.

#### **E-waste Management: A tricky task**

- E-waste management is a complicated process given the multitude of actors that are involved in the process.
- The major stakeholders in the value chain include importers, producers/manufacturers, retailers (businesses/government/others), consumers (individual households, businesses, government and others), traders, scrap dealers, disassemblers/dismantlers and recyclers.
- To critically assess each in the different stages of processing, it is important to understand the e-waste value chain.
- The process involves four stages: generation, collection, segregation and treatment/disposal.

#### **India's regulatory ecosystem**

- Indian electronics sector boomed in the last decade.
- Increased production and penetration of imported electronics items led to an accelerated e-waste generation that necessitated regulatory control over the sector.

- India has Electronic Waste (Management and Handling) Rules 2011 in place since . Its scope was expanded in 2016 and 2018 through amendments.

### Provisions of the 2011 Rules

- To streamline e-waste management, the Government introduced **Extended Producer Responsibility (EPR)** whereby producers were required to collect and recycle electronic items.
- Since manufacturers were incurring the disposal cost, their designs would incorporate less toxic and easily recyclable materials, thereby reducing input material requirements.

### Inherent flaws in Implementation

- **Recycling:** Less than five percent of the waste is treated through formal recycling facilities.
- **Informal sector:** The rest is handled by the informal sector with very little enforcement of environmental and occupational safety norms.
- **Weak Regulations:** A deeper analysis revealed that the EPR regulations in India were not quantified through collection or recycling targets as in other countries with better implementation framework and mechanisms.
- **Lack of incentivization:** In the absence of targets, producers had little incentive to ensure the collection of their used products.

### Current scenario and issues in e-waste recycling

- **Crude and Scrappage:** As of today, some 95% of e-waste is managed by the informal sector which operates under inferior working conditions and relies on crude techniques for dismantling and recycling.
- **Infrastructure lacunae:** Another important issue is the lack of sufficient metal processing infrastructure which is why recyclers have to export materials to global smelters.
- **Price competencies:** As aggregators are mostly informal, they demand up-front cash payments.
- **Bloomed informal network:** The informal network is well-established and rests on social capital ties that PROs have yet to establish and are hence insulated from reaching the viable number of aggregators.
- **Policy failure:** Policy changes have tried repeatedly to formalize the sector, but issues of implementation persist on the ground.

## Way forward

- **Effective design:** Since India is highly deficient in precious mineral resources, there is a need for a well-designed, robust and regulated e-waste recovery regime that would generate jobs and wealth.
- **Consumer responsibility:** The consumers must responsibly consume the product for its useful life and then weigh between the chances of repair or disposal with utmost consciousness towards the environment.
- **Recyclable products:** On the supply side, e-waste can be reduced when producers design electronic products that are safer, and more durable, repairable and recyclable.
- **Reuse:** Manufacturers must reuse the recyclable materials and not mine rare elements unnecessarily to meet new production.
- **Commercial recycling:** Rather than hoping that informal recyclers become formal it would be more feasible for companies and the state to design programs ensure e-waste easily makes its way to proper recyclers.

## 10. Keep ESZ of 1 Km around Forests: SC

The Supreme Court has directed that every protected forest, national park and wildlife sanctuary across the country should have a mandatory eco-sensitive zone (ESZ) of a minimum one km starting from their demarcated boundaries.

### Why such move?

- The purpose of declaring ESZs around national parks, forests and sanctuaries is to create some kind of a “shock absorber” for the protected areas.
- These zones would act as a transition zone from areas of high protection to those involving lesser protection.

### What are the Eco-sensitive Zones (ESZs)?

- Eco-Sensitive Zones (ESZs) or Ecologically Fragile Areas (EFAs) are areas notified by the MoEFCC around Protected Areas, National Parks and Wildlife Sanctuaries.
- The purpose of declaring ESZs is to create some kind of “shock absorbers” to the protected areas by regulating and managing the activities around such areas.
- They also act as a transition zone from areas of high protection to areas involving lesser protection.

### How are they demarcated?

- The Environment (Protection) Act, 1986 does not mention the word “Eco-Sensitive Zones”.
- However, Section 3(2)(v) of the Act, says that Central Government can restrict areas in which any industries, operations or processes or class of industries, operations or processes shall be carried out or shall not, subject to certain safeguards.
- Besides Rule 5(1) of the Environment (Protection) Rules, 1986 states that central government can prohibit or restrict the location of industries and carrying on certain operations or processes on the basis of certain considerations.
- The same criteria have been used by the government to declare No Development Zones (NDZs).

### Defining its boundaries

- An ESZ could go up to 10 kilometres around a protected area as provided in the Wildlife Conservation Strategy, 2002.
- Moreover, in the case where sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, are beyond 10 km width, these should be included in the ESZs.
- Further, even in the context of a particular Protected Area, the distribution of an area of ESZ and the extent of regulation may not be uniform all around and it could be of variable width and extent.

## 11. What is D2M Technology?

The Department of Telecommunications (DoT) and India’s public service broadcaster Prasar Bharati are exploring ‘direct-to-mobile’ (D2M) broadcasting.

### What is D2M Technology?

- The technology is based on the convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV.
- It would be similar to how people listen to FM radio on their phones, where a receiver within the phone can tap into radio frequencies.
- Using D2M, multimedia content can also be beamed to phones directly.



## Benefits of D2M

- It allows broadcasting video and other forms of multimedia content directly to mobile phones, without needing an active internet connection.
- It promises to improve consumption of broadband and utilisation of spectrum.

## Why need D2M?

- The idea behind the technology is that it can possibly be used to directly broadcast content related to citizen-centric information.
- It can be further used to counter fake news, issue emergency alerts and offer assistance in disaster management, among other things.
- Apart from that, it can be used to broadcast live news, sports etc. on mobile phones.
- More so, the content should stream without any buffering whatsoever while not consuming any internet data.

## What could be the consumer and business impact of this?

- For consumers, a technology like this would mean that they would be able to access multimedia content from Video on Demand (VoD) or Over The Top (OTT) content platforms.
- This will be without having to exhaust their mobile data, and more importantly, at a nominal rate.
- The technology will also allow people from rural areas, with limited or no internet access, to watch video content.
- For businesses, one of the key benefits of the technology is that it can enable telecom service providers to offload video traffic from their mobile network onto the broadcast network.
- It thus helps them to decongest valuable mobile spectrum.
- This will also improve usage of mobile spectrum and free up bandwidth which will help reduce call drops, increase data speeds etc.

## What is the government doing to facilitate D2M technology?

- The DoT has set up a committee to study the feasibility of a spectrum band for offering broadcast services directly to users' smartphones.
- Band 526-582 MHz is envisaged to work in coordination with both mobile and broadcast services.
- DoT has set up a committee to study this band.
- At the moment, this band is used by the Ministry of Information & Broadcasting across the country for TV transmitters.

### What are the possible challenges to the technology's rollout?

- Bringing key stakeholders like mobile operators onboard will be the biggest challenge in launching D2M technology on a wide scale.
- A mass roll out of the technology will entail changes in infrastructure and some regulatory changes.

## 12. Chinese astronauts enter Tiangong Space Station

Three Chinese astronauts floated into the country's new Tiangong space station for a three-month mission.

### Tiangong Space Station

- Tiangong means "Heavenly Palace".
- It was 10.4 metres long and 3.35 metres wide at its widest point, and weighed 8.6 metric tonnes.
- It was launched on September 15, 2016 and, in late 2016, hosted two Chinese astronauts for 30 days in what was China's longest manned space mission so far.
- The recently decommissioned space lab followed the Tiangong-1, China's first space station, which crashed into the southern Pacific Ocean on April 1, 2018 after Chinese scientists lost control of the spacecraft.
- China had launched Tiangong-1 in 2011 as proof-of-concept of technologies for future stations.
- The Tiangong will be fully operational by the end of 2022.

### Features of this Space Station

- The significant feature of Tiangong is its two robotic arms.
- The US has previously expressed concern over its ability to grab objects including satellites from space.
- The 10-meter-long arm was in action previously seen in action successfully grabbing and moving a 20 tonne Tianzhou-2 cargo ship in a test.
- One of the noteworthy tasks for the Shenzhou-14 crew is to test and operate the large and small
- The small arm is quite flexible and can perform operations with greater precision.

