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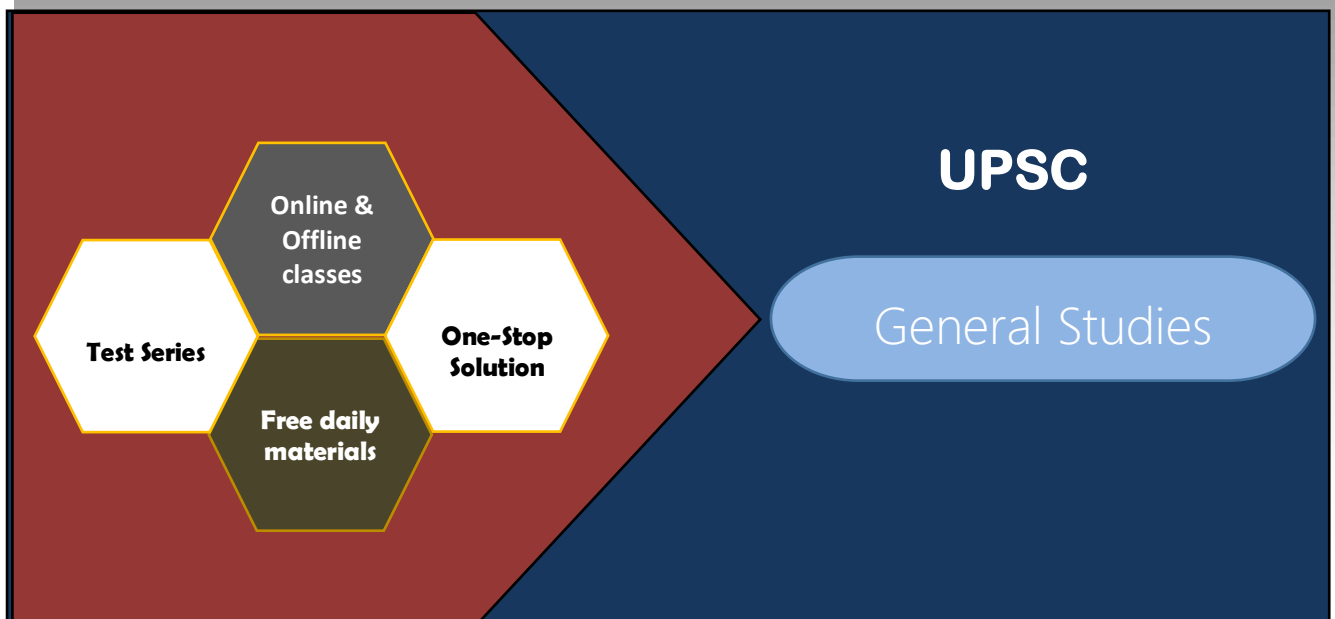
Monthly current affairs magazine

CURRENT AFFAIRS

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THE HINDU & INDIAN EXPRESS**



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

1. 100 years of Rampa or Manyam Rebellion

Hundred years ago, in August 1922 the “Rampa Rebellion” or “Manyam Rebellion” took place in the forests of the Godavari Agency in the Madras Presidency.

Rampa Rebellion

- The Rampa Rebellion of 1922, also known as the **Manyam Rebellion**, was a tribal uprising **led by Alluri Sitarama Raju** in Godavari Agency.
- It began in August 1922 and lasted until the capture and killing of Raju in May 1924.
- Forced labour, embargoes on collecting minor forest produce and bans on tribal agriculture practices led to **severe distress among the Koyas** in the area.
- Sitarama Raju **did not belong to the tribal community**, but understood the restrictions that the British colonial administration placed on the tribal way of life.

Background of the revolt

- The Rampa administrative area comprised around 1,800 square km and had a mostly tribal population of approximately 28,000.
- They had traditionally been able to support their food requirements through the use, in particular, of the podu system, whereby each year some areas of jungle forest were burned to clear land for cultivation.
- The British Raj authorities had wanted to improve the economic usefulness of lands in Godavari Agency, an area that was noted for the prevalence of malaria and blackwater fever.
- The traditional cultivation methods were greatly hindered when the authorities took control of the forests, mostly for commercial purposes such as produce for building railways and ships.
- This was done regardless of the needs of the tribal people.

Why did people revolt?

- The tribal people of the forested hills, who now faced starvation had long felt that the legal system favoured the **muttadar (estate landowners) and merchants**.
- This had also resulted in the earlier Rampa Rebellion of 1879.
- Now they objected also to the Raj laws and continued actions that hindered their economic position and meant they had to find alternate livelihood.
- They objected to attempts at that time to use them as forced labour in the construction of a road in the area.

Role of Raju

- Raju was a charismatic sanyasin, believed by many tribal people to possess magical abilities and to have an almost messianic status.
- He saw the overthrow of colonial rule in terms similar to a millenarian event and he harnessed the discontent of the tribal people to support his anti-colonial zeal.

Course of revolt

- Alluri Sitarama Raju, along with 500 tribal people, attacked the police stations of Chintapalli, Krishnadevipeta and Rajavommangi.
- They walked away with 26 police carbine rifles and 2,500 rounds of ammunition.
- Legend has it that Alluri himself would forewarn the British officers of an imminent attack and would challenge them to stop him with the superior resources that they had at hand.
- He was finally captured, tied to a tree and shot dead.

2. Azores High

- According to a recent study, an extraordinarily big '**Azores High**' (a subtropical weather phenomena) has caused abnormally dry conditions across the western Mediterranean, including the Iberian Peninsula, which is predominantly occupied by Spain and Portugal.

About:

- During the winter, the Azores High is a subtropical high pressure system that spans over the eastern subtropical North Atlantic and western Europe.

- In the subtropical North Atlantic, it is coupled with anticyclonic winds. It is created by dry air aloft descending the subtropics and coincides with the Hadley Circulation's downward branch.

Circulation in Hadley:

- Hadley Cells are low-latitude overturning circulations in which air rises near the equator and sinks at about 30° latitude. They are in charge of the trade winds in the Tropics and low-latitude weather patterns. Hadley cells have the potential to expand all the way to the poles.

What are the ramifications of Azores High?

- Throughout the second part of the twentieth century, the Iberian Peninsula saw yearly drying of 5-10 mm per year each decade.
- Due to severe water shortages that would render land unsuitable for viticulture, cultivation area in grape-growing regions across the Iberian Peninsula will drop by 25 percent - 99 percent by 2050.

3. Anayoottu Ritual of Kerala

Anayoottu, an annual ritual at the Sree Vadakkunnathan Temple, Thrissur was recently held.

- There is a history behind this annual ritual at the temple.
- Kerala's elephant pooram was selected, along with other cultural forms of the country, for display at the opening ceremony of the Asian Games held in Delhi in 1982.
- Elephants were transported all throughout the country to New Delhi.

Anayoottu

- The Anayoottu (gaja pooja/ feeding of elephants) is a festival held in the precincts of the Vadakkunnathan temple in City of Thrissur, in Kerala.
- The festival falls on the first day of the month of Karkkidakam (timed against the Malayalam calendar), which coincides with the month of July.
- It involves a number of unadorned elephants being positioned amid a multitude of people for being worshipped and fed.
- Crowds throng the temple to feed the elephants.

Mythology behind

- It is believed that offering poojas and delicious feed to the elephants is a way to satisfy Lord Ganesha – the god of wealth and of the fulfillment of wishes.
- The Vadakkunnathan temple, which is considered to be one of the oldest Shiva temples in southern India, has hosted the Aanayottoo event for the past few years.

4. National Emblem of India

A day after the National Emblem cast on top of the under-construction Parliament unveiled, controversy has erupted over its aggressive posture.

National Emblem of India

- On 26 January 1950, a representation of the Lion Capital of Ashoka placed above the motto, Satyameva Jayate, was adopted as the State Emblem of India.
- The emblem is an adaptation of the Lion Capital of Ashoka, an ancient sculpture dating back to 280 BCE during the reign of the Maurya Empire.
- It was originally made of Chunar sandstone.
- The statue is a three-dimensional emblem showing four lions.

Features of the emblem

- The actual Sarnath capital features four Asiatic lions standing back to back, symbolizing power, courage, confidence, and pride, mounted on a circular base.
- At the bottom is a horse and a bull, and at its center is a Dharma chakra.
- The abacus is girded with a frieze of sculptures in high relief of The Lion of the North,
- The Horse of the West, The Bull of the South, and The Elephant of the East, separated by intervening wheels, over a lotus in full bloom, exemplify the fountainhead of life and creative inspiration.
- Carved from a single block of sandstone, the polished capital is crowned by the Wheel of the Law.

Historical significance

- One of the Buddha's names is 'Shakya Simha', meaning 'Lion of the Shakyas'.
- The Buddha's **first sermon at Sarnath** was known as the 'Simhanada' (Lion roar) of the Buddha.

5. India ranks 135 out of 146 in Gender Gap Index

India ranks 135 among a total of 146 countries in the Global Gender Gap Index, 2022, released by the World Economic Forum.

What is Global Gender Gap Index?

- The report is annually published by the World Economic Forum (WEF).
- It benchmarks gender parity across four key dimensions or sub-indices – economic participation and opportunity, educational attainment, health and survival, and political empowerment.
- It measures scores on a 0-to-100 scale, which can be interpreted as the distance covered towards parity or the percentage of the gender gap that has been closed.
- The report aims to serve “as a compass to track progress on relative gaps between women and men on health, education, economy and politics”.
- According to the WEF it is the longest-standing index, which tracks progress towards closing these gaps over time since its inception in 2006.

(1) Political Empowerment

- This includes metrics such as the percentage of women in Parliament, the percentage of women in ministerial positions etc.
- Of all the sub-indices, this is where India ranks the highest (48th out of 146).
- However, notwithstanding its rank, its score is quite low at 0.267.
- Some of the best-ranking countries in this category score much better.
- For instance, Iceland is ranked 1 with a score of 0.874 and Bangladesh is ranked 9 with a score of 0.546.
- Moreover, India's score on this metric has worsened since last year – from 0.276 to 0.267.
- The silver lining is that despite the reduction, **India's score is above the global average in this category.**

(2) Economic Participation and Opportunity

- This includes metrics such as the percentage of women who are part of the labour force, wage equality for similar work, earned income etc.
- Here, too, India ranks a lowly 143 out of the 146 countries in contention even though its score has improved over 2021 from 0.326 to 0.350.
- Last year, India was pegged at 151 out of the 156 countries ranked.
- India's score is **much lower than the global average**, and only Iran, Pakistan and Afghanistan are behind India on this metric.

(3) Educational Attainment

- This sub-index includes metrics such as literacy rate and the enrolment rates in primary, secondary and tertiary education.
- Here India ranks 107th out of 146, and its **score has marginally worsened** since last year.
- In 2021, India was ranked 114 out of 156.

(4) Health and Survival

- This includes two metrics: the sex ratio at birth (in %) and healthy life expectancy (in years).
- In this metric, India is ranked last (146) among all the countries.
- Its score hasn't changed from 2021 when it was ranked 155th out of 156 countries.
- The country is the **worst performer in the world** in the "health and survival" sub-index in which it is ranked 146.

Where does India stand amongst its neighbour?

- India ranks poorly among its neighbours and is behind Bangladesh (71), Nepal (96), Sri Lanka (110), Maldives (117) and Bhutan (126).
- Only the performance of Iran (143), Pakistan (145) and Afghanistan (146) was worse than India in South Asia.
- In 2021, India ranked 140 out of 156 nations.

GS 2 : Polity, Governance, International Relations

1. Do not weaken the anti-defection law

The political developments in Maharashtra throw up troubling questions about how the political class is weakening the anti-defection law.

Background of the anti-defection law

- It was enacted as the Tenth Schedule of the Constitution of India, **in 1985**, under Rajiv Gandhi's premiership.
- The law as it was enacted provided for the disqualification of a legislator belonging to a political party if **he voluntarily gave up his membership** of his party or if **he defied the whip** of his party by voting contrary to its directions in the legislative house.
- **Two exceptions:** Initially, there were two exceptions provided in the schedule which would exempt a legislator from disqualification.
- **1] Split:** The first exception was a **split** in their original political party resulting in the formation of a group of legislators.
- If the group consisted of one third of such legislators of that party, they were exempted from disqualification.
- This **exception was deleted** from the schedule through a Constitution Amendment Act of 2003 because of frequent misuse.
- **2] Merger:** The second exception was '**merger**' which can be invoked when the original political party of a legislator merges with another party and not less than **two thirds of its legislators agree to such a merger**.

Interpretation of term 'merger' and issues with it

- It is this second exception contained in paragraph four of the schedule which has been taken recourse to by a large number of legislators across States and even in Parliament to defect to the ruling party.
- These legislators interpreted for themselves the term 'merger' to mean the merger of two thirds of legislators.
- Now, the same is being repeated in Maharashtra.
- But there is a little difference here.
- It appears that the dissidents of Shiv Sena believed that if they get the **two third number** they can form a separate group and topple the government and then form a government with the help of the Bharatiya Janata Party.
- The law **imposes the condition of merger** of the original political party.

- However, a recent judgment of the Goa Bench of the Bombay High Court (Girish Chodankar vs The Speaker, Goa State Legislative) that held that the merger of two thirds of Members of the Legislative Assembly **is deemed to be the merger of the original party** seems to have given them a ray of hope.
- So, the legal position is if the dissidents do not merge with another party they will be disqualified now or later.

Question of disqualification

- Disqualification petitions have been filed by the Shiv Sena against 16 of the dissidents under paragraph 2(1)(a) on the ground that they have **voluntarily given up the membership** of the party.
- The question of whether they have voluntarily given up the membership of the party is decided on **the basis of the conduct of a member**.
- In Ravi S. Naik vs Union of India (1994), the Supreme Court had said “an inference can be drawn from **the conduct of a member** that he has voluntarily given up the membership of the party.

Weakening the anti-defection law

- **Unprincipled defection:** The ongoing developments in Maharashtra have once again brought before the country the reality of what the Supreme Court also described as the political **evil of unprincipled defection**.
- But the order of the Supreme Court, on June 27, on petitions from the dissidents in the Shiv Sena, **gives undue advantage to the dissident legislators**.
- The Court has granted them **a longer time** to submit replies than the rules mandate.
- This order is going to set in motion certain political developments which will resurrect in a big way what the Supreme Court characterised as political evil.
- The **intervention by the Supreme Court** too has thrown up some crucial question.
- **Kihoto Hollohan case:** The first question is whether the Court can intervene at a stage prior to the decision by the Deputy Speaker.
- A Constitution Bench of the Supreme Court had held in Kihoto Hollohan (1993) that **judicial review cannot be available prior to the making of a decision** by the Speaker nor at an interlocutory stage of the proceeding.
- The notice of no-confidence against the Deputy Speaker has added another piece to the jigsaw puzzle.
- **Nabam Rebia case:** The Supreme Court had held in Nabam Rebia (2016) that the Speaker shall not decide the disqualification cases till the no-confidence motion against him is disposed of.

- The House rules clearly say that the notice of no-confidence against the Speaker/Deputy Speaker needs to be admitted in the first place which is done only by the Speaker.
- But it is the House which takes the final decision on the motion. If the notice of no-confidence does not contain specific charges, **it can be disallowed by the Speaker.**
- Further, the notice can be given only if the House is summoned.
- When the notice was given, the Assembly was not convened. So, the notice against the Deputy Speaker can have no validity under the rules.

Conclusion

The law, though not perfect, is a serious attempt to strengthen the moral content of democracy. There will be shortcomings in this Bill but as we see and identify those shortcomings we should try to overcome them.

2. Bharat New Car Assessment Programme (BNCAP)

The government is planning a new car assessment programme (NCAP) in India, to be called the Bharat NCAP or BNCAP.

What is Bharat NCAP?

- Bharat NCAP is a new car safety assessment programme which proposes a mechanism of awarding 'Star Ratings' to automobiles based upon their performance in crash tests.
- BNCAP standard is aligned with global benchmarks and it is beyond minimum regulatory requirements.
- The proposed Bharat NCAP assessment will allocate Star Ratings from 1 to 5 stars.
- The testing of vehicles for this programme will be carried out at testing agencies, with the necessary infrastructure.

Significance of Bharat NCAP

- BNCAP rating will provide consumers an indication of the level of protection offered to occupants by evaluating the vehicle in the areas of:
 1. Adult occupant protection
 2. Child occupant protection
 3. Safety assist technologies

- It will serve as a **consumer-centric platform**, allowing customers to opt for safer cars based upon their Star-Ratings.
- It will also promote a **healthy competition among original equipment manufacturers** (OEMs) in India to manufacture safer vehicles.
- It will ensure **structural and passenger safety** in cars, along with increasing the export-worthiness of Indian automobiles.
- It will prove to be a critical instrument in **making our automobile industry Aatmanirbhar**.

What about existing testing standards?

- India's **Central Motor Vehicle Rules (CMVR)** mandate a safety and performance assessment, including a basic conformity crash test by agencies like the ARAI and ICAT when vehicles go in for type approvals.
- However, **this does not involve a crash test rating**.
- Many **international automakers** have been found to sell products in India which **score much lower on safety and structural performance parameters**.
- This is done to **reduce costs in the price-sensitive Indian market**.
- However, **safety is moving up nowadays** the list of key purchase criteria in India as well.

How will a homegrown NCAP help?

- Global NCAP (GNCAP) crash tests for **many best-selling Indian vehicles have dismal ratings, many of them rated zero in a bias**.
- The government hopes that by facilitating these tests by in-house agencies, **more automakers will voluntarily undergo safety assessments** and build vehicles that hold up to global standards.

How will it compare with GNCAP?

- The government wants the two tests to be in **congruence with each other**.
- It intends to design the BNCAP to resemble the GNCAP, the global gold standard, as closely as possible, including the speed for **crash testing at 64kmph**.
- Central Motor Vehicle rules encompass **standards with respect to pedestrian protection** and seat belt reminders among others and will be retained in the testing under the BNCAP.
- The government hopes the move will **increase the export-worthiness of Indian automobiles**.

3. Mediation Bill: Not getting the Act together

- The Mediation Bill has been modified by the Parliamentary Standing Committee on Law and Justice.
- The panel has specifically said the Centre against making pre-litigation mediation mandatory. The Mediation Bill, 2021 further specifies that the laws of the Information Technology Act, 2000 would regulate the conduct of all mediations.
- The Bill acknowledges that mediation has matured and should be recognised as a profession, which is a significant advance above the part-time honorarium basis used in the court-annexed mediation systems.
- The Council, is comprised of three members:
 - a retired senior judge,
 - a person with knowledge in Alternative Dispute Resolution (ADR) law, and
 - an academic who has taught ADR.

Importance of Mediation:

- Mediation is a problem-solving strategy that may be applied in any issue for anyone. It also goes to the bottom of the problem in order to discover a real solution for all parties.
- Mediation can be found to aid increase communication in this factor. This procedure also provides a confidential and neutral forum in which the parties can discuss their disagreements.
- Mediation also encourages the parties to actively and personally participate in the issue. A final conclusion is reached addressing the parties' disagreement.

The Mediation Bill of 2021 is divided into four sections:

- Part I dealing with Domestic Mediations.
- Part III dealing with Singapore Convention mediations.
- Domestic mediation is defined in Part II of the Mediation Bill as one performed in India, when all or both parties usually reside in, are incorporated in, or have their enterprises in India.
- The adoption of the worldwide practise of using the words mediation and conciliation interchangeably is a notable element of the Mediation Bill, 2021. It is clear from the definition of mediation laid down in Part IV of the law.

At the moment, mediation in India might be:

- the court referred (courts may refer cases to mediation under the Code of Civil Procedure, 1908),
- private (for example, in a contract with a mediation provision), or
- as specified by a specific statute (such as the Commercial Courts Act, 2015, the Consumer Protection Act, 2019, or the Companies Act, 2013).
- Private ADR or mediation centres, as well as centres established by courts or tribunals, offer mediation services (known as court annexed mediation centres). According to the National Legal Services Authority, India has 464 ADR centres (397 operational), 570 mediation centres, 16,565 mediators, and over 53,000 cases were concluded through mediation in 2021-22.

The Way Forward:

- Enacting a legislation expressly for mediation would be the most critical step toward acknowledging mediation as an effective instrument for conflict resolution.
- The Mediation Bill, 2021, should be approved as quickly as possible, with all essential input from all parties.
- Additionally, efforts should be made to promote mediation by making it a necessary step prior to litigation.
- Increasing the number of compoundable offences: The number of compoundable offences, particularly property offences, may be raised.

4. Supreme Court's Ecologically Sensitive Zones (ESZ) notification

The Kerala State Assembly passed a resolution urging the Central government to exclude the State's human habitations, farmlands and public institutions from the purview of the Ecologically Sensitive Zones.

Supreme Court's notification on Ecologically Sensitive Zones

- The Supreme Court directive to maintain a minimum Ecologically Sensitive Zone (ESZ) of 1 km for all the Protected Forests, including the national parks and wildlife sanctuaries.
- The court has also suggested that if the prescribed ESZ goes beyond 1 km, the "wider margin" shall prevail as the zone.
- The apex court has also noted that all the ongoing activities except the prohibited ones in the ESZ may continue with the permission of the Principal Chief Conservator of Forests.

- One needs to obtain the necessary permission for such activities within six months.

Kerala opposing the notification

- Kerala has 25 protected areas, including 18 wildlife sanctuaries, six national parks and one community reserve.
- While most of the protected areas have the minimum prescribed ESZ of 1 km, the Parambikulam Tiger Reserve has an ESZ of 10.09 km in the South West boundary.
- Going by the court directive, some of the townships and human habitations located close to protected areas such as Kumili and Painavu in Idukki and Batheri in Wayanad will come under the ESZ.
- The State Government apprehends that the SC's notification may worsen the ground situation as it would adversely impact the interests of the State besides upsetting the lives of millions living near the protected areas.

What has been the reaction to the directive?

- The apex court order comes a decade after the **Western Ghats Ecology Expert Panel (WGEEP) report, aka Gadgil report**, that had radically influenced the socio-political, economic and ecological narratives in the State.
- Though not to the level of the high-pitched public unrest and protests that the State witnessed during the days preceding the WGEEP report, the ESZ notification too has triggered state-wide protests.
- The Kerala Catholic Bishops' Council, a powerful body catering to the special needs of the apostolate in the State, termed the apex court verdict as unfortunate.
- The State government has also decided to explore the option of approaching the Central Empowered Committee, as directed by the Supreme Court in its order, to convince the forum of the need to maintain zero ESZ in the areas of human habitation.

What is the way forward?

- Providing exceptions and amending the notification can address the issue in the State.
- The Kerala government may approach the apex court seeking exemption from the one-kilometer ESZ regime and to limit it to zero wherever required.
- Since 30% of Kerala is forested land and the Western Ghats occupies 48% of the State, the habitual population in the specified area will get affected.
- It will displace the people living in the specific region, causing an instability in the region, leading to demographic ramifications.

5. India-Bhutan Relations

After over two years of the COVID-19-induced lockdown, Bhutan will open its doors to tourists on September 23 with a new expensive policy for Indians and other foreign tourists.

India-Bhutan Relations: A backgrounder

- India and Bhutan have had long-standing diplomatic, economic and cultural relations
- Bhutan and India relations are governed by a friendship treaty that was renegotiated only in 2007, subjecting the Himalayan nation's security needs to supervision.
- Treaty of Friendship in 2007, which brought into the India-Bhutan relationship "an element of equality."
- The Treaty provides for perpetual peace and friendship, free trade and commerce, and equal justice to each other's citizens.

Treaty of Friendship

- On August 8, 1949, Bhutan and India signed the Treaty of Friendship, calling for peace between the two nations and non-interference in each other's internal affairs.
- India re-negotiated the 1949 treaty with Bhutan and signed a new treaty of friendship in 2007.
- The new treaty replaced the provision requiring Bhutan to take India's guidance on foreign policy with broader sovereignty and not require Bhutan to obtain India's permission over arms imports.
- Under the 2007 India-Bhutan Friendship Treaty, the two sides have agreed to "cooperate closely with each other on issues relating to their national interests."
- Neither Government shall allow the use of its territory for activities harmful to the national security and interest of the other

Significance of Bhutan to India

- **Buffer to China:** Bhutan is a buffer state between India and China. Bhutan shares a 470 km long border with China.
- **Vital connectivity through chicken's neck:** The Chumbi Valley is situated at the tri-junction of Bhutan, India and China and is 500 km away from the "Chicken's neck" in North Bengal.