### 13. What are eVTOL Aircrafts?

The Union Civil Aviation Ministry is exploring the possibility of inviting manufacturers of Electric Vertical Take-off and Landing (eVTOL) aircraft to set up base in India.

#### What is eVTOL?

- eVTOL aircraft is one that uses electric power to hover, take off, and land vertically.
- Most eVTOLs also use what is called as distributed electric propulsion technology which means integrating a complex propulsion system with the airframe.
- There are multiple motors for various functions; to increase efficiency; and to also ensure safety.
- It works on electric propulsion based on progress in motor, battery, fuel cell and electronic controller technologies.
- It is also fuelled by the need for new vehicle technology that ensures urban air mobility (UAM).

#### Features of eVTOL

- eVTOL is emerging as a “runway independent technological solution” for the globe’s transportation needs.
- There are an estimated 250 eVTOL concepts or more being fine-tuned to bring alive the concept of UAM.
- Some of these include the use of multi-rotors, fixed-wing and tilt-wing concepts backed by sensors, cameras and even radar.
- The key word here is “autonomous connectivity”. Some of these are in various test phases.
- In short, eVTOLs have been likened to “a third wave in an aerial revolution”; the first being the advent of commercial flying, and the second, the age of helicopters.

#### What are the developments in powering eVTOLs?

- The roles eVTOLs adopt depends on battery technology and the limits of onboard electric power.
- Power is required during the key phases of flight such as take-off, landing and flight (especially in high wind conditions).
- There is a “Diamond Nuclear Voltaic (DNV) technology” using minute amounts of carbon-14 nuclear waste encased in layered industrial diamonds to create self-charging batteries.

- There are some industry experts who are questioning the use of only batteries and are looking at hybrid technologies such as hydrogen cells and batteries depending on the flight mission.

### What are the challenges?

- As the technology so far is a mix of unpiloted and piloted aircraft, the areas in focus include “**crash prevention systems**”.
- There are also issues such as ensuring safety in case of **power plant or rotor failure**.
- Aircraft protection from **cyberattacks** is another area of focus.
- A third area is in **navigation and flight safety** and the use of technology when operating in difficult terrain, unsafe operating environments, and also bad weather.

### 14. World's first Fishing Cat Census done in Chilika

The Chilika Lake, Asia's largest brackish water lagoon, has 176 fishing cats, according to a census done by the Chilika Development Authority (CDA) in collaboration with the Fishing Cat Project (TFCP).

#### About Fishing Cats

- About twice the size of a typical house cat, the fishing cat is a feline with a powerful build and stocky legs.
- It is an adept swimmer and enters water frequently to prey on fish as its name suggests.
- It is known to even dive to catch fish.
- It is nocturnal and apart from fish also preys on frogs, crustaceans, snakes, birds, and scavenges on carcasses of larger animals.
- It is capable of breeding all year round but in India its peak breeding season is known to be between March and May.

#### Conservation status

- IUCN Red List: **Endangered**
- CITES: **Appendix II**
- Indian Wildlife (Protection) Act, 1972: **Schedule I**

#### Various threats

- One of the major threats facing the fishing cat is the destruction of wetlands, which is its preferred habitat.

- As a result of human settlement, drainage for agriculture, pollution, and wood-cutting most of the wetlands in India are under threat of destruction.
- Another threat to the fishing cat is the depletion of its main prey-fish due to unsustainable fishing practices.
- It is also occasionally poached for its skin.

## 15. How to keep inflation under control

The economy now seems to be largely out of the shadow of Covid-19, and only a notch better than in 2019-20. But the big question remains: can India rein in the raging inflation that is at 7.8 per cent (CPI for April 2022), with food CPI at 8.4 percent, and WPI at more than 15 per cent?

### Need for bold steps on three fronts to tackle inflation

- Unless bold and innovative steps are taken at least on three fronts, GDP growth and inflation both are likely to be in the range of 6.5 to 7.5 per cent in 2022-23.
- **1] Tightening of loose monetary policy:** The Reserve Bank of India (RBI) is mandated to keep inflation at 4 per cent, plus-minus 2 per cent.
- The RBI has already started the process of **tightening monetary policy** by raising the repo rate, albeit a bit late.
- It is expected that by the end of 2022-3, the repo rate will be at least 5.5 per cent, if not more.
- It will still stay **below the likely inflation rate** and therefore depositors will still lose the real value of their money in banks with negative real interest rates.
- That only reflects an **inbuilt bias in the system** – in favour of entrepreneurs in the name of growth and **against depositors**, which ultimately results in **increasing inequality in the system**.
- **2] Prudent fiscal policy:** Fiscal policy has been running loose in the wake of Covid-19 that saw the fiscal deficit of the Union government soar to more than 9 per cent in 2020-21 and 6.7 per cent in 2021-22, but now needs to be tightened.
- Government needs to reduce its fiscal deficit to less than 5 per cent, never mind the FRMB Act's advice to bring it to 3 per cent of GDP.
- However, it is difficult to achieve when enhanced food and fertiliser subsidies, and cuts in duties of petrol and diesel will cost the government at least Rs 3 trillion more than what was provisioned in the budget.
- **3] Rational trade policy:** Export restrictions/bans go beyond agri-commodities, even to iron ore and steel, etc. in the name of taming inflation.
- But **abrupt export bans are poor trade policy** and reflect only the panic-stricken face of the government.

- A more mature approach to filter exports would be through a gradual process of **minimum export prices and transparent export duties for short periods of time**, rather than abrupt bans, if at all these are desperately needed to favour consumers.
- **Liberal import policy:** A prudent solution to **moderate inflation** at home lies in a **liberal import policy**, reducing tariffs across board.

### Way forward

- If India wants to be atmanirbhar (self-reliant) in critical commodities where import dependence is unduly high, it must focus on two oils – crude oil and edible oils.
- In crude oil, India is almost 80 per cent dependent on imports and in edible oils imports constitute 55 to 60 per cent of our domestic consumption.
- In both cases, agriculture can help.
- **Ethanol production:** Massive **production of ethanol from sugarcane and maize**, especially in eastern Uttar Pradesh and north Bihar, where water is abundant and the water table is replenished every second year or so through light floods, is the way to reduce import dependence in crude oil.
- **Palm plantation:** In the case of edible oils, a large programme of palm plantations in coastal areas and the northeast is the right strategy.

### 16. What are Bad Banks?

The finance ministry said the Rs 6,000-crore National Asset Reconstruction Company (NARCL) or bad bank is expected to take over the first set of non-performing accounts of banks next month.

#### What is a Bad Bank?

- A bad bank conveys the impression that it will function as a bank but has bad assets to start with.
- Technically, it is an asset reconstruction company (ARC) or an asset management company that takes over the bad loans of commercial banks, manages them and finally recovers the money over a period of time.
- Such a bank is not involved in lending and taking deposits, but helps commercial banks clean up their balance sheets and resolve bad loans.
- The takeover of bad loans is normally below the book value of the loan and the bad bank tries to recover as much as possible subsequently.

## **Bad Banks to be established**

- The NARCL-IDRCL structure is the new bad bank.
- The National Asset Reconstruction Company Limited (NARCL) has already been incorporated under the Companies Act.
- It will acquire stressed assets worth about Rs 2 lakh crore from various commercial banks in different phases.
- Another entity – India Debt Resolution Company Ltd (IDRCL), which has also been set up – will then try to sell the stressed assets in the market.

## **How will the NARCL-IDRCL work?**

- The NARCL will first purchase bad loans from banks.
- It will pay 15% of the agreed price in cash and the remaining 85% will be in the form of “Security Receipts”.
- When the assets are sold, with the help of IDRCL, the commercial banks will be paid back the rest.
- If the bad bank is unable to sell the bad loan, or has to sell it at a loss, then the government guarantee will be invoked.
- The difference between what the commercial bank was supposed to get and what the bad bank was able to raise will be paid from the Rs 30,600 crore that has been provided by the government.

## **Will a bad bank resolve matters?**

- From the perspective of a commercial bank saddled with high NPA levels, it will help.
- That’s because such a bank will get rid of all its toxic assets, which were eating up its profits, in one quick move.
- When the recovery money is paid back, it will further improve the bank’s position.
- Meanwhile, it can start lending again.