- **Security in North-East:** Bhutan has in the past cooperated with India and helped to flush out militant groups in NE.
- **Chinese inroad in Bhutan:** China is interested in establishing formal ties with Thimphu, where it does not yet have a diplomatic mission.

Various cooperation developments

- **Maitri Initiative:** Bhutan is the first country to receive the Covishield vaccines under India's Vaccine Maitri Initiative.
- **Financial connectivity:** It has touched new heights through the launch of the RuPay card and the BHIM app.
- **Start-Up ecosystem:** Both nations successfully linked up the Start-Up systems of our two countries via structured workshops; through the National Knowledge Network & the Druk-REN connection.
- **E-Library project:** It has opened up new vistas of education and knowledge sharing between two countries.

Irritants in ties

- India has not invested significantly in Bhutan and other smaller neighbours that modicum of trust which is critical in building genuine goodwill.
- This means not only increasing people-to-people contact but also being sensitive to Bhutan's desire for a wider engagement beyond India's borders. This means respecting Bhutan as an equal, sovereign nation-state.

Conclusion

- The Indo-Bhutan friendship is built on shared values and aspirations, trust and mutual respect.
- Bhutan's foreign policy framework holds the relationship with India as being integral to its national interest.
- The Indian approach to Bhutan has necessarily to be tailored while being sensitive to the growing Bhutanese aspirations of being considered equal.

6. The scale of municipal finances is inadequate

Recently, the Indian Institute for Human Settlements (IIHS) analysed data from 80 ULBs across 24 States between 2012-13 and 2016-17 to understand ULB finance and spending, and found some key trends.

Health of municipal finances

- The **74th Constitution Amendment Act** was passed in 1992 mandating the setting up and devolution of powers to urban local bodies (ULBs) as the lowest unit of governance in cities and towns.
- Constitutional provisions were made for ULBs' fiscal empowerment.
- **Challenges in fiscal empowerment:** Three decades since, growing fiscal deficits, constraints in tax base expansion, and weakening of institutional mechanisms that enable resource mobilisation remain challenges.
- Revenue losses after implementation of the Goods and Services Tax (GST) and the pandemic have exacerbated the situation.

Analysing the trends in municipal finances

Recently, the Indian Institute for Human Settlements (IIHS) analysed data from 80 ULBs across 24 States between 2012-13 and 2016-17 to understand ULB finance and spending, and found some key trends.

1] Own sources of revenue less than half of total revenue

- **Key sources of revenue:** The ULBs' key revenue sources are taxes, fees, fines and charges, and transfers from Central and State governments, which are known as inter-governmental transfers (**IGTs**).
- **Important indicator of financial health:** The share of own revenue (including revenue from taxes on property and advertisements, and non-tax revenue from user charges and fees from building permissions and trade licencing) to total revenue is an important indicator of ULBs' fiscal health and autonomy.
- The study found that the ULBs's own revenue was **47% of their total revenue**.

2] High dependence on IGTs

- Most ULBs were highly dependent on external grants – between 2012-13 and 2016-17, **IGTs accounted for about 40% of the ULBs' total revenue**.
- Transfers from the Central government are as stipulated by the **Central Finance Commissions** and through grants towards specific reforms, while State government transfers are as **grants-in-aid and devolution** of State's collection of local taxes.

3] Tax revenue is largest revenue for larger cities, while smaller cities are more dependent on grants

- here are considerable differences in the composition of revenue sources across cities of different sizes.

- Class I-A cities (population of over 50 lakh) primarily depend on their own tax revenue, while Class I-B cities and Class I-C cities (population of 10 lakh-50 lakh and 1 lakh-10 lakh, respectively) rely more on IGTs.
- Own revenue mobilisation in Class I-A cities increased substantially.
- It was primarily driven by increases in non-tax revenue

Way forward

- **Improving own revenue:** It is essential that ULBs leverage their own revenue-raising powers to be fiscally sustainable and empowered and have better amenities and quality of service delivery.
- **Stability in IGT:** Stable and predictable IGTs are particularly important since ULBs' own revenue collection is inadequate.
- Measures need to be made to also cover O&M expenses of a ULB for better infrastructure and service.
- Tapping into property taxes, other land-based resources and user charges are all ways to improve the revenue of a ULB.

Conclusion

The health of municipal finances is a critical element of municipal governance which will determine whether India realises her economic and developmental promise.

7. India Projected To Surpass China As World's Most Populous Country During 2023: UN Report

Recently, World Population Prospects 2022 was released by the United Nation.

Key Highlights

- The world's **population continues to grow, but the pace of growth is slowing down.**
 - In 2020, the global **growth rate fell under 1% per year** for the first time since 1950.
- **More than half of the projected increase** in global population up to 2050 will be **concentrated in just eight countries** including India.
 - The 46 least developed countries (LDCs) are among the world's fastest-growing.
- The **population of older persons is increasing both in numbers and as a share** of the total.

- The share of the global population aged 65 years or above is projected to rise from 10% in 2022 to 16% in 2050.
- A **sustained drop in fertility has led to an increased concentration of the population at working ages** (between 25 and 64 years), creating an opportunity for accelerated economic growth per capita.
- **International migration is having an important impact on population trends** in some countries.
 - Over the next few decades, migration will be the sole driver of population growth in high-income countries.

Significance of India Overtaking China

- Initially, there was a concern about **overcrowding**.
 - Those concerns no longer exist because India has **achieved a replacement rate of fertility**.
- The concern now is not about the absolute numbers but the **quality of life for the people**.
- The focus now has shifted to whether India can **reduce poverty, provide healthcare facilities, education etc.**

About the World Population Prospects

- The **Population Division of the UN** has been publishing the WPP in a **biennial cycle** since 1951.
- Each revision of the WPP provides a **historical time series of population indicators** starting in 1950.
- It does so by **taking into account newly released national data to revise estimates of past trends in fertility, mortality or international migration**.

8. National Child Labour Project (NCLP)

The Centre does not have any data on child labour in the country and a reason for this is the drying up of budgetary provisions meant for the National Child Labour Project (NCLP).

What is Child Labour?

- The term “child labour” is often defined as work that deprives children of their childhood, their potential and their dignity, and that is harmful to physical and mental development.
- It refers to work that:

1. is mentally, physically, socially or morally dangerous and harmful to children; and/or
2. interferes with their schooling by: depriving them of the opportunity to attend school; obliging them to leave school prematurely; or requiring them to attempt to combine school attendance with excessively long and heavy work.

National Child Labour Project (NCLP)

- The NCLP Scheme is a **Central Sector Scheme** under the Ministry of Labour.
- The children in the **age group of 5-8 years** are directly linked to the **formal education** system through a close coordination with the Sarva Shiksha Abhiyan.
- A dedicated online portal named **PENCiL** (Platform for Effective Enforcement for No Child Labour) is developed for better monitoring and implementation.

Various provisions against Child Labour

- **Article 23** of the Indian Constitution states that any type of forced labour is prohibited.
- **Article 24** states that a child under 14 years cannot be employed to perform any hazardous work.
- **Article 39** states that “the health and strength of workers, men and women, and the tender age of children are not abused”.
- The **Child Labour Act (Prohibition and Regulation) 1986** prohibits children under the age of 14 years to be working in hazardous industries and processes.

9. Private Member's Bill

Opposition members protested against the introduction of a private member's Bill on the repeal of The Places of Worship (Special Provisions) Act, 1991, in the Rajya Sabha.

- A private member's Bill is different from a government Bill and is piloted by an MP who is not a minister. An MP who is not a minister is a private member.
- Individual MPs may introduce private member's Bill to draw the government's attention to what they might see as issues requiring legislative intervention.

Difference between private and government Bills

- While both private members and ministers take part in the lawmaking process, Bills introduced by private members are referred to as private member's Bills and those introduced by ministers are called government Bills.
- Government Bills are backed by the government and also reflect its legislative agenda.
- The admissibility of a Private Bill is decided by the Chairman in the case of the Rajya Sabha and the Speaker in the case of the Lok Sabha.
- Before the Bill can be listed for introduction, the Member must give at least a month's notice, for the House Secretariat to examine it for compliance with constitutional provisions and rules on legislation.
- While a government Bill can be introduced and discussed on any day, a private member's bill can only be introduced and discussed on Fridays.

Has a private member's bill ever become a law?

- No private member's Bill has been passed by Parliament since 1970.
- To date, Parliament has passed 14 such Bills, six of them in 1956.
- In the 14th Lok Sabha, of the over 300 private member's Bills introduced, roughly four per cent were discussed, the remaining 96 per cent lapsed without a single dialogue.
- The selection of Bills for discussion is done through a ballot.

10. Helping out Sri Lanka

In news

India, which held an all-party meeting on the crisis in Sri Lanka, promised to support Sri Lanka that is struggling to deal with the devastation caused by the economic crisis.

The Government of India said that "fiscal prudence and responsible governance" are the lessons to be learnt from the situation in Sri Lanka and that there should not be a "culture of freebies".

What are the reasons for the Sri Lankan crisis?

- At the end of the civil war [with the Liberation Tigers of Tamil Eelam] in 2009, Sri Lanka had to go to the International Monetary Fund (IMF) for support.

- Over the years, there has been **economic mismanagement** (fiscal and budgetary) and **political malfeasance** caused by the successive Sri Lankan government.
- The crisis is a consequence of the **twin deficit problem** - an unsustainable current account deficit and an unsustainable fiscal deficit.
- **Tourism collapsed** starting with the Easter bombings, then the pandemic.
- Again because of the pandemic, **remittances from migrant workers declined**.
- The import bill rose because of the **war on Ukraine** and the **spike in oil prices**.
- On the domestic front, however, the fiscal crisis is completely home-made by the Rajapaksa government. It was responsible for three specific things,
 1. Unaffordable populism by cutting taxes,
 2. Erratic economic management - for example, the abrupt shift to organic farming; and
 3. It did not go to the IMF early enough.
- The big tax holiday that Mr. Gotabaya Rajapaksa gave, soon after he assumed office, had precipitated the crisis.

To what extent is the situation in Sri Lanka comparable to that in Indian States?

- Some Indian States are borrowing money and using it on freebies, which do not add to productivity or future economic activity or production capacity.
- But they add to current consumption. So, they do not support long-term growth.
- But, Indian States can't be compared to Sri Lanka as Sri Lanka is an independent economic entity whereas the Indian States are part of a national economic entity.
- States in India do not have their own balance of payments, they do not have debt denominated in external currency like Sri Lanka.
- Sri Lanka can deal with domestic debt by printing currency, as it did, but States in India cannot do that.

The Supreme Court has said there must be some norms about how much can be spent on freebies.

11. Russia, Ukraine seal grain exports deal

Kyiv and Moscow penned a landmark agreement with Turkey and the UN to unblock Ukraine's Black Sea grain exports after a Russian blockade raised fears of a global food crisis.

Deal about

- The deal was agreed through UN and Turkish mediation.
- It establishes safe corridors along which Ukrainian ships can come in and out of three designated Black Sea ports in and around Odessa.
- Both sides also pledged not to attack ships on the way in or out.

Why was the grain export deal signed?

- Ukraine is one of the world's largest exporters of wheat, corn and sunflower oil, but Russia's invasion of the country and naval blockade of its ports have halted shipments.
- Some grain is being transported through Europe by rail, road and river, but the prices of vital commodities like wheat and barley have soared during the nearly five-month war.
- Ukrainian and Russian military delegations reached a tentative agreement last week on a UN plan that would also allow Russia to export its grain and fertilizers.
- Ukraine is expected to export 22 million tons of grain and other agricultural products that have been stuck in Black Sea ports due to the war.

What is the grain export deal?

- The deal makes provisions for the safe passage of ships.
- It foresees the establishment of a control center in Istanbul, to be staffed by UN, Turkish, Russian and Ukrainian officials, to run and coordinate the process.
- Ships would undergo inspections to ensure they are not carrying weapons.
- Ukraine has insisted that no Russian ship would escort vessels and that there would be no Russian representative present at Ukrainian ports.
- Ukraine also plans an immediate military response in case of provocations.

12. How is the Vice-President of India elected?

A major political party has declared that West Bengal Governor Jagdeep Dhankhar would be the candidate for the post of Vice-President.

About Vice President of India

- The VP is the deputy to the head of state of the Republic of India, the President of India.
- His/her office is the **second-highest constitutional office** after the president and ranks second in the order of precedence and first in the line of succession to the presidency.
- The vice president is **also a member of the Parliament** as the ex officio Chairman of the Rajya Sabha.

Qualifications

- As in the case of the president, to be qualified to be elected as vice president, a person must:
 1. Be a citizen of India
 2. Be at least 35 years of age
 3. Not hold any office of profit
- Unlike in the case of the president, where a person must be qualified for election as a member of the Lok Sabha, the **vice president must be qualified for election as a member of the Rajya Sabha.**
- This difference is because the vice president is to act as the ex officio Chairman of the Rajya Sabha.

Roles and responsibilities

- When a bill is introduced in the Rajya Sabha, the vice president decides whether it is a money bill or not.
- If he is of the opinion that a bill introduced in the Rajya Sabha is a money bill, he shall refer it to the Speaker of the Lok Sabha.
- The vice president also acts as the chancellor of the central universities of India.

Election procedure

- **Article 66** of the Constitution of India states the manner of election of the vice president.
- The vice president is elected indirectly by members of an electoral college consisting of the **members of both Houses of Parliament** and **NOT the members of state legislative assembly.**
- The election is held as per the system of proportional representation using single transferable votes.
- The voting is conducted by Election Commission of India via **secret ballot.**

- The Electoral College for the poll will comprise 233 Rajya Sabha members, 12 **nominated Rajya Sabha members** and 543 Lok Sabha members.
- The **Lok Sabha Secretary-General** would be appointed the **Returning Officer**.
- Political parties **CANNOT issue any whip** to their MPs in the matter of voting in the Vice-Presidential election.

Removal

- The Constitution states that the vice president can be removed by a resolution of the Rajya Sabha passed by an **Effective majority** (majority of all the then members) and agreed by the Lok Sabha with a simple majority(Article 67(b)).
- But no such resolution may be moved unless **at least 14 days' notice in advance** has been given.
- Notably, the Constitution does not list grounds for removal.
- No Vice President has ever faced removal or the deputy chairman in the Rajya Sabha cannot be challenged in any court of law per Article 122.

13. The judgment on the Burkapal Maoist attack

A National Investigating Agency (NIA) court in Dantewada, acquitted 121 tribals, including a woman, who were arrested in connection with a 2017 Maoist attack.

What led to the arrest?

- On April 24, 2017, a combined patrolling party – comprising 72 jawans from the Central Reserve Police Force (CRPF)'s 74th battalion and district police – were guarding a road cum bridge construction in Sukma's Burkapal when they were ambushed by a large group of 200-250 alleged Maoists.
- The attackers fired and hurled explosives at the jawans following which 25 of the security personnel were killed and seven others injured.

What was the alleged role of the arrested tribals?

- The investigators alleged that the arrested villagers were members of the banned CPI (Maoist) Party.
- According to the Union Home Ministry, CPI (Maoist) came into existence in 2004, following a merger between the People's War Group (PWG), and the Maoist Communist Centre of India (MCCI).
- The prosecution also submitted that they had been in possession of weapons.
- In short, it was alleged that the arrested tribals had planned the conspiracy of the attack and had taken part in it armed with sophisticated firearms and improvised explosive devices and grenades.

- These acts prohibit taking membership of an unlawful organisation and indulging in any unlawful activity for it.
- Apart from this, provisions of the Arms Act, 1959, and Explosives Act, 1908 were also slapped.

What does the judgment say?

- The order issued by Special Judge (NIA Act/Scheduled Crimes registered in Sukma and Bijapur in Dantewada) says that the statement of the investigating officer has not been supported by police witnesses and independent witnesses of the prosecution.
- Seizure of deadly weapons and firearms has not been proved to be made from the accused.
- It adds that 22 (of the 25) prosecution witnesses were neither aware of the incident nor did they know the accused.
- Even after those witnesses were declared hostile by the prosecution and subjected to direct questions, no fact about the incident had emerged while they were being examined.
- Thus the prosecution has not been able to prove its case beyond doubt.

What is the way forward?

- The acquitted now have the option of approaching a higher court to claim damages.
- However, if activists are to be believed there has hardly been any instance of a successful petition.
- Additionally, the legal hassles involved may dissuade them and the prosecution could challenge said acquittal in a higher court.

14. China-Pakistan Economic Corridor

India has severely criticized the reported move by both China and Pakistan for third-party participation in some projects on the China-Pakistan Economic Corridor (CPEC) that passes through Pakistan-occupied Kashmir (PoK).

China-Pakistan Economic Corridor (CPEC)

- The CPEC, one of the most ambitious components of Beijing's Belt and Road Initiative (BRI), was announced to great fanfare in 2015.
- CPEC is a collection of infrastructure projects that are under construction throughout Pakistan beginning in 2013.
- Originally valued at \$47 billion, the value of CPEC projects is worth \$62 billion as of 2020.

- It is intended to rapidly upgrade Pakistan's required infrastructure and strengthen its economy by the construction of modern transportation networks, numerous energy projects, and SEZs.
- On 13 November 2016, CPEC became partly operational when Chinese cargo was transported overland to Gwadar Port for onward maritime shipment to Africa and West Asia.

In News

- The lack of progress has led to numerous reports about CPEC being at a near standstill in the country.
- Gwadar, despite being the epicenter of multibillion-dollar projects, lacks basic necessities like reliable access to water and electricity, let alone other facilities.
- The Baloch freedom movement is another impediment to the stalled project.
- There have been sporadic attacks in Gwadar and elsewhere in the province and the country to discourage Chinese investments in the province.
- China is also seeking to deploy its Army in the CPEC projects, to which Pakistan has contested.

India's reservation

- The GoI, which shares tense relations with Pakistan, objects to the CPEC project as upgrade works to the Karakoram Highway are taking place in Gilgit-Baltistan.
- This is the territory illicitly occupied by Pakistan in 1947-48.
- During the visit of Indian PM Modi to China in 2015, the Indian FM, Sushma Swaraj reportedly told the Chinese.
- India did not object to the Chinese construction of the Karakoram Highway which was built between 1959 and 1979.

15. Indian sports bodies under scandal and scrutiny

A seven-member delegation of the world football governing body FIFA and the Asian Football Confederation had visited the country for a meeting with the Committee of Administrators (CoA).

- Both the **All-India Football Federation (AIFF)** and the **Indian Olympic Association (IOA)** face possible ban/suspension if elections to the executive body aren't carried out straight away.

- The CoA was entrusted with the running of football by the Supreme Court after the **AIFF executive committee was dissolved for violating the sports code of the central government.**
- It was mandated that the **new constitution of the AIFF has to be amended** by 31 July, 2022 and **elections to the national football body** be completed by 15 September, 2022.
- **If not, India will face a FIFA ban.**
- Hockey India has additionally come beneath scrutiny by way of the **International Hockey Federation (FIH)** for the lengthen in engaging in elections.
 - The FIH wrote to the CoA, which is **currently managing hockey** in the country after the Delhi High Court found the **Hockey India Executive Board to be in violation of the National Sports Code.**
 - The FIH's letter emphasizes the need to **conduct elections on the basis of rules laid down by the Government of India.**
 - It also raised concerns about Hockey India working together ahead of the **2023 World Cup, which India is scheduled to host in January.**
- The **IOA** is also being warned of a possible suspension by the **International Olympic Committee (IOC).**
 - Elections not held yet.
 - A recent letter from the IOC to members of the IOA's Executive Council expressed **concerns about a number of legal proceedings** that have led to delays and unnecessary complications.

While considering granting recognition as NSF to an organisation for the first time, the Ministry considers the following:

- The **legal status of the organisation as a voluntary registered body**, not being a proprietary concern or partnership firm.
- **Sole purpose** for the development of the relevant sport.
- Status as the **apex body for the relevant sport in India** and its role in promoting the sport in the country.

16. The dispute between Telangana and Andhra Pradesh over flooding of Bhadrachalam

The waters of the Godavari River dropped below danger levels in Bhadrachalam in Telangana, the focus has now shifted to the backwaters of the Polavaram project across the river in Andhra Pradesh territory.

What does the dispute concern?

- The Andhra Pradesh government raised the height of the upper cofferdam of the Polavaram project from 44 to 42.50 metres to increase its capacity so that it can withstand massive floods.
- The task was completed in 48 hours.
- The upper cofferdam was built to withstand 28.50 lakh cusecs of flood.
- It was felt that if the inflow was more than the capacity, water would flow over the upper cofferdam.
- Expecting more inflows, the State government increased the dam height by 1.50 metres with 12,000 cubic metres of rock filling.
- The 1.50-metre increase in the height of the dam by the Water Resources Department (WRD) of Andhra Pradesh raised some hackles in Telangana.

What is Telangana's position?

- As a result of the ongoing construction of Polavaram project, the time taken for water level to recede at Bhadrachalam will be longer.
- More area on both banks of the river will remain submerged for a longer time.
- The Full Tank Level (FTL) of 45.7 metres designed at the dam site and this will actually translate into backwater level of 45.5 ft. at Bhadrachalam throughout the year.
- As Godavari is a live river with a rich yield from tributaries, mainly Pranahita, Sabari and Indravati. At 45.5 ft., the river would have crossed the first danger level of 43 ft.
- And in unprecedented wave of flood like this, the level has touched 70 ft. against the third and final danger level of 53 ft.
- The Telangana government was mainly concerned about five villages on the river banks towards Telangana, which were part of Andhra Pradesh.
- If the villages were handed over to Telangana, it will quicken rehabilitation and other trouble-shooting measures as they were a contiguous block.
- One of the villages, Purshothapatnam, had lands owned by the famous temple of Lord Ram at Bhadrachalam.
- The Telangana government had no control over these villages though official machinery had to pass through them to reach out to victims of the State beyond them.
- Similarly, Andhra Pradesh government had to first locate its men and machinery in villages of Telangana en route to proceed to Purshothapatnam and four other habitations.

What is Andhra Pradesh's position?

- The State government believes that the 'swift decision' to raise the dam height helped prevent damage to the cofferdam and overflowing of flood waters

from the cofferdam. But, at the same time, Bhadrachalam witnessed heavy floods. It was after a gap of nearly 32 years that the temple town was marooned as the Godavari River touched 70 feet.

- The Andhra Pradesh Minister for Water Resources said there was no dispute about FTL as Polavaram was a mega national project.
- The project had all the clearances from Central Water Commission (CWC) and the Central government.
- He denied allegations of Telangana that the FTL was raised by three metres and opined that there was no question of merger of disputed villages with Telangana.

What is the way forward?

- The CWC had not arranged the spillway to discharge flood after it had designed the project by increasing the Probable Maximum Flood (PMF) from 36 lakh cusecs to 50 lakh cusecs.
- It is futile to argue about dam height at this stage as what was required was to take appropriate steps to mitigate the problems of submergence by backwaters.
- The issue of backwaters could be revisited by taking the help of Pune based Central Water and Power Research Institute.
- It is important to keep in mind PMF with a one-thousand-year frequency which was a cardinal principle of designing irrigation projects like Polavaram because of changes in climatic conditions due to cloud burst.

17. President - Not a mere Rubber Stamp

Once the President is elected, the excitement subsides and for the next five years not much attention is paid to the Rashtrapati Bhavan.

Constitution provided regarding the President

- **Nominal head-** Dr. B.R. Ambedkar quoted that our President is merely a nominal figurehead and has no discretion and powers of administration.
- **Article 53-** It says that the executive power of the Union shall be vested in the President and shall be exercised by him either directly or through officers subordinate to him in accordance with Constitution.
- It means the President exercises these powers only on the aid and the advice of the Council of Ministers.
- **Method of election-** It is an indirect election which is proportional representation by a single transferrable vote.