## **Why do we need a bad bank?**

- The idea gained currency during Rajan’s tenure as RBI Governor.
- The RBI had then initiated an asset quality review (AQR) of banks and found that several banks had suppressed or hidden bad loans to show a healthy balance sheet.
- However, the idea remained on paper amid lack of consensus on the efficacy of such an institution.
- ARCs have not made any impact in resolving bad loans due to many procedural issues.

- While commercial banks resume lending, the so-called bad bank, or a bank of bad loans, would try to sell these “assets” in the market.

### Good about the bad banks

- The problem of NPAs continues in the banking sector, especially among the weaker banks.
- The bad bank concept is in some ways similar to an ARC but is funded by the government initially, with banks and other investors co-investing in due course.
- The presence of the government is seen as a means to speed up the clean-up process.
- Many other countries had set up institutional mechanisms such as the Troubled Asset Relief Programme (TARP) in the US to deal with a problem of stress in the financial system.

## 17. Challenges in global growth recovery

The global economy was well on its path to recovery until the invasion of Ukraine by Russia.

### Uncertainties in global growth prospects

- **Divergent economic recoveries:** Economic prospects have worsened since the Ukraine crisis, worsening the **divergence** between the economic recoveries of advanced economies and those of the developing ones.
- The prevailing uncertainties in global growth prospects come in the aftermath of frequent disruptions to worldwide supply chains in the last two years.
- Against this background, two key macroeconomic variables have a persistent effect on growth rebound.
- **1] Price pressure:** There is tenacious price pressure, leading to policy trade-offs especially in developing economies.
- **2] Capital outflow:** There have been capital outflows and a tightening of financial conditions, affecting investment and growth in the medium and long term.

#### 1] Price pressure

- **Global concern:** In some of the advanced economies, inflation has reached its highest level in the last 40 years.
- The major contributors to high inflation are **energy and food prices**.
- A spike in oil and gas prices due to a tight fossil fuel supply and geopolitical uncertainty have led to substantial increases in energy costs worldwide.



- In developing economies, rising food prices have had **cascading effects**, culminating in higher overall inflation.
- This gets intensified if poor weather hits harvests and rising oil prices drive up the cost of producing and transporting fertilizers.
- In developing economies, higher prices for food impacts different sections of the population differently, depending on the types of food consumed and the share of food expenditure in a household's consumption basket.
- Persistent short supply and increases in food and fuel prices could significantly increase the risk of social unrest as the poorer sections are pushed to the edge of heightened deprivation.

## 2] Capital outflow

- Emerging markets suffered their first portfolio outflows in a year in March 2022.
- The Institute of International Finance (IIF) says "foreign net portfolio outflows for emerging markets came to \$9.8 billion in March.
- Investors have become more selective, as higher risk sensitivity mounts due to tighter monetary conditions and rising inflation.
- **Reasons for capital outflow:** Interest rates tightening in the United States is associated with capital flow reversals from emerging markets.
- **Impact on developing economies:** For developing economies, the result of sudden large capital outflows is currency depreciation and tighter external sector conditions, leading to growth fluctuations.

## Way forward

- **Monitor the pass-through of international prices:** Though the factors contributing to high inflation (global supply shocks) are **beyond the control of central banks**, they need to carefully monitor the pass-through of rising international prices to domestic inflation to calibrate their responses.
- **Calibrate the pace of policy tightening:** The pace of policy tightening needs to be attuned to prevailing economic situations and activity levels.
- **Communicate the importance of inflation targeting:** Central banks could also signal a readiness to shift the monetary stance to maintain the credibility of their inflation-targeting frameworks by clearly communicating the importance of inflation stabilisation in their objectives and backing it with policy actions.
- **Foreign exchange interventions:** As sudden capital flow reversals can threaten financial stability, foreign exchange interventions could address market imbalances.
- **Fiscal consolidation:** There exists an imperative to prune expenditure and get back to the road of fiscal consolidation.

- However, a push for consolidation should not prevent governments from prioritising spending to protect and help vulnerable populations affected by price increases and the pandemic.
- **Income support policies:** In the post-pandemic global economy, there will be a likely cross-sectoral labour reallocation.
- These transitions require labour market and income support policies that are designed to provide safety nets for workers without hindering employment growth.

## Conclusion

The message from the current phase of global growth is clear. Policymakers in the developing economies have to prepare for tighter financial conditions and spillovers from geopolitical volatility.

## 18. Understanding SEBI Rules on Passive Funds

The Securities and Exchange Board of India (SEBI) recently issued a circular on passive funds covering matters related to transparency, liquidity and operational aspects of exchange-traded funds (ETFs) and index funds.

### What are Passive Funds?

- A passive fund is an investment vehicle that tracks a market index, or a specific market segment, to determine what to invest in.
- Unlike with an active fund, the fund manager does not decide what securities the fund takes on.
- This normally makes passive funds cheaper to invest in than active funds, which require the fund manager to spend time researching and analysing opportunities to invest in.
- Tracker funds, such as ETFs (exchange traded funds) and index funds fall under the banner of passive funds.

### What is a passive ELSS scheme?

- Passive funds mimic an underlying index. By contrast active funds are actively managed by fund managers.
- The SEBI has now introduced a passive equity-linked saving schemes (ELSS) category, which will give taxpayers another investment option to avail of tax benefits.
- According to the circular, the passive ELSS scheme will be based on any index comprising equity shares from the top 250 companies in terms of market capitalization.

- Beginning 1 July, a fund house will be able to either have an active ELSS scheme or a passive ELSS scheme, but not both.

### **What are the norms for debt ETFs?**

- Passive debt funds are now divided into three categories:
  1. Corporate debt funds with exposure to corporate bonds
  2. G-Sec funds investing in government securities, and
  3. Hybrid funds where allocation is a combination of corporate bonds and government securities
- Currently, debt funds in the passive category invest only in AAA-rated instruments.
- The Sebi circular introduces norms for each debt fund category, including portfolio exposure limits to each sector, the issuer (based on rating) and group.
- Application of these provisions should help mitigate concentration risk in debt ETFs/ index funds.

### **What about tracking error?**

- As per Sebi's circular, passive funds must disclose 'tracking error' and 'tracking difference' in their monthly fact sheets.
- These metrics indicate how different the performance of the fund is compared to its underlying index – an effort to keep investors better informed.
- The circular specifies limits for tracking error and tracking difference, which passive funds must follow.

### **What is the mandate on disclosing NAVs?**

- Because of poor liquidity for ETFs in the secondary market in India, ETF prices could differ widely from the net asset value (NAV) of the fund.
- The NAV of the fund represents the value of the underlying asset of the ETF.
- The Sebi circular mandates disclosure of NAV (indicative) on a continuous basis throughout the day on the stock exchange.
- While the practice is already in existence, Sebi rules institutionalize it.
- Checking the NAV can help one avoid making a transaction at a significant premium or discount.

### **Can one execute ETF transactions directly?**

- Investors can buy or sell units of ETFs only on stock exchanges.

- But, large buy or sell transactions can also be directly placed with the fund house.
- Sebi now says orders greater than ₹25 crore alone can be placed for redemption or subscription directly with the asset management company (AMC).

## 19. What is a Not-for-Profit Company?

The Enforcement Directorate (ED) has summoned Rahul Gandhi and Sonia Gandhi following a trial court order in a tax assessment case of his not-for-profit company.

### What is the case?

- A case alleged cheating and misappropriation of funds on part of the leaders in acquiring the newspaper.
- The alleged persons acquired it through a Section 25 company – in which they have 86% stake.

### What is a Section 25 company?

- It is defined under the Companies Act, 1956.
- It is a not-for-profit charitable company.
- It is formed with the sole object of promoting commerce, art, science, religion, charity, or any other useful object.
- It intends to apply its profits, if any, or other income in promoting its objects, and to prohibit the payment of any dividend to its members
- Section 8 of the Companies Act, 2013 includes other objects such as sports, education, research, social welfare and protection of the environment among others.