- Before the voting, comes the nomination stage, where the candidate intending to stand in the election, files the nomination along with a signed list of 50 proposers and 50 seconders.
- **Article 54-** The President is elected by an electoral college consisting of only the elected members of both Houses of Parliament and the elected members of the State and Union Territory Assemblies.
- The vote of an MLA is calculated by dividing the total population of the State (as per the 1971 Census) by the total strength of the Assembly, and then the quotient is divided by one thousand.
- The elections are conducted and overseen by the Election Commission (EC) of India.

Is the office of President a mere rubber stamp?

- **Moral authority-** The population of the country is a crucial factor in the election of the President and gives the President a greater moral authority.
- **Disagree with decisions-** The President does not directly exercise the executive authority of the Union but he can disagree with the decision of the Council of Ministers, caution and counsel them.
- **Ask for reconsideration of decisions-** The President can ask the Cabinet to reconsider its decisions but if the Cabinet, after such reconsideration, sends the same proposal back without any change, the President will have to sign it.
- That is because, it is the Cabinet which is responsible for the government's decisions and the President is in no way personally responsible for those decisions which he or she approves.
- **Broader view-** The Constitution of India gives the President the freedom to take a broader view of things uninfluenced by the narrow political view of the executive.
- This can be seen from the oath that contains two solemn promises.
 - The President shall preserve, protect and defend the Constitution.
 - The President shall devote himself or herself to the service and the well-being of the people of India.
- **Influence the government-** There were Presidents such as Rajendra Prasad and Sarvepalli Radhakrishnan who openly differed with the government on certain policy issues and could exert tremendous influence on the government.
- It is possible for a President to intervene on behalf of the citizenry against the tyranny of the executive and persuade it to give up its ways.

18. SC upholds powers of arrest raid under PMLA for ED

The Supreme Court upheld the core amendments made to the Prevention of Money Laundering Act (PMLA), which gives the government and the Enforcement Directorate (ED) virtually unbridled powers of summons, arrest, and raids, and makes bail nearly impossible while shifting the burden of proof of innocence on to the accused rather than the prosecution.

- The Supreme Court called the PMLA a law against the “scourge of money laundering” and not a hatchet wielded against rival politicians and dissenters.
- Money laundering is an offence against the sovereignty and integrity of the country. It is no less a heinous offence than the offence of terrorism, the court noted.

In news

- The verdict came on an extensive challenge raised against the amendments introduced in 2002 Act **by way of Finance Acts**.
- The three-judge Bench said the method of introduction of the amendments through Money Bills would be separately examined by a larger Bench of the top court.

Petitions

- Petitions were filed against the amendments, which the challengers claimed would **violate personal liberty**, procedures of law and the constitutional mandate.
- The petitioners included many veteran politicians who all claimed that the “**process itself was the punishment**”.
- There were submissions that the **accused’s right against self-incrimination suffered** when the ED summoned them and made them sign statements on threats of arrest.
- But the court said these **statements were recorded as part of an “inquiry”** into the proceeds of crime.
- A **person cannot claim right against self-incrimination** at a summons stage.

Can the ED investigate cases of money laundering retrospectively?

- If an ill-gotten property is acquired before the year 2005 (when the law was brought in) and disposed off, then there is no case under PMLA.
- But if proceeds of the crime were possessed before 2005, kept in storage, and used after 2005 by buying properties, the **colour of the money is still black and the person is liable to be prosecuted under PMLA**.

Under Section 3 of PMLA, a person shall be guilty of money-laundering, if such person is found to have directly or indirectly attempted to indulge or knowingly assist a party involved in one or more of the following activities:

- Concealment; possession; acquisition; use; or projecting as untainted property; or claiming as untainted property in any manner etc.

19. CSR funds for 'Har Ghar Tiranga'

Recently, government announced for companies to spend CSR funds on activities related to 'Har Ghar Tiranga' campaign. Government is organising the "Har Ghar Tiranga Campaign" as a part of Azadi ka Amrit Mahotsav. The campaign is intended to encourage people to hoist national flag at their home to celebrate the 75th years of India's independence.

The Corporate Social Responsibility (CSR):

- Some classes of profitable companies are mandated to transfer at least 2% of their annual average net profit towards the CSR activities, in accordance with the Companies Act, 2013.
- As per governments' circular, CSR funds will be spent for the activities related to Har Ghar Tiranga campaign including mass scale production & supply of the national flag, amplification efforts and other related activities.
- These activities are eligible for CSR funds, in accordance with the provisions of Schedule VII of the Companies Act. Schedule VII is related to promotion of education relating to culture and CSR activities.
- Government's circular also provides that, companies can undertake these activities, which are subject to complying with Companies (CSR Policy) Rules, 2014.

Har Ghar Tiranga campaign:

Har Ghar Tiranga is a campaign under Azadi Ka Amrit Mahotsav. It is being organised by government for encouraging people to bring the National Flag home and hoist to celebrate the 75th year of India's independence. The main objective of this initiative is to invoke the feeling of patriotism in hearts of people. The campaign also seeks to raise awareness on the Indian National Flag.

20. The poor state of India's fiscal federalism

The centralisation of fiscal powers in India has been blamed for the poor fiscal health of the states.

Centralisation of fiscal powers: A background

- Jawaharlal Nehru believed that socio-economic inequities could be addressed through the planning process.
- A degree of **centralisation in fiscal power** was required to address the concerns of socio-economic and regional disparities.
- As a result asymmetric federalism is inherent to the Indian Constitution.
- India was never truly federal – it was a 'holding together federalism' in contrast to the 'coming together federalism,' in which smaller independent entities come together to form a federation (as in the United States of America).
- In fact, the Government of India Act 1935 was more federal in nature than the Constitution adopted on January 26, 1950 as the first offered more power to its provincial governments.
- Historically, India's **fiscal transfer** worked through two pillars, i.e., the **Planning Commission and the Finance Commission**.
- But the waning of planning since the 1990s, and its abolition in 2014, led to the Finance Commission becoming a major means of fiscal transfer as the commission itself broadened its scope of sharing all taxes since 2000 from its original design of just two taxes – income tax and Union excise duties.
- Today, the Finance Commission became a politicised institution with arbitrariness and **inherent bias towards the Union government**.
- Tamil Nadu government constituted a committee under Justice P.V. Rajamannar in 1969, the first of its kind by a State government, to look at Centre-State fiscal relations and recommend more transfers and taxation powers for regional governments.

Implications of fiscal centralisation in India

- **Use of non-divisive cess:** Even the increased share of devolution, mooted by the **Fourteenth Finance Commission, from 32% to 42%**, was subverted by raising non-divisive cess and surcharges that go directly into the Union kitty.
- This non-divisive pool in the Centre's gross tax revenues shot up to **15.7% in 2020 from 9.43% in 2012**, shrinking the divisible pool of resources for transfers to States.
- **Cut in the corporate tax:** The recent drastic cut in corporate tax, with its adverse impact on the divisible pool, and ending GST compensation to States have had huge consequences.

- **States paying high interest rates:** States are forced to pay differential interest – about 10% against 7% – by the Union for market borrowings.
- **Centrally sponsored schemes curbing autonomy:** There are 131 centrally sponsored schemes, with a few dozen of them accounting for 90% of the allocation, and States required to share a part of the cost.

Conclusion

In sum, India's fiscal federalism driven by political centralisation has deepened socio-economic inequality, belying the dreams of the founding fathers who saw a cure for such inequities in planning. It has not altered inter-state disparities either.

21. Anushilan Samiti

Union Education and Skill Development Minister has urged NCERT and the Education fraternity to include enough information about Anushilan Samiti, especially in the upcoming National Curriculum Framework

Anushilan Samiti

- Anushilan Samiti was an Indian fitness club, which was actually used as an underground society for anti-British revolutionaries.
- It was founded by Satish Chandra Pramatha Mitra, Aurobindo Ghose and Sarala Devi.
- In the first quarter of the 20th century it supported revolutionary violence as the means for ending British rule in India.
- The organisation arose from a conglomeration of local youth groups and gyms (akhara) in Bengal in 1902.
- It had two prominent, somewhat independent, arms in East and West Bengal, Dhaka Anushilan Samiti (centred in Dhaka), and the Jugantar group (centred in Calcutta).
- It challenged British rule in India by engaging in militant nationalism, including bombings, assassinations, and politically motivated violence.

Revolutionary activities

- The Samiti collaborated with other revolutionary organisations in India and abroad.
- It was led by the nationalists Aurobindo Ghosh and his brother Barindra Ghosh, influenced by philosophies like Italian Nationalism, and the Pan-Asianism of Kakuzo Okakura.

- The Samiti was involved in a number of noted incidents of revolutionary attacks against British interests and administration in India, including early attempts to assassinate British Raj officials.
- These were followed by the 1912 attempt on the life of the Viceroy of India, and the Seditious conspiracy during World War I, led by Rash Behari Bose and Jatindranath Mukherjee respectively.

Other personalities associated with Anushilan Samiti

- Legends like, Deshabandhu Chittaranjan Das, Surendranath Tagore, Jatindranath Banerjee, Bagha Jatin were associated with Anushilan Samiti.
- Dr Hedgewar who established the Rashtriya Swayamsevak Sangh (RSS) was also an alumnus of the Samity.

22. Monkeypox is 'Public Health Emergency'

The World Health Organization's Director-General has declared monkeypox a public health emergency of international concern (PHEIC) July 23, 2022.

PHEIC

Under the International Health Regulations (IHR), a public health emergency is defined as "an extraordinary event which is determined, as provided in these Regulations: to constitute a public health risk to other States through the international spread of disease; and to potentially require a coordinated international response".

What criteria does the WHO follow to declare PHEIC?

- PHEIC is declared in the event of some "serious public health events" that may endanger international public health.
- The responsibility of declaring an event as an emergency lies with the Director-General of the WHO and requires the convening of a committee of members.

Implications of a PHEIC being declared

The PHEIC is the highest level of alert the global health body can issue.

- There are some implications of declaring a PHEIC for the host country.

- Only polio and SARS-CoV-2 were ongoing PHEIC prior to monkeypox.
- Declaring a PHEIC may lead to restrictions on travel and trade.

23. India-South Korea Bilateral Partnership

There is much potential for Seoul to become the fourth pillar in New Delhi's Indo-Pacific strategy.

Bilateral relation between the two countries in the past?

- During the past five years, India and South Korea have experienced considerable divergence in their respective national objectives.
- **Multilateral initiatives-** There was a clear drift by South Korea away from multilateral security initiatives led by the United States, such as the Quad (the U.S., Australia, India and Japan).
- **Trade-** Trade between the two countries was sluggish and there was no major inflow of South Korean investment into India.
- India and South Korea were also trying to upgrade their Comprehensive Economic Partnership Agreement (CEPA) agreement, but couldn't.
- **Defence-** In 2020, India and South Korea signed a **Roadmap for Defence Industries Cooperation**.
- However, due to the lack of political and strategic alignment, nothing came of it.
- **Security-** During the Moon Jae-in presidency in Korea, Japan and South Korea were at loggerheads.
- There was little scope for strengthening the trilateral security dialogue in the region between India, South Korea and Japan.

What is the new shift in South Korean policy?

- The newly elected Korean President, Yoon Suk Yeol, has brought about a paradigm shift in South Korean foreign and security policies.
- He has proposed that South Korea should step up to become a "global pivotal state, anchored in liberal values and a rules-based order".
- South Korea's new willingness to become a global pivotal state and play an active role in regional affairs is bound to create multiple opportunities for a multi-dimensional India- Korea partnership.
- India can help South Korea withstand Chinese pressure and North Korean threats.

24. Strategy for Monkeypox

The World Health Organization declared monkeypox a public health emergency of international concern (PHEIC).

Monkey pox

- Monkeypox is a zoonosis, that is, a disease that is transmitted from infected animals (squirrels, Gambian poached rats, dormice, some species of monkeys) to humans.
- It is caused by monkeypox virus, a member of the Orthopoxvirus genus in the family Poxviridae.
- African rodents and monkeys are suspected of transmission and infection.
- Transmission occur through contact with bodily fluids, lesions on the skin or on internal mucosal surfaces, respiratory droplets and contaminated objects.
- Human-to-human transmission is limited.
- Until now, monkeypox fell under the category of neglected tropical diseases.

PHEIC

PHEIC is defined in the International Health Regulations (IHR) as, “an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease and to potentially require a coordinated international response”.

- PHEIC is the highest level of alert the global health body can issue but is just one step short of a ‘pandemic’ classification.
- Only polio and SARS-CoV-2 were ongoing PHEIC prior to monkeypox.
- After a split verdict at the IHR Emergency Committee meeting on whether monkeypox deserves to be termed a PHEIC, the WHO Director-General declared monkeypox PHEIC.
- **Factors that influenced the decision**
 1. Information provided by countries
 2. The three fulfilled criteria for declaring a PHEIC under the International Health Regulations
 - serious, sudden, unusual or unexpected
 - carries implications for public health beyond the affected State’s national border
 - may require immediate international action
 3. Advice of the Emergency Committee
 4. Scientific principles and evidence which remains unclear
 5. The risk to human health

What strategy has to be followed to contain the disease?

- The experience from the COVID-19 pandemic has shown that governments implement measures to avoid 'panic'.
- Government must begin coordinated action with the States to accurately summarise and disseminate the extent of the threat.
- Indian labs and biotech companies must step up research and mine their arsenal to prepare adequate defences if the need arises.
- States with recently imported cases of monkeypox in the human population have to implement response actions with the goal of stopping human-to-human transmission of the virus.
- Representatives of affected communities, elected officials and civil society, and behavioural scientists are to be engaged to advise on approaches to avoid the stigmatization of affected persons.

25. A global order caught up in a swirl of chaos

Adrift at the end of the 20th century, the world of the 21st century is proving to be highly chaotic.

Lack of strong European leadership

- Europe has been undergoing several major changes in recent months
- Germany, which has steered European politics for almost two decades under Angela Merkel, now has a Chancellor (Olaf Scholz) who has hardly any foreign policy experience.
- Without Germany's steadying hand, Europe would be virtually adrift in troubled waters.
- Emmanuel Macron may have been re-elected the President of France, but his wings have been clipped with the Opposition now gaining a majority in the French National Assembly.
- The United Kingdom is in deep trouble, if not disarray.
- Consequently, at a time when actual and moral issues require both deft and firm handling, Europe appears rudderless.
- **Economic impact:** Compounding this situation is the negative economic impact of the war in Ukraine.

Growing Russia-China closeness and its implications for Indo-Pacific

- The situation in Europe is still to be decided, but what is also becoming obvious is that outside Europe, the conflict is beginning to take on a different dimension, leading to the emergence of new patchworks of relationships.
- China's growing influence in the Pacific region, including in the Indo-Pacific, and further strengthened by the entente with Russia, may hardly be a by-

product of the Ukraine-Russia conflict, but it has **induced fresh energy into a possible conflict** between two rival power blocs.

- **Asia unwilling to take sides:** Understanding the changing nature of relationships in Asia, and considering that most Asian nations appear unwilling to take sides in the event of a conflict, is important.
- **No unity of purpose:** Unlike the unity and the strength displayed by European nations – there is no evidence of any such unity of purpose in the event that China was to launch a conflict with Taiwan.

Challenges for India

- India cannot ignore the situation created by the stronger bonds between Russia and China.
- **Uncertainty about Russia:** India will need to determine whether **Russia** can be expected to play a role as a 'trusted friend' of India's.
- Again, it would be too much to hope that in dealing with China, India can expect the same kind of support it may need from the Quad.
- **China sidelining India:** China, however, seems intent on establishing its dominance and also sidelining India in Asia, which New Delhi would have discerned in the course of the virtual BRICS Summit hosted by China in June.
- **Afghanistan challenge:** Apart from China, India also urgently needs to come to terms with a Taliban Afghanistan.
- **Sri Lanka Challenge:** At this time, the democratic upsurge in Sri Lanka presents India with a fresh set of problems.
- In a situation where 'rage' and 'anger' are the dominant sentiments, there is every reason for concern that even governments that have maintained a 'hands-off' relationship could become targets of the new forces emerging in Sri Lanka.

Major developments in West Asia

- **The Abraham Accords in 2020**, which brought about the entente between the United Arab Emirates and Israel, has been the harbinger of certain new trends in the tangled web of relationships among countries of West Asia.
- But even as the U.S.'s relations with Arab nations in West Asia appear to weaken, **Russia and China are beginning to play key roles**, with Iran as the fulcrum for establishing new relationships.
- China continues to steadily build on its connections with the region, and with Iran in particular.
- **How India is dealing with the situation:** India has been making steady progress in enlarging its contacts and influence in West Asia.
- While the India-Israel relationship dates back to the 1990s, the India-UAE relationship has blossomed in the past couple of years.

- India-Iran relations, however, seem to have reached a stalemate of late.
- **Issues with I2U2:** India has joined a U.S.-based group, the I2U2, comprising India, Israel the UAE and the U.S.
- Details of the new arrangements are unclear, but it is evident that the **target is Iran**, as China is for the Quad, injecting **yet another element of uncertainty** into an already troubled region.

Conclusion

Geopolitical experts in the West confine their findings at present solely to the impact of the Russia-Ukraine conflict, believing that this alone would determine not only war and peace but also other critical aspects as well. Significant developments are also taking place in many other regions of the globe, which will have equal if not more relevance to the future of the international governance system.

26. Assessing Juvenility a 'Delicate Task': SC

The Supreme Court has given some guidelines for the delicate task of deciding whether juveniles aged between 16 and 18, accused of heinous offences such as murder can be tried like adults as per the JJ Act, 2005.

Juvenile Justice Act, 2015

- The JJ Act, 2015 replaced the Indian juvenile delinquency law, Juvenile Justice (Care and Protection of Children) Act, 2000.
- It allows for juveniles in conflict with Law in the age group of 16–18, involved in Heinous Offences, to be tried as adults.
- The Act also sought to create a universally accessible adoption law for India.
- The Act came into force from 15 January 2016.

Key features

- **Change in nomenclature** from 'juvenile' to 'child' or 'child in conflict with law', across the Act to remove the negative connotation associated with the word "juvenile"
- **Inclusion of several new definitions** such as orphaned, abandoned and surrendered children; and petty, serious and heinous offences committed by children;
- **Setting up Juvenile Justice Boards** and Child Welfare Committees in every district. Both must have at least one woman member each.
- **Special provisions for heinous offences committed by children above the age of 16 years:** This was in response to the juvenile convict in Nirbhaya Case.

- **Inclusion of new offences committed against children:** Sale and procurement of children for any purpose including illegal adoption, corporal punishment in child care institutions, use of child by militant groups, offences against disabled children and, kidnapping and abduction of children.
- **Penalties for cruelty against a child:** Offering a narcotic substance to a child, and abduction or selling a child has been prescribed.

What is the recent Supreme Court assessment?

- The “delicate task” of deciding whether juveniles aged between 16 and 18, accused of heinous offences such as murder, can be tried like adults should be based on **meticulous psychological investigation**.
- They **should not left to the discretion** and perfunctory “wisdom” of juvenile justice boards and children’s courts across the country, the Court held.

Way forward

- The court discovered that **there were neither guidelines nor a specific framework** in place for conduct of the preliminary assessment.
- The court left it open for the **Centre** and the **National Commission for Protection of Child Rights** to consider **issuing guidelines** or directions in this regard.
- It should further take the **assistance of experienced psychologists** or psychosocial workers.

27. Russia withdraws from Snake Island

Russian forces abandoned the strategic Black Sea outpost of Snake Island, in a major victory for Ukraine that could loosen the grip of Russia’s blockade on Ukrainian ports.

Snake Island

- Zmiinyi Island, also known as Snake or Serpent Island, is a small piece of rock less than 700 metres from end to end, that has been described as being “X-shaped”.
- It is located 35 km from the coast in the Black Sea, to the east of the mouth of the Danube and roughly southwest of the port city of Odessa.
- The island, which has been known since ancient times and is marked on the map by the tiny village of Bile that is located on it, belongs to Ukraine.

Why does Russia seek to control the Black Sea?

- Domination of the Black Sea region is a geostrategic imperative for Moscow.
- The famed water body is bound by Ukraine to the north and northwest, Russia and Georgia to the east, Turkey to the south, and Bulgaria and Romania to the west.
- It links to the Sea of Marmara through the Bosphorus and then to the Aegean through the Dardanelles.
- It has traditionally been Russia's warm water gateway to Europe.
- For Russia, the Black Sea is both a stepping stone to the Mediterranean as well as a strategic buffer between NATO and itself.
- Cutting Ukrainian access to the Black Sea will reduce it to a landlocked country and deal a crippling blow to its trade logistics.

28. Custodial deaths

The recent spate of custodial deaths in Tamil Nadu has yet again highlighted the methods used by the police during interrogation.

Custodial deaths in India

- It is not uncommon knowledge that the police, when they grow increasingly frustrated with the trajectory of their interrogation, sometimes resort to torture and violence which could lead to the death of the suspect.
- Custodial deaths are common despite enormous time and money being spent on training police personnel to embrace **scientific methods of investigation**.
- This is because police personnel are humans from different backgrounds and with different perspectives.

Use of technology by law enforcement agencies

- There is no doubt that technology can help avert police custodial deaths. For example, body cameras could hold officers liable.
- **Deception detection tests (DDTs)**, which deploy technologies such as polygraph, narco-analysis and brain mapping, could be valuable in learning information that is known only to a criminal regarding a crime.
- Among the DDTs, the Brain Fingerprinting System (BFS) is an innovative technology that several police forces contemplate adding to their investigative tools.
- The technique helps investigative agencies uncover clues in complicated cases.

- With informed consent, however, any information or material discovered during the BFS tests can be part of the evidence.
- Police departments are increasingly using robots for surveillance and bomb detection.
- Many departments now want robotic interrogators for interrogating suspects.
- **Use of robots:** Police departments are increasingly using robots for surveillance and bomb detection.
- **Use of robots for interrogation:** Many departments now want robotic interrogators for interrogating suspects.
- Many experts today believe that robots can meet or exceed the capabilities of the human interrogator, partially because humans are inclined to respond to robots in ways that they do to humans.
- Robots equipped with AI and sensor technology can build a rapport with the suspects, utilise persuasive techniques like flattery, shame and coercion, and strategically use body language.
- **Use of AI/ML:** Artificial Intelligence (AI) and Machine Learning (ML) are emerging as tool of interrogations. AI can detect human emotions and predict behaviour.
- Therefore, these are also options.
- ML can in real-time alert superiors when police are meting out inhumane treatment to suspects.

Issues with the use of technologies

- **Informed consent:** In 2010, the Supreme Court, in Selvi v. State of Karnataka, rendered the BFS evidence inadmissible.
- The court observed that the state could not perform narco analysis, polygraph, and brain-mapping tests on any individual without their consent.
- **High cost of technology:** As the BFS is high-end technology, it is expensive and unavailable in several States.
- There is a lot of concern about AI or robot interrogations, both legally and ethically.
- **Risk of bias:** There exists the **risk of bias**, the peril of automated interrogation tactics, the threat of ML algorithms targeting individuals and communities, and the hazard of its misuse for surveillance.

Way forward

- **Multi-pronged strategy:** What we need is the formulation of a multi-pronged strategy by the decision-makers encompassing legal enactments, technology, accountability, training and community relations.

- **Onus of proof on police:** The Law Commission of India's proposition in 2003 to change the Evidence Act to place the onus of proof on the police for not having tortured suspects is important in this regard.
- **Strict implementation of D.K. Basu case guidelines:** Besides, stringent action must be taken against personnel who breach the commandments issued by the apex court in D.K. Basu v. State of West Bengal (1997).
- **Law against custodial torture:** The draft bill on the Prevention of Torture, 2017, which has not seen the day, needs to be revived.

Conclusion

While the technology available to the police and law-enforcement agencies is constantly improving, it is a restricted tool that can't eradicate custodial deaths. While it might provide comfort and transparency, it can never address the underlying issues that lead to these situations.

29. Strains on India-Russia Defence Cooperation

As the war in Ukraine stretches over four months with no end in sight, it has given rise to apprehensions on Russia's ability to adhere to timely deliveries of spares and hardware to India.