### Fiscal activities allowed

- While it could be a public or a private company, a Section 25 company is prohibited from payment of any dividend to its members.
- Section 25 states that by its constitution the company is required/ intends to apply its profits, if any, or other income in promoting its objects and is prohibited from paying any dividend to its members.

### What are prominent examples of such companies?

- According to details available with the Ministry of Corporate Affairs, a large number of companies have been formed under the Section.

- Among these are Reliance Foundation, Reliance Research Institute, Azim Premji Foundation, Coca Cola India Foundation, and Amazon Academic Foundation.

### **Why are such companies formed?**

- Most people looking to form a charitable entity go for forming a company under Section 25, now Section 8, rather than a Trust structure.
- This is because most foreign donors like to contribute to a company rather than Trust because they are more transparent and provide more disclosures.
- If a company has to be converted into a not-for-profit company, they can't be converted into a Trust, however, they can be converted into a Section 25/ Section 8 company.

### **20. Next-Generation Corvettes for Indian Navy**

The Defence Acquisition Council (DAC) has given the Acceptance of Necessity (AoN) for the procurement of next-generation Corvettes for the Indian Navy at an approximate cost of Rs 36,000 crore.

#### **What is a Corvette?**

- A Corvette is the smallest class of naval ships and it falls below the warship class of a frigate.
- These are highly agile ships and are categorised as missile boats, anti-submarine ships, coastal patrol crafts and fast attack naval vessels.
- The word corvette itself is derived from French and Dutch origin.
- During World War II, the term Corvette was used to describe vessels which had anti-submarine roles assigned to them.
- Modern Corvettes can go up to 2,000 tons in displacement which helps in keeping them agile.

#### **What kind of Corvettes does the Indian Navy possess?**

- The Indian Navy at present has the Kamorta Class Corvettes, which are also known as Project 28.
- These ships have an anti-submarine role and are manufactured at Garden Reach Shipbuilders and Engineers in Kolkata.
- The four Kamorta Class Corvettes that the Indian Navy possesses are named INS Kamorta, INS Kadmatt, INS Kiltan and INS Kavaratti.
- The first of these was commissioned in 2014 and the last one in 2020.

### What new capabilities will the new generation Corvettes have?

- The next-generation Corvettes will be manufactured for various roles like surveillance missions, escort operations, deterrence, surface action group operations, search and attack and coastal defence.
- It is worth noting that these roles will be in addition to the anti-submarine roles being already performed by the existing Corvettes in the Navy.
- Corvettes will be constructed based on new in-house design of the Indian Navy using latest technology of ship buildings.
- They would contribute to further the government's initiative of Security and Growth for all in the region (SAGAR).

### 21. Dostarlimab: The New Wonder Cancer Drug

A trial on 18 colorectal cancer patients in the US found that cancer could be treated without chemotherapy or surgery. The world is sitting up and taking note of Dostarlimab, which has been called a wonder drug.

#### What is Dostarlimab?

- Dostarlimab is an experimental drug. It contains laboratory-produced molecules.
- It acts as substitute antibodies. It is sold under the brand name Jemperli.
- It was approved for medical use in the United States and the European Union in 2021.
- Its side-effects include vomiting, joint pain, itching, rash, fever etc.

#### What are the findings?

- The trial showed that immunotherapy alone - without any chemotherapy, radiotherapy, or surgery that have been staples of cancer treatment.
- It could completely cure the patients with a particular kind of rectal cancer called 'mismatch repair deficient' cancer".
- All 12 patients had completed the treatment and were followed for six to 25 months after.
- No cases of progression or recurrence had been reported during the follow-up.
- The response too was rapid, with symptoms resolving in 81% of the patients within nine weeks of starting the therapy.

### **Is Dostarlimab actually very effective?**

- Dostarlimab is not a new drug but a combination of drugs that are already approved for use in immunotherapy.
- There is a possibility that Dostarlimab may improve the outcome and survival rate in rectal cancer patients but to say it as a magic drug for cancer is completely going overboard.

### **How does this drug cure?**

- PD1 is a protein that regulates immune function and can sometimes keep T cells from killing cancer cells.
- The therapy in the trial used PD1 blockades, allowing T cells to kill cancer cells.
- 'Mismatch repair deficient' cancer is most common among colorectal, gastrointestinal, and endometrial cancers.
- Patients suffering from this condition lack the genes to correct typos in the DNA that occur naturally while cells make copies.
- Immunotherapy belongs to a category called PD1 blockades that are now recommended for the treatment of such cancers rather than chemotherapy or radiotherapy.

### **Will Indian patients get access to the drug?**

- At present, Indian doctors seem to be generally wary of prescribing Dostarlimab for their patients.
- Experts have termed as optimistic the findings of an ongoing trial – a group of rectal cancer patients showed no signs of a tumour after taking the drug for six months.
- None of the participants reported any severe side-effects either.
- Yet, doctors say they want to assess the duration of the response.

### **What do we know about the clinical trial?**

- Cancer was treated in all the patients and could not be detected by physical examination, endoscopy, positron emission tomography, or magnetic resonance imaging.
- Thus, there is a thought that cancer can be treated without chemotherapy or surgery.

### Is it too early to celebrate?

- Cancer specialists said initial signals show how precision medicine is building the future but they need to test more patients from different areas and other types of cancers.
- The combination of drugs was administered to a small number of patients and for a specific type of cancer.

## 22. RBI plans to link Credit Cards with UPI

The RBI has proposed to allow the linking of credit cards with the Unified Payments Interface (UPI).

### Integrating Credit Cards to UPI

- The integration will first begin with the indigenous RuPay credit cards.
- Both the RuPay network and UPI are managed by the same organisation – the National Payments Corporation of India (NPCI).

### What is UPI?

- UPI is an instant real-time payment system developed by National Payments Corporation of India (NPCI) facilitating inter-bank transactions.
- The interface is regulated by the Reserve Bank of India and works by instantly transferring funds between two bank accounts on a mobile platform.

### Why such move?

- The linkage of UPI and credit cards could possibly result in credit card usage zooming up in India given UPI's widespread adoption.
- The integration also opens up avenues to build credit on UPI through credit cards in India, where in the last few years, a number of startups like Slice, Uni, One etc. have emerged.
- The move could also be a push to increase adoption by banking on UPI's large user base.
- So far, UPI could only be linked to debit cards and bank accounts.
- This will provide additional convenience to the users and enhance the scope of digital payments.

### What could be the hurdles?

- There are some regulatory areas that would have to be addressed before the linkage happens.



- For instance, it is not clear how the Merchant Discount Rate (MDR) will be applied to UPI transactions done through credit cards.
- UPI and RuPay attract zero-MDR, meaning that no charges are applied to these transactions, which is a key reason behind the prolific adoption of UPI both by users and merchants.
- The norm has faced pushback from the payments industry.
- It has argued that it limits the aggregators' ability to invest in and maintain the financial infrastructure of the payment ecosystem that they have built.
- Applicability of zero-MDR on UPI could also be a reason why other card networks such as Visa and Mastercard may not have been onboarded to UPI for credit cards yet.

### What is the big picture?

- UPI has become the most inclusive mode of payment in India with over 26 crore unique users and five crore merchants on the platform.
- The progress of UPI in recent years has been unparalleled.
- Many other countries are engaged with us in adopting similar methods in their countries.
- In May, UPI processed 5.95 billion transactions worth over Rs 10 trillion, a record high since its launch in 2016.
- NPCI is looking to soon process a billion transactions a day.

### 23. Monetary tightening and its impact on growth

A rate hike in the monetary policy committee's June meeting was a foregone conclusion after the spike in inflation and an off-cycle surprise interest rate hike on May 4.

#### Reasons fast forwarding of interest rate hike

- **1] Broad based inflation:** A confluence of factors has pushed inflation higher and made it **persistent and broad-based**.
- **2] Policy rates are still negative:** Even with this hike, the repo rate, the **signalling tool for bank interest rates**, is still below pre-pandemic levels.
- The real policy rate (repo rate less expected inflation) remains negative and has some distance to cover before it reaches positive territory – where the RBI would like to see it.
- **3] Lag in effect:** Monetary policy impacts growth, and thereafter, inflation with a lag.
- To control inflation, the RBI needed to act faster by front loading rate hikes.
- **4] Elevated inflation expectations:** The risk of inflation expectations getting unmoored had risen.

- Household and business inflation expectations remain elevated, as indicated by the RBI's inflation expectations survey of households.
- **5] Interest rate hike in the US:** The aggressive stance of the US Federal Reserve and ensuing tightening financial conditions.
- **India is better placed today than in 2013** to face the Fed's actions with a stronger forex shield.

### How US Fed's actions affect India?

- India is not insulated.
- **Capital outflow:** The headwinds now are stronger than in 2013 and we have seen net capital outflows since October 2021.
- S&P Global expects the US federal funds rate to be hiked to 3-3.25 per cent in 2023, higher than the pre-pandemic level, and highest since early 2008.
- Despite a strong forex hoard, the RBI has had to deploy monetary policy to mute the impact of the Fed's actions.

### Inflation and its impact

- **Upward pressure on food inflation:** The pressure on food inflation has increased owing to the impact of the freak heatwave on wheat, tomatoes and mangoes, which is driving prices higher.
- This is on top of **rising input costs for agricultural production**, the global surge in food prices and the expected sharper than usual rise in minimum support price.
- **Fuel inflation** will remain high, duty cuts notwithstanding, as global crude prices remain volatile at elevated levels.
- **Core inflation**, the barometer of demand, is a complex story.
- Goods (despite only partial pass-through of input costs) are witnessing **higher inflation than services**.
- That's because **services faced tighter restrictions** during the Covid-19 waves, restricting their consumption and the pricing power of providers as well.
- Service categories that are mostly **regulated**, such as public transport, railways, water and education, have over 50 per cent weight in core services.
- However, prices of **discretionary services** such as airlines, cinema, lodging and other entertainment are rising.
- **Transportation-related services** have seen the sharpest rise in the past six months due to fuel price increases.
- **Impact on the poor:** For those at the bottom of the pyramid, **high inflation hits harder** because energy and food are a big chunk of their consumption basket.

## Growth prospects

- S&P Global has recently cut the growth outlook for major economies for 2022 – that of the US to 2.4 per cent from 3.2 per cent, for Eurozone to 2.7 per cent from 3.3 per cent earlier, and for China to 4.2 per cent from 4.9 per cent.
- This will **hurt exports** which are very sensitive to global demand.

## Monetary policy actions

- Not all aspects of **supply-driven inflation** can be addressed via monetary policy.
- So the authorities are complementing monetary policy actions by using the limited fiscal space to **cut duties and extend subsidies** to the vulnerable.

## Conclusion

Monetary tightening impacts growth with a lag of at least 3-4 quarters and the fact that real interest rates are negative and borrowing rates still below pre-pandemic levels, implies monetary policy is unlikely to be growth-restrictive for this year.

## 24. Indian Patent Regime vs. US norms

The US Trade Representative (USTR) said in a report released last month that India was one of the most challenging major economies as far as IP protection and enforcement is concerned.

### What is the news?

- US has decided to retain India on its Priority Watch List along with six other countries – Argentina, Chile, China, Indonesia, Russia and Venezuela.

### What is a Patent?

- A patent is an exclusive set of rights granted for an invention, which may be a product or process that provides a new way of doing something or offers a new technical solution to a problem.

### Indian Patent Regime: A Backgrounder

- Indian patents are governed by the **Indian Patent Act of 1970**.
- India has gradually aligned itself with international regimes pertaining to intellectual property rights.

- It became a party to the **Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement** following its membership to the World Trade Organisation on January 1, 1995.
- An interesting point is that the original Indian Patents Act **did not grant patent protection to pharmaceutical products** to ensure that medicines were available at a low price.
- Patent protection of **pharmaceuticals were re-introduced after the 2005 amendment** to comply with TRIPS.

### Various agreements

- India is also a signatory to several IPR related conventions, including the **Berne Convention**, which governs copyright.
- It is signatory to the **Budapest Treaty, the Paris Convention for the Protection of Industrial Property, and the Patent Cooperation Treaty (PCT)**, all of which govern various patent-related matters.

### Issues raised about India

- Among the issues raised in the report are:
  1. India's inconsistencies regarding patent protection
  2. Concerns about what can be patented
  3. Waiting time for obtaining patents
  4. Burdensome reporting requirements and
  5. Doubts about data safety
  6. Trademark counterfeiting and secrets
- India had undertaken an intellectual property review exercise last year, where a Parliamentary Standing Committee examined this subject.

### Contention of the US: Patents Evergreening

- One of the main points of contention between India and the U.S. has been Article 3(d) of the Indian Patent Act.
- Section 3 deals with **what does not qualify** as an invention under the Act, and Section 3(d) in particular excludes the mere discovery of a **new form of a known substance**.
- Section 3(d) prevents the mere discovery of any new property or new use for a known substance from being patented as an invention unless it enhances the efficacy of the substance repetitive.
- This prevents, what is known as "**Evergreening**" of patents.
- According to the Committee's report, Section 3(d) allows for "**generic competition by patenting only novel and genuine inventions.**"

## TRIPS and the Doha Declaration

- The Doha Declaration on the TRIPS Agreement and **Public Health** was adopted on November 14, 2001, by the WTO member states.
- This declaration recognises the **gravity of public health problems** affecting developing and least developed nations.
- It recognises that “**intellectual property protection is important for the development of new medicines,**” and acknowledges concerns about its effects on prices.
- It is interpreted and implemented as a **right to protect public health** and, in particular, **to promote access to medicines for all.**

## Key provisions of Doha Agreement

- **Compulsory licences can be invoked** by a state in public interest, allowing companies apart from the patent owner to produce a patented product without consent.
- It concluded that **India must not compromise on the patentability criteria** under Section 3(d).
- It said that this ensures the growth of generic drug makers and the public’s access to affordable medicines.
- It indicated that **India should resolve its differences with the US** regarding the disqualification of incremental inventions through bilateral dialogue.

## Positive steps taken by India

- The USTR report highlighted some positive steps taken by India in the recent past.
- India has accession to the **World Intellectual Property Organisation (WIPO) Performances and Phonograms Treaty** and **WIPO Copyright Treaty**, collectively known as the **WIPO Internet Treaties**, in 2018 and the **Nice Agreement** in 2019.

## 25. What are Fast Radio Bursts (FRB)?

In a paper published in Nature, astronomers have reported a fast radio burst (FRB) whose characteristics are different from almost all other FRBs previously detected.

### Fast Radio Burst (FRB)

- FRBs are super intense, millisecond-long bursts of radio waves produced by unidentified sources in the distant cosmos.

- They were first discovered in 2007 when scientists combed through archival pulsar data.
- Pulsars refer to spherical, compact objects in the universe, which are about the size of a large city but contain more mass than the sun.
- They often look like flickering stars but are not stars.

### Why in news?

- The new study in Nature describes FRB 20190520B, first discovered in 2019.
- What makes it different is that unlike many other FRBs, it emits frequent, repeating bursts of radio waves.
- And between bursts, it constantly emits weaker radio waves.
- FRB 190520B is co-located with a compact, persistent radio source and associated with a dwarf host galaxy of high specific star formation.

### 26. Tendu Leaves Collection in India

Tribal residents in Chhattisgarh have decided to file an FIR against an official of the state forest department after he confiscated the tendu leaves that they had collected.

### Tendu Leaves

- Leaves of tree species *Diospyros melanoxylon* are used as wrappers of tobacco to produce bidi.
- This tree is commonly known as “tendu,” but also called “abrus” in Andhra Pradesh, “kendu” in Orissa and West Bengal, “tembru” in Gujarat, “kari” in Kerala, “tembhurni” in Maharashtra, and “bali tupra” in Tamil Nadu.
- This leaf is considered the most suitable wrapper on account of the ease with which it can be rolled and its wide availability.
- Tendu is also called ‘green gold’ and is a prominent minor forest produce in India.

### How it is traded?

- In 1964, the trade in tendu leaves was nationalised in then-undivided Madhya Pradesh.
- Until then, people were free to sell tendu leaves in markets across the country.
- Maharashtra adopted the same system in 1969, undivided Andhra Pradesh in 1971, Odisha in 1973, Gujarat in 1979, Rajasthan in 1974 and Chhattisgarh in 2000.
- Under this arrangement, the state forest department collects tendu leaves, allows their transportation and sells them to traders.