History of the bilateral defence ties

- India was reliant, almost solely on the British, and other Western nations for its arms imports immediately after Independence.
- However, this dependence weaned, and by the 1970s India was importing several weapons systems from then USSR, making it the country's largest defence importer for decades.

A major chunk of India's strategic arms

- Russia has provided some of the most sensitive and important weapons platforms that India has required from time to time including nuclear submarines, aircraft carriers, tanks, guns, fighter jets, and missiles.
- According to one estimate, the share of Russian-origin weapons and platforms across Indian armed forces is as high as 85%.
- Russia is the second-largest arms exporter in the world, following only the United States.
- For Russia, India is the largest importer, and for India, Russia is the largest exporter when it comes to arms transfer.

What saw the decline?

- Between 2000 and 2020, Russia accounted for 66.5% of India's arms imports.
- Russia's share in Indian arms imports was down to about 50% between 2016 and 2020, but it still remained the largest single importer.

Present status of defence cooperation

- When the war began, Indian armed forces had stocks of spares and supplies for eight to ten months and the expectation was that the war would end quickly.
- However, as it stretches on with no clear endgame, there are apprehensions on Russia's ability to adhere to the timelines for both spares as well as new deliveries.
- Armed forces are looking at certain alternative mitigation measures and identifying alternate sources from friendly foreign countries.
- However, in the long term, this is also an opportunity for the private industry to step up production and meet the requirements.

Impact of the war

- While some timeline lapses and shipping delays were possible, there would not be any dent on the Army's **operational preparedness** along the borders.
- In addition, the armed forces have also made significant **emergency procurements** since the standoff in Eastern Ladakh and have stocked up on spares and ammunition.
- However, **Russia has assured** India that it would adhere to delivery timelines.
- Since the **war sees no end**, Russian industry would be caught up in **replenishing the inventories of their own armed forces**.

What is the status of payments?

- While India continues to remain Russia's largest arms buyer with a **major chunk of legacy hardware** from Russia and the Soviet Union, the volume of imports has reduced in the last decade.
- With Russia being shut out of the global SWIFT system for money transfers, India and Russia have agreed to conduct payments through the **Rupee-Rouble arrangement**.
- With several big ticket deals including the S-400 under implementation, there are **large volume of payments to be made**.

30. Private Member's Bill

Opposition members protested against the introduction of a private member's Bill on the repeal of The Places of Worship (Special Provisions) Act, 1991, in the Rajya Sabha.

- A private member's Bill is different from a government Bill and is piloted by an MP who is not a minister. An MP who is not a minister is a private member.
- Individual MPs may introduce private member's Bill to draw the government's attention to what they might see as issues requiring legislative intervention.

Difference between private and government Bills

- While both private members and ministers take part in the lawmaking process, Bills introduced by private members are referred to as private member's Bills and those introduced by ministers are called government Bills.
- Government Bills are backed by the government and also reflect its legislative agenda.
- The admissibility of a Private Bill is decided by the Chairman in the case of the Rajya Sabha and the Speaker in the case of the Lok Sabha.
- Before the Bill can be listed for introduction, the Member must give at least a month's notice, for the House Secretariat to examine it for compliance with constitutional provisions and rules on legislation.
- While a government Bill can be introduced and discussed on any day, a private member's bill can only be introduced and discussed on Fridays.

Has a private member's bill ever become a law?

- No private member's Bill has been passed by Parliament since 1970.
- To date, Parliament has passed 14 such Bills, six of them in 1956.
- In the 14th Lok Sabha, of the over 300 private member's Bills introduced, roughly four per cent were discussed, the remaining 96 per cent lapsed without a single dialogue.
- The selection of Bills for discussion is done through a ballot.

31. Helping out Sri Lanka

In news

India, which held an all-party meeting on the crisis in Sri Lanka, promised to support Sri Lanka that is struggling to deal with the devastation caused by the economic crisis.

The Government of India said that “fiscal prudence and responsible governance” are the lessons to be learnt from the situation in Sri Lanka and that there should not be a “culture of freebies”.

What are the reasons for the Sri Lankan crisis?

- At the end of the civil war [with the Liberation Tigers of Tamil Eelam] in 2009, Sri Lanka had to go to the International Monetary Fund (IMF) for support.
- Over the years, there has been **economic mismanagement** (fiscal and budgetary) and **political malfeasance** caused by the successive Sri Lankan government.
- The crisis is a consequence of the **twin deficit problem** - an unsustainable current account deficit and an unsustainable fiscal deficit.
- **Tourism collapsed** starting with the Easter bombings, then the pandemic.
- Again because of the pandemic, **remittances from migrant workers declined**.
- The import bill rose because of the **war on Ukraine** and the **spike in oil prices**.
- On the domestic front, however, the fiscal crisis is completely home-made by the Rajapaksa government. It was responsible for three specific things,
 1. Unaffordable populism by cutting taxes,
 2. Erratic economic management - for example, the abrupt shift to organic farming; and
 3. It did not go to the IMF early enough.
- The big tax holiday that Mr. Gotabaya Rajapaksa gave, soon after he assumed office, had precipitated the crisis.

What did India do to help?

- Sri Lanka came to India at the end of the year 2021, asking India to reschedule the debt repayment.
- Recently, India’s assistance to Sri Lanka was about \$3.8 billion. India could not have restructured all its loans or given all the money that Sri Lanka wanted.
- India gave aid on time and in sufficient quantity for Sri Lanka to get some breathing space in order to approach the IMF and reach an arrangement with the IMF.

- India's help has been unprecedented - other countries have come up with very small amounts of humanitarian assistance at the very most.
- The Indian Government by itself cannot solve Sri Lanka's problem. Sri Lanka needs everybody who it owes debt to - the IMF, the World Bank, the Asian Development Bank and all other partners - to come together and give it some breathing space.

To what extent is the situation in Sri Lanka comparable to that in Indian States?

- Some Indian States are borrowing money and using it on freebies, which do not add to productivity or future economic activity or production capacity.
- But they add to current consumption. So, they do not support long-term growth.
- But, Indian States can't be compared to Sri Lanka as Sri Lanka is an independent economic entity whereas the Indian States are part of a national economic entity.
- States in India do not have their own balance of payments, they do not have debt denominated in external currency like Sri Lanka. ★
- Sri Lanka can deal with domestic debt by printing currency, as it did, but States in India cannot do that.

The Supreme Court has said there must be some norms about how much can be spent on freebies.

32. Russia, Ukraine seal grain exports deal

Kyiv and Moscow penned a landmark agreement with Turkey and the UN to unblock Ukraine's Black Sea grain exports after a Russian blockade raised fears of a global food crisis.

Deal about

- The deal was agreed through UN and Turkish mediation.
- It establishes safe corridors along which Ukrainian ships can come in and out of three designated Black Sea ports in and around Odessa.
- Both sides also pledged not to attack ships on the way in or out.

Why was the grain export deal signed?

- Ukraine is one of the world's largest exporters of wheat, corn and sunflower oil, but Russia's invasion of the country and naval blockade of its ports have halted shipments.
- Some grain is being transported through Europe by rail, road and river, but the prices of vital commodities like wheat and barley have soared during the nearly five-month war.
- Ukrainian and Russian military delegations reached a tentative agreement last week on a UN plan that would also allow Russia to export its grain and fertilizers.
- Ukraine is expected to export 22 million tons of grain and other agricultural products that have been stuck in Black Sea ports due to the war.

What is the grain export deal?

- The deal makes provisions for the safe passage of ships.
- It foresees the establishment of a control center in Istanbul, to be staffed by UN, Turkish, Russian and Ukrainian officials, to run and coordinate the process.
- Ships would undergo inspections to ensure they are not carrying weapons.
- Ukraine has insisted that no Russian ship would escort vessels and that there would be no Russian representative present at Ukrainian ports.
- Ukraine also plans an immediate military response in case of provocations.

33. Centre gets time to reply on Fundamental Duties

The Supreme Court has allowed the Centre's request for two months' time to file a reply to a petition seeking the enforcement of fundamental duties of citizens, including patriotism and unity of nation, through "comprehensive, and well-defined laws".

In news

- The **need to enforce fundamental duties** arises due to new **illegal trend of protest** by protesters in the garb of freedom of speech and expression.
- **Vandalism, blocking of road and rail** routes in order to compel the government to meet their demands is a sheer violation of the FDs which are generally not enforceable.

Fundamental Duties

- The fundamental duties of citizens were added to the constitution by the **42nd Amendment in 1976**, upon the recommendations of the **Swaran Singh Committee**.
- It basically imply the moral obligations of all citizens of a country and today, there are 11 fundamental duties in India, which are written in Part IV-A of the Constitution, to promote patriotism and strengthen the unity of India.
- They also obligate all Indians to promote the spirit of common brotherhood, protect the environment and public property, develop scientific temper, abjure violence, and strive towards excellence in all spheres of life.

Judicial interpretation of FDs

- The Supreme Court has held that FDs are not enforceable in any Court of Law.
- It ruled that these fundamental duties can also help the court to decide the constitutionality of a law passed by the legislature.
- There is a reference to such duties in international instruments such as the Universal Declaration of Human Rights and International Covenant on Civil and Political Rights, and Article 51A brings the Indian constitution into conformity with these treaties.

The 11th fundamental duty which was added to this list is:

1. To provide opportunities for education to children between 6-14 years of age, and duty as parents to ensure that such opportunities are being awarded to their child. (86th Amendment, 2002)

34. Kerala reports India's first Monkeypox Case

The first known lab-confirmed case of monkeypox in India has been reported in a 35-year-old man in Kerala.

Monkeypox

- The monkeypox virus is an orthopoxvirus, which is a genus of viruses that also includes the variola virus, which causes smallpox, and vaccinia virus, which was used in the smallpox vaccine.
- It causes symptoms similar to smallpox, although they are less severe.

- While vaccination eradicated smallpox worldwide in 1980, monkeypox continues to occur in a swathe of countries in Central and West Africa, and has on occasion showed up elsewhere.
- According to the WHO, two distinct clade are identified: the West African clade and the Congo Basin clade, also known as the Central African clade.

Its origin

- Monkeypox is a zoonosis, that is, a disease that is transmitted from infected animals to humans.
- Monkeypox virus infection has been detected in squirrels, Gambian poached rats, dormice, and some species of monkeys.
- According to the WHO, cases occur close to tropical rainforests inhabited by animals that carry the virus.

Symptoms and treatment

- Monkeypox begins with a fever, headache, muscle aches, back ache, and exhaustion.
- It also causes the lymph nodes to swell (lymphadenopathy), which smallpox does not.
- The WHO underlines that it is important to not confuse monkeypox with chickenpox, measles, bacterial skin infections, scabies, syphilis and medication-associated allergies.
- The incubation period (time from infection to symptoms) for monkeypox is usually 7-14 days but can range from 5-21 days.
- There is no safe, proven treatment for monkeypox yet.

35. The Draft National Policy on Disability

The Social Justice and Empowerment Ministry has invited public feedback on the new draft national policy on persons with disabilities (PwD).

Status of PwD in India

- The 2011 Census puts the number of persons with disabilities at 2.68 crores implying **2.21%** of Indian population has some form of disability, as compared to global average of **15%**.
- As per Census, 2011, literacy rate of the total PwD population is about 55% (male - 62%, female -45%).
- As regards higher education, only about 5% of PwD are graduate and above.

- Census data of 2011 further shows that about 36% of the total PwD are employed (male -47%, female-23%).

Efforts were taken for PwD

Relief to persons with disabilities is a state subject by virtue of entry 9 of List II of the Constitution.

- The **Persons with Disabilities (Equal Opportunities, Protection of Rights and Full Participation) Act, 1995** was enacted for creating an inclusive environment for PwD which recognized 7 categories of disabilities.
- In 2007, India became a party to the **United Nations Convention on the Rights of Persons with Disabilities (UNCRPD)**.
- India is a party to the '**Incheon Strategy for Asia Pacific Decade for PwD: 2013-2022**' prepared under the aegis of UNESCAP which identifies 10 goals for the Asia-Pacific countries to ensure inclusion and empowerment of PwD.
- The Department of Empowerment of Persons with Disabilities started implementing the **Unique Disability ID (UDID)** project for creating a national database for persons with disabilities.