### Why is there a dispute?

- The dispute is essentially about who has the right to sell the leaves.
- State governments say only they can do so due to nationalization.
- On the other hand, tendu leaf collectors cite **The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006** and the **2013 Supreme Court verdict in the Niyamgiri Case** to say private collectors can sell them on their own.
- Tendu leaf collectors allege that the government gives them a lower price for the leaves, while it fetches a higher price in the open market.

### What do the tribals want?

- The tribals, after having obtained forest rights leases under the FRA 2006, now want to sell tendu leaves on their own, with the permission of Gram Sabhas and make good profits.
- Many types of minor forest produce like Mahua, Salbeej or the seeds of the Sal tree (*Shorea robusta*) and Chironji or Almondette kernels (*Buchanania lanzan*) are collected and sold by tribals.
- Hence, there should not be a dispute over tendu leaves.

## 27. What is TVS-2M Nuclear Fuel?

Russia has supplied the first batches of more reliable and cost-efficient nuclear fuel over the existing one, the TVS-2M nuclear fuel, to India for the Kudankulam Nuclear Power Plant (KNPP).

### What is TVS-2M Nuclear Fuel?

- The TVS-2M FAs contain gadolinium-oxide which is mixed with U-235 enrichments.
- The core does not contain BARs (Burnable Absorbers Rods).

### How are they prepared?

- Once the uranium is enriched, it is ready to be converted into nuclear fuel.
- At a nuclear fuel fabrication facility, the UF<sub>6</sub>, in solid form, is heated to gaseous form, and then the UF<sub>6</sub> gas is chemically processed to form uranium dioxide (UO<sub>2</sub>) powder.
- The powder is then compressed and formed into small ceramic fuel pellets.
- The pellets are stacked and sealed into long metal tubes that are about 1 centimetre in diameter to form fuel rods.
- The fuel rods are then bundled together to make up a fuel assembly.

- Depending on the reactor type, each fuel assembly has about 179 to 264 fuel rods.
- A typical reactor core holds 121 to 193 fuel assemblies.

### Benefits offered

- TVS-2M fuel assemblies have a number of advantages making them more reliable and cost-efficient.
- The new fuel has increased uranium capacity - one TVS-2M assembly contains 7.6% more fuel material as compared to UTVS.
- Besides, the special feature of the Kudankulam fuel in particular is the new generation anti-debris filter ADF-2, efficiently protecting fuel assemblies.
- Once the new TVS-2 M fuel is used in the next refuelling, the reactor will start operations with an 18-month fuel cycle.
- It means the reactor, which has to be stopped for every 12 months for removing the spent fuel and inserting the fresh fuel bundles and allied maintenance, will have to be stopped for every 18 months.

### 28. What is IN-SPACE?

The Prime Minister inaugurated the headquarters of the Indian National Space Promotion and Authorisation Centre (IN-SPACE) at Bopal, Ahmedabad.

#### What is IN-SPACE?

- The establishment of IN-SPACE was announced in June 2020.
- It is an autonomous and single window nodal agency in the Department of Space for the promotion, encouragement and regulation of space activities of both government and private entities.
- It also facilitates the usage of ISRO facilities by private entities.
- It comprises technical experts for space activities along with safety expert, academic experts and legal and strategic experts from other departments.
- It also comprises members from PMO and MEA of Government of India.

#### Roles and Responsibilities

- Space activities including **building of launch vehicles and satellites and providing space based services** as per the definition of space activities.
- **Sharing of space infrastructure and premises under the control of ISRO** with due considerations to on-going activities.
- **Establishment of temporary facilities** within premises under ISRO control based on safety norms and feasibility assessment



### How is it different from ANTRIX?

- Antrix Corporation Limited (ACL), Bengaluru is a wholly-owned Government of India Company under the administrative control of the Department of Space.
- It is as a marketing arm of ISRO for promotion and commercial exploitation of space products, technical consultancy services and transfer of technologies developed by ISRO.
- Antrix is engaged in providing Space products and services to international customers worldwide.

### What about New Space India Limited (NSIL)?

- It functions under the administrative control of the Department of Space (DOS).
- It aims to commercially exploit the research and development work of ISRO Centres and constituent units of DOS.
- The NSIL would enable Indian Industries to scale up high-technology manufacturing and production base for meeting the growing needs of the Indian space program.
- It would further spur the growth of Indian Industries in the space sector.

## 29. Issues with the Environmental Performance Index (EPI)

The 2022 Environmental Performance Index (EPI) produced by Yale and Columbia Universities and released on World Environment Day (June 5) has triggered much consternation in India, as the country is ranked last (180th).

### Issues with EPI 2022

- **Ignoring the past effects:** Indicators **may focus on current rates of increase or decrease** in environmental pressures (flows) – as the EPI does for carbon dioxide emissions and tree cover gains – but **under-state the accumulated effect (stocks)** that relates to actual harm, thereby ignoring past effects.
- **Same standard in different socio-ecological context:** When ranking countries, one is essentially applying the same standard across vastly different socio-ecological contexts – this involves difficult choices.
- For example, the EPI leaves out arsenic in water, which is a major threat in Bangladesh.
- **Difficulty in measurement of progress on climate change:** Climate change is a global environmental problem, and because its effects depend on the accumulation of greenhouse gases over time, measuring progress in a given country is challenging.

- Climate change mitigation has to be measured against what it is reasonable and fair to expect from different countries, taking into account their past emissions as well as national contexts.
- There has been an inconclusive 30-year debate on this question; any choice of benchmark involves major ethical choices.
- EPI has given 38 per cent weight to the climate change in the index.
- They assume that the world must reach net zero emissions by 2050, and so the appropriate benchmark is whether all countries are reducing emissions and reaching zero by 2050.
- **Against CBDR:** This approach is contrary to widely accepted ethical principles, especially the global political agreement on **common-but-differentiated-responsibility (CBDR)**.
- The Yale-Columbia approach ignores the fact that countries have different responsibilities for past accumulations and are at different levels of emissions and energy use.
- The inclusion of indicators on emissions intensity and emissions per capita partly addresses this issue, but these two account for 7 per cent of the weight, versus 89 per cent for indicators derived from current emission trends.

### Implications EPI's approach

- This approach is guaranteed to make richer countries look good, because they have accumulated emissions in the past, but these have started declining in the last decade.
- Meanwhile, poorer countries that have emitted comparatively little in the past, look bad.
- The EPI's flawed and biased approach **distracts from a much-needed honest conversation** about the environment in India.
- India's local environmental performance on air, water and forests is deeply problematic.
- **Air quality in India** is now the second largest risk factor for public health in India, behind only child and maternal nutrition.
- Rivers and lakes are increasingly polluted, rivers are drying, groundwater tables are rapidly declining, and gains in tree cover hide declining natural productivity and diversity of forests and grasslands.

### Conclusion

While indices like these have a limited attention-grabbing purpose, they serve this purpose well only when they are focused, limited to easy-to-measure metrics, and consciously minimise value judgements. The EPI 2022 resoundingly fails this test.

### 30. 21 Years of BrahMos Missile

On June 12, 2001 the BrahMos supersonic cruise missile was first tested from a land-based launcher in Chandipur.

#### What is BrahMos Missile System?

- BrahMos is a joint venture between India's Defence Research and Development Organisation (DRDO) and Russia's NPO Mashinostroyeniya.
- The missile derives its name from the **Brahmaputra** and **Moskva rivers**.
- Beginning with an anti-ship missile, several variants have since been developed.
- It is now capable of being launched from land, sea, sub-sea and air against surface and sea-based targets and has constantly been improved and upgraded.

#### Its capabilities

- BrahMos is a **two-stage missile** with a **solid propellant booster engine**.
- Its **first stage brings the missile to supersonic speed** and then gets separated.
- The **liquid ramjet** or the second stage then takes the missile closer to **three times the speed of sound in cruise phase**.
- The missile has a **very low radar signature**, making it stealthy, and can achieve a variety of trajectories.
- The 'fire and forget' type missile can achieve a cruising altitude of 15 km and a terminal altitude as low as 10 m to hit the target.

#### Background and development

- The early 1980s the Integrated Guided Missile Development Programme was conceived and led by Dr A P J Abdul Kalam.
- It started developing a range of missiles including Prithvi, Agni, Trishul, Akash and Nag, with a wide spectrum of capabilities and ranges.
- In the early 1990s, India's strategic leadership felt the need for cruise and guided missiles.
- The need was felt primarily following the use of cruise missiles in the Gulf War.
- An Agreement was signed with Russia in Moscow in 1998 by Dr Kalam, who headed the DRDO.
- This led to the formation of BrahMos Aerospace, a joint venture between DRDO and NPO Mashinostroyeniya (NPOM), the Indian side holding 50.5% and the Russians 49.5%.

## Tests and induction

- In 1999, work on development of missiles began in labs of DRDO and NPOM after BrahMos Aerospace received funds from the two governments.
- The **first successful test in 2001** was conducted from a specially designed land-based launcher.
- The missile system has since reached some key milestones, with the first major export order of \$375 million received from the Philippines Navy this year.

## Strategic significance

- Cruise missiles such as BrahMos, called “**standoff range weapons**”, are fired from a range far enough to allow the attacker to evade defensive counter-fire.
- What makes the missile system unparalleled is its **extreme accuracy and versatility**.
- With missiles made available for export, the platform is also seen as a **key asset in defence diplomacy**.

## Variants of Brahmos

- Versions currently being tested include ranges up to 350 km, as compared to the original's 290 km.
  - Versions with even higher ranges, up to 800 km, and with hypersonic speed are said to be on cards.
  - Efforts are also on to reduce the size and signature of existing versions and augment its capabilities further.
  - Versions deployed in all three Armed forces are still being tested regularly, and so are versions currently under development.
1. **LAND-BASED:** The land-based BrahMos complex has four to six mobile autonomous launchers, each with three missiles on board that can be fired almost simultaneously. They are described as 'tidy' as they have very few components.
  2. **SHIP-BASED:** The Navy began inducting BrahMos on its frontline warships from 2005. These can hit sea-based targets beyond the radar horizon. The Naval version has been successful in sea-to-sea and sea-to-land modes.
  3. **AIR-LAUNCHED:** On November 22, 2017, BrahMos was successfully flight-tested for the first time from a Sukhoi-30MKI against a sea-based target in the Bay of Bengal. It has since been successfully tested multiple times.
  4. **SUBMARINE-LAUNCHED:** This version can be launched from around 50 m below the water surface. The canister-stored missile is launched vertically

from the pressure hull of the submarine and uses different settings for underwater and out-of-the-water flights.

### 31. Coal Shortages in India

The recent power crisis due to the coal shortage in India underscores the need for measures to avoid a repeat of episodes in the future.

#### Factors contributing to power crisis

- **Spike in power demand:** With the sudden early onset of summer in 2022, power demand spiked, riding on the back of the post-Covid economic recovery.
- **Increase in price due to Ukraine crisis:** The matter was further exacerbated by the Ukraine conflict, which led to a sharp **increase in the price of imported coal**.
- Consequently, power stations designed on imported coal stopped importing because it was no longer economical for them to generate, given their contract price with the distribution companies.
- **Availability of railway rakes:** It's not that domestic coal was not available since enough stock had been built in the mines.
- The issue was of availability of railway rakes for transportation.

#### What were the measures taken by the government ?

- **1] Import of coal to 10 per cent:** First, all generators have been asked to import coal to the extent of 10 per cent (as against 4 per cent earlier) and that half of this should be physically available by the end of June.
- **CIL as aggregator:** Coal India will function as the aggregator on behalf of the generators.
- CIL functioning as the aggregator is a better idea and it may be able to import **at a cheaper cost** by accumulating demand as well as standardising the coal grade to be procured.
- Moreover, it would be **easier for regulators to calculate the revised energy charge** since the price at which coal was imported would be well-documented.
- **2] Section 11 of the Electricity Act 2003 (Act) invoked:** Under this section, the government directed **imported coal-based plants** to run at full capacity with the assurance that their enhanced cost of operation would be compensated.
- **3] Tolling:** The government invoked the concept of tolling, which allowed states to transfer their allotted coal to private generators located near the mines instead of transporting it to far away state generators.
- This move would ease the burden on the **availability of railway rakes**.

- **4] Seeking the consent of beneficiaries for hike:** the government issued policy directions to the **Central Electricity Regulatory Commission (CERC)** overriding CERC's regulations that made it mandatory to seek the consent of beneficiaries if the tariff went up by more than 30 per cent, if some alternate fuel is used.
- **5] Committee to rework the energy charge:** A committee of officials was set up to rework the energy charge for imported coal-based generators.
- **6] Additional working capital:** The government is cognisant of the fact that there is a need for additional working capital and has advised REC/PFC as well as commercial banks to arrange for this.

### Issues with the measures

- **Use of Section 11:** The government invoked Section 11 to give direction to private generators to import coal at a higher cost.
- Section 11(1) allows the government to give direction to a generation company to operate and maintain a generating station in extraordinary circumstances.
- Section 11(2) of the Act mentions that the adverse financial impact on generating company due to directions referred to in sub-section (1) would be offset by the regulator.
- Going by Section 11(2), the government should have left the job of working out the energy charge to the regulator instead of **setting up a committee of officials** to do so though, of course, the CERC was represented in the committee.
- **2] No transparency:** The committee has already worked out the revised energy costs for six of the plants but there is no transparency regarding the coal cost assumed, its calorific value, transportation cost, etc.
- **3] Additional rakes:** We have to bear in mind that the coal problem arose because of the non-availability of rakes.
- With 38 MT of coal to be imported by October this year, and half of that by end of June, the need for rakes will not only go up but would be front-loaded.
- We need the requisite number of rakes otherwise, we are back to where we began.

### Conclusion

While the government is taking steps to increase coal imports and addressing the other issues, it must ensure that domestic production does not dip during monsoon season.

## 32. India is expanding its nuclear arsenal: SIPRI

India had 160 nuclear warheads as on January 2022 and it appears to be expanding its nuclear arsenal, said the Stockholm International Peace Research Institute (SIPRI), a defense think tank.

### What is the news?

- India's nuclear stockpile increased from 156 in January 2021 to 160 in January 2022.

### Nukes in thy neighbour

- Pakistan's nuclear stockpile has remained at 165, SIPRI claimed.
- China is in the middle of a substantial expansion of its nuclear weapon arsenal, which satellite images indicate includes the construction of over 300 new missile silos.
- China had 350 nuclear warheads in January 2021 and 2022.

### Why do countries proliferate nuclear weapons?

- Proliferation models centered on **security concerns or dilemmas** dominate nuclear literature.
- Nuclear weapons provide an **overwhelmingly destructive force that increases a state's relative power in comparison to its neighbors.**
- It provides a powerful tool in an anarchic system where **superpowers dominate other nation-states sovereignty.**
- Hence weaponizing helps **establish a deterrence to prevent war.**

### What is the Deterrence Theory?

- Deterrence is widely defined as any use of threats (implicit or explicit) or limited force intended to dissuade an actor from taking an action (i.e. maintain the status quo).
- The topic gained increased prominence as a military strategy during the Cold War with regard to the use of nuclear weapons.
- It is related to but **distinct from the concept of mutual assured destruction**, which models the **preventative nature of full-scale nuclear attack** that would devastate both parties in a nuclear war.
- The central problem of deterrence revolves around how to credibly threaten military action or nuclear punishment on the adversary despite its costs to the deterrer.

## Issues in Nuclear Disarmament

- **Notion of Nuclear 'Haves' and 'Have-Nots':** The proponents of disarmaments are themselves nuclear armed countries thus creating a nuclear monopoly.
- **Concept of Peaceful Nuclear Explosion (PNE):** conducted for non-military purposes such as mining.

### 33. India's commitment for de-nuclearization

India has always batted for a universal commitment and an agreed global and non-discriminatory multilateral framework.

- It has outlined a **working paper on Nuclear Disarmament** submitted to the UN General Assembly in 2006.
- India participated in the **Nuclear Security Summit** process and has regularly participated in the International Conferences on Nuclear Security organised by the International Atomic Energy Agency (IAEA).
- India is also a member of the **Nuclear Security Contact Group** (but has signed off the Nuclear Non-Proliferation Treaty (NPT)).
- India has expressed its readiness to support the commencement of negotiations on a **Fissile Material Cut-off Treaty (FMCT)**.
- India couldn't join the **Comprehensive Nuclear-Test-Ban Treaty (CTBT)** due to several concerns raised by India.
- India has piloted an annual UNGA Resolution on "**Measures to Prevent Terrorists from Acquiring Weapons of Mass Destruction**" since 2002, which is adopted by consensus.

### 34. What is Web 5.0?

Former Twitter CEO recently announced his vision for a new decentralized web platform that is being called Web 5.0 and is being built with an aim to return "ownership of data and identity to individuals".

#### Various versions of Web

- **Web 1.0** was the first generation of the global digital communications network. It is often referred to as the "**read-only**" Internet made of static web-pages that only allowed for passive engagement.
- **Web 2.0** was the "read and write" Internet. Users were now able to communicate with servers and other users leading to the creation of the social web. This is the **World Wide Web** that we use today.



- **Web 3.0** is an evolving term that is used to refer to the next generation of Internet – a “read-write-execute” web – with **decentralization** as its bedrock. It leverages the blockchain technology and will be driven by Artificial Intelligence and machine learning.
- **Web 4.0** is not really a new version, but is an alternate version of what we already have. Web needed to adapt to its mobile surroundings. Web 4.0 connects all devices in the **real and virtual world in real-time**.

### What is Web 5.0?

- Web 5.0 is aimed at building an **extra decentralized web** that puts you in control of your data and identity.
- Simply put, Web 5.0 is **Web 2.0 plus Web 3.0** that will **allow users to ‘own their identity’** on the Internet and **‘control their data’**.
- Both Web 3.0 and Web 5.0 envision an **Internet without threat of censorship** – from governments or big tech, and without fear of significant outages.

### What are the use cases for Web 5.0?

There can be two use cases for how Web 5.0 will change things in the future.

1. **Control of identity:** A digital wallet that securely manages user identity, data, and authorizations for external apps and connections.
2. **Control over own data:** Say, we can grant any music app access to settings and preferences, enabling the app to take our personalized music experience across different music apps.

## 35. Rising global food prices: Causes and Solution

This increase in global food prices which manifested itself in the three food price crises since the 1960s offers some pertinent lessons for global food systems and the international community.

### Managing year-to-year volatility Vs. periodic spikes in food prices

- **Year-to-year volatility** is easily managed by most countries through changes in their trade and domestic policies.
- But steep and severe **periodic price shocks** can lead to some sort of a crisis at the global and national levels.
- **Implications:** The crisis can emerge in the form of **food shortages**, trade disruptions, a rise and spread in hunger and poverty levels, depletion of foreign exchange reserves, a strain on a nation’s fiscal resources, a threat to peace, and even social unrest in some places.

## History of food crises after since adoption of Green Revolution

- Data from Food and Agriculture Organization of the United Nations, the World Bank/International Monetary Fund show that since the onset and the adoption of Green Revolution technology in the early 1960s, the world has been **struck thrice by food price crises**.
- **First shock-1973-76:** The first shock was experienced during 1973-76 when the food price index (based on prices in U.S. dollars) doubled in nominal terms.
- **Declining trend:** For the next two decades, food prices in real terms **followed a declining trend** and were at their lowest around 2002.
- After this, nominal as well as the real prices of food began rising.
- **Second crisis-2008:** This momentum built up to culminate in the next food price crisis of 2008, which was further intensified by 2011.
- While the price shock began softening after 2014, food prices did not move back to their pre-2006 level.
- **Third crisis-2020:** This time the increase in the food price index **happened very quickly** and it turned out to be very big – it has taken the food price index to its historically highest level.
- **Cause outside agriculture:** All the three food price crises were triggered by factors outside agriculture.
- They were **not caused by any serious shortfall in agriculture production**.
- **The interval between crises is reducing:** The interval between two consecutive price shocks has narrowed down considerably and the severity of shock is turning stronger.

## What are the causes responsible for the recent food price crisis?

- **1] Covid-19 and Ukraine crisis:** It was triggered by supply disruptions due to COVID-19 and further **aggravated by the Russia-Ukraine war**.
- The current food price spike first began in vegetable oils and then expanded to cereals.
- **Higher the global trade higher disruption:** The effect of global trade disruption will be higher for commodities that are traded more and vice-versa.
- **2] Diversion of food for biofuel:** Another factor underlying the rising trend and spikes in food prices is the diversion of food for biofuel needs.
- When **crude prices increase beyond a certain level** it becomes economical to use oilseeds and grains for biodiesel and ethanol, respectively.
- The second reason for the use of food crops for biofuel is the mandates to increase the share of renewable energy resources.
- **3] Increased cost of agrochemicals and fertilisers:** Food prices are also expected to go up in the current and next harvest season because of an increase in the prices of fertilizer and other agrochemicals.

## Way forward for India

- **Transmission of international prices** to domestic prices can be prevented only if there is no trade.
- **1] Trade policy changes:** This transmission of global prices to the domestic market can be moderated through trade policy and other instruments.
- When international prices go too low, India has checks on cheap imports to protect the interests of producers; and when international prices go too high, the country liberalises imports and imposes checks on exports to ensure adequate availability and reasonable food prices for domestic consumers.
- **2] Buffer stock:** The policy of having a buffer stock of food staples has also been very helpful in maintaining price stability, especially in the wake of global food crises.
- **3] Strategic liberalisation:** India should continue with a policy of strategic liberalisation, as followed in the past, to balance the interests of producers and consumers.
- **4] Maintain image as a reliable and credible exporter:** The importance of agriculture exports to mop up food and agriculture surplus from the country is increasing.
- Ongoing trends in domestic demand and supply imply that India will be required to dispose of 15% of its domestic food output in the overseas market by 2030.
- This underscores the need to **maintain India's image as a reliable and credible exporter.**
- However, it is important to differentiate between the two situations: **disturbing normal export** and regulating exports exceeding the normal level.

## What are the implications for India?

- **Increased prices in India:** Export and import in the agriculture sector constituted 13% of gross value added in agriculture during 2020-21.
- Therefore, some transmission of an increase in global prices on domestic prices is inevitable.
- **Wheat export ban and implications:** The recent ban on wheat exports and restrictions on the export of other food commodities by India need to be seen in the light of an abnormal situation created by spikes in international prices.
- Some experts see it as a setback to India's image as a **reliable exporter** as this move is seen to disrupt (regular) export channels.
- A closer examination of data reveals that India's action to ban or restrict food exports **is not disrupting its normal exports.**
- India was a very small exporter of wheat, with its share in global wheat trade ranging between 0.1% to 1% during 2015-16 to 2020-21.

- The international market is looking for around **50 million tonnes** of wheat to compensate for the disruption in wheat exports from Russia and Ukraine.
- If India had not imposed a ban on wheat export, it would have resulted in a severe shortage of wheat within the country.

### Global impact and suggestions

- As the steam of Green Revolution technology slowed down with the start of the 21st century, food prices began increasing in real terms.
- **New breakthroughs required:** The world requires new breakthroughs such as Green Revolution technology, for large-scale adoption in order to enable checks on food prices rising at a faster rate.
- **Increase spending on agri-research:** This in turn requires **increased spending on agriculture** research and development (especially by the public sector and multilateral development agencies).
- **Strengthen global agri-research system:** There is a need to strengthen and rejuvenate the global agri-research system under the **Consultative Group on International Agricultural Research (CGIAR)** which is heading towards disarray.
- **Rethink biofuel protocols:** Biofuel protocols have contributed to the global food crisis for the second time in the last 15 years.
- **Diversion of land** under food crops and food output for biofuel should be carefully calibrated with implications for food availability.

### Conclusion

- The last three food price crises were primarily caused due to an increase in energy prices and disruptions in the movement of food across borders.
- Factors related to climate change are going to be an additional source of supply shocks in the years ahead.
- Therefore, the global community must plan to **have a global buffer stock of food** in order to ensure reasonable stability in food prices and supply.