Challenges faced by PwDs regarding political inclusion?

- **Political empowerment-** The Convention on Rights of Persons with Disabilities, Incheon goals, etc. promote the participation of PwDs in political processes and in decision making.
- **No data-** The lack of live aggregate data on the exact number of the disabled people in every constituency only furthers their marginalisation.
- **Inadequate representation-** Disabled people are not represented enough at all three levels of governance.
- The first visually disabled Member of Parliament in independent India, **Sadhan Gupta**, hardly finds mention in our political or disability discourse.
- However, few States have begun the initiative at local levels to increase participation.
 - For instance, Chhattisgarh started the initiative of nominating at least one disabled person in each panchayat.

Need of the hour

- To achieve political inclusion, the policy can follow a four-pronged approach.
 - Building the capacity of disabled people's organisations and empowering their members through training in the electoral system and government structure

- Framework for political parties to conduct a meaningful outreach to PwDs when creating election campaign strategies and developing policy positions
- Political rights/ political participation will only conform to the universal principle on disability, i.e., **“Nothing about us. Without us.”**

36. Functioning of the National Investigation Agency (NIA)

The National Investigation Agency (NIA) has taken over the probe into the terrible beheading of a person in Udaipur by Jihadi radicalists.

What is the NIA?

- Headquartered in Delhi, the NIA has its branches in Hyderabad, Guwahati, Kochi, Lucknow, Mumbai, Kolkata, Raipur, Jammu, Chandigarh, Ranchi, Chennai, Imphal, Bengaluru and Patna.
- It is a central agency mandated to investigate all the offences affecting:
 1. Sovereignty, security and integrity of India
 2. Friendly relations with foreign states
 3. Offences under the statutory laws enacted to implement international treaties, agreements, conventions and resolutions of the United Nations, its agencies and other international organisations
- The offense include terror acts and their possible links with crimes like smuggling of arms, drugs and fake Indian currency and infiltration from across the borders.
- The agency has the power to search, seize, arrest and prosecute those involved in such offences.

When did the NIA come into being?

- In the wake of the **26/11 Mumbai terror attack** in November 2008, which shocked the entire world, the then United Progressive Alliance government decided to establish the NIA.
- In December 2008, former Union Home Minister P. Chidambaram introduced the National Investigation Agency Bill.
- The agency would deal with only eight laws mentioned in the schedule and that a balance had been struck between the right of the State and duties of the Central government to investigate the more important cases.

- The agency **came into existence on December 31, 2008**, and started its functioning in 2009.
- Till date, the NIA has registered 447 cases.

What are the scheduled offences?

The list includes the

1. Explosive Substances Act,
 2. Atomic Energy Act,
 3. Unlawful Activities (Prevention) Act,
 4. Anti-Hijacking Act,
 5. Suppression of Unlawful Acts against Safety of Civil Aviation Act,
 6. SAARC Convention (Suppression of Terrorism) Act,
 7. Suppression of Unlawful Acts Against Safety of Maritime Navigation and Fixed Platforms on Continental Shelf Act,
 8. Weapons of Mass Destruction and their Delivery Systems (Prohibition of Unlawful Activities) Act and
 9. Relevant offences under the Indian Penal Code, Arms Act and
 10. Information Technology Act
- In September 2020, the Centre empowered the NIA to also probe offences under the Narcotic Drugs and Psychotropic Substances Act that are connected to terror cases.

How wide is NIA's jurisdiction?

- The law under which the agency operates extends to the whole of India.
- It also applies to:
 1. Indian citizens outside the country;
 2. Persons in the service of the government wherever they are posted;
 3. Persons on ships and aircraft registered in India wherever they may be;
 4. Persons who commit a scheduled offence beyond India against the Indian citizen or affecting the interest of India.

How does the NIA take up a probe?

- As provided under Section 6 of the Act, **State governments can refer the cases** pertaining to the scheduled offences registered at any police station to the Central government (Union Home Ministry) for NIA investigation.
- After assessing the details made available, the Centre can then direct the agency to take over the case.
- State governments are required to extend all assistance to the NIA.

- Even when the **Central government is of the opinion that a scheduled offence has been committed** which is required to be investigated under the Act, it may, **suo motu, direct the agency to take up/over the probe.**

37. Malnutrition in India

More than seven decades after independence, India still suffers from the public health issues such as child malnutrition attributing to 68.2% of under-five child mortality.

What is malnutrition?

- Malnutrition refers to **deficiencies**, excesses or imbalances in a person's intake of energy and/or nutrients.
- The term malnutrition covers **2 broad groups of conditions.**
- One is '**undernutrition**' – which includes stunting (low height for age), wasting (low weight for height), underweight (low weight for age) and **micronutrient deficiencies** or insufficiencies (a lack of important vitamins and minerals).
- The other is overweight, obesity and diet-related non-communicable diseases (such as heart disease, stroke, diabetes, and cancer).

Marginal improvement on Stunting and Wasting

- The **National Family Health Survey (NFHS-5)** has shown marginal improvement in different nutrition indicators, indicating that the pace of progress is slow.
- This is despite **declining rates of poverty**, increased self-sufficiency in **food production**, and the implementation of a **range of government programmes.**
- Children in several States are **more undernourished now** than they were five years ago.
- **Increased stunting in some states:** Stunting is defined as low height-for-age.
- While there was some reduction in **stunting rates** (35.5% from 38.4% in NFHS-4) 13 States or Union Territories have seen an increase in stunted children since NFHS-4.
- This includes Gujarat, Maharashtra, West Bengal and Kerala.
- **Wasting remains stagnant:** Wasting is defined as low weight-for-height.
- Malnutrition trends across NFHS surveys show that wasting, the most visible and life-threatening form of malnutrition, has either risen or **has remained stagnant over the years.**

National Nutrition Mission (NNM): Focus on essential nutrition interventions

- Government appears determined to set it right – with an aggressive push to the National Nutrition Mission (NNM), rebranding it the Prime Minister’s Overarching Scheme for Holistic Nutrition, or POSHAN.
- **Window of opportunity:** The Ministry of Women and Child (MWCD) continues to be the **nodal Ministry** implementing the NNM with a vision to align different ministries to work in tandem on the “window of opportunity” of **the first 1,000 days in life (270 days of pregnancy and 730 days; 0-24 months)**.
- POSHAN Abhiyaan (now referred as POSHAN 2.0) rightly places a special emphasis on selected high impact **essential nutrition interventions**, combined with **nutrition-sensitive interventions**, which indirectly impact mother, infant and young child nutrition, such as improving coverage of maternal-child health services, enhancing women empowerment, availability, and access to **improved water, sanitation, and hygiene** and enhancing homestead food production for a diversified diet.

Key findings of NHFS-5 data

- Data from the National Family Health Survey (NFHS)-5 2019-21, as compared to NFHS-4 2015-16, reveals a substantial improvement in a period of four to five years in several proxy indicators of women’s empowerment.
- **No progress on nutritional intervention:** Alarming, during this period, the country has not progressed well in terms of direct nutrition interventions.
- Preconception nutrition, maternal nutrition, and appropriate infant and child feeding remain to be effectively addressed.
- India has 20% to 30% undernutrition even in the first six months of life when exclusive breastfeeding is the only nourishment required.
- Neither maternal nutrition care interventions nor infant and young child feeding practices have shown the desired improvement.

Suggestions

- Child undernutrition in the first three months remains high. Creating awareness on EBF, promoting the technique of appropriate holding, latching and manually emptying the breast are crucial for the optimal transfer of breast milk to a baby.
- **Complementary feeding:** NFHS-5 also confirms a gap in another nutrition intervention – complementary feeding practices, i.e., complementing semi-solid feeding with continuation of breast milk from six months onwards.

- The fact that 20% of children in higher socio- economic groups are also stunted indicates poor knowledge in food selection and feeding practices and a child's ability to swallow mashed feed.
- **Creating awareness:** So, creating awareness at the right time with the right tools and techniques regarding special care in the first 1,000 days deserves very high priority.
- **Revisit nodal system for nutrition program:** There is a need to revisit the nodal system for nutrition programme existing since 1975, the Integrated Child Development Scheme (ICDS) under the Ministry of Women and Child and examine whether it is the right system for reaching mother-child in the first 1000 days of life.
- **Alternative way to distribute ICDS supplies:** There is also a need to explore whether there is an alternative way to distribute the ICDS supplied supplementary nutrition as Take- Home Ration packets through the Public Distribution (PDS) and free the anganwadi workers of the ICDS to undertake timely counselling on appropriate maternal and child feeding practices.

Conclusion

It is time to think out of the box, and overcome systemic flaws and our dependence on the antiquated system of the 1970s that is slowing down the processes.

38. No inner-party democracy

The ousting of Boris Johnson as leader of the British Conservative Party is the latest in a series of coups periodically mounted by the party's MPs. What is instructive about this whole process, however, is how much power ordinary MPs have over the Prime Minister.

Lack of inner-party democracy in India

- A Prime Minister in UK has to be able to maintain the confidence of his own backbencher MPs at all times or risk political oblivion.
- If there is a sense that the leader is no longer acceptable to the country, then a well-oiled machine springs into action to protect the party's electoral gains by providing fresh leadership.
- **Lack of autonomy:** In effect, MPs do not enjoy any autonomy at all to question and challenge their party leadership.
- Prime Ministers or Chief Ministers at the State level are chosen by party high command, and then submitted to MPs/MLAs to be rubber stamped.

Way forward

- **Strengthening local constituency party:** It is time for India to seriously consider empowering its elected representatives, to ensure accountability for party leadership.
- MPs in the U.K. are able to act boldly because they do not owe their nomination to the party leader, but are selected by the local constituency party.
- In India, however, it is the party leadership that decides candidates, with an informal consultation with the local party.
- If a numerical or percentage threshold (15% of the party's MPs in the U.K.) is breached, an automatic leadership vote is triggered, with the party leader forced to seek a fresh mandate from the parliamentary party.
- Of course, the only way such a model would work is if an **exception is made to the anti-defection law.**

Conclusion

Inner-party democracy is a essential for keeping the spirit of democracy alive. Westminster model dictates that control over candidates must shift from central party leaders to local party members.

39. Tele-Law service is being made free of cost for citizens from this year- Minister of Law and Justice

- From this year, **Tele-Law service is being made free of cost for citizens in the country,"** Minister of Law and Justice at the 18th All India Legal Services Meet at Jaipur.
- During last year a total of **21,148 meetings of the Under Trial Review Committee(UTRCs)** were held resulting in the release of **31,605 undertrial inmates.**

Key Highlights:

- **Legal aid to marginalized:** Tele-Law mainstreams legal aid to the marginalized seeking legal help by connecting them with the Panel Lawyers through the **tele/video-conferencing infrastructure available at Common Service Centers (CSCs) across 1 lakh Gram Panchayats.**
- **Tele Law application:** For easy and direct access Tele- Law Mobile Application (both Android and iOS) has also been launched in 2021 and it is presently available in **22 scheduled languages.**

- **Widening of service to beneficiaries:** Benefitting from this digital revolution, Tele-Law has widened the outreach of legal services to **20 Lakh + beneficiaries in just five years.**
- **NALSA to provide lawyers:** Under the provision of the MoU, NALSA would provide the services of 700 lawyers, in each district exclusively for the Tele-Law program.
 - These empanelled lawyers would now also act as referral lawyers and also assist in strengthening the mechanism for dispute avoidance and dispute resolution at the pre-litigation stage.

40. Pakistan and IMF talks: What lies ahead?

The latest IMF press release maintains it would consider an extension of the current Extended Fund Facility (EFF) to end June 2023 and augment the fund amount to \$7 billion for Pakistan.

Pakistan seeks IMF bailout

- Surprisingly, it took five months to reach the staff-level agreement.
- The total disbursement under the current EFF to Pakistan has now been \$4.2 billion.
- The talks were originally aimed at releasing a tranche of \$900 million.

What is Extended Fund Facility (EFF)?

- The EFF was established by the IMF to provide assistance to countries experiencing serious payment imbalances because of structural impediments or slow growth and an inherently weak balance-of-payments position.
- An EFF provides support for comprehensive programs including the policies needed to correct structural imbalances over an extended period.

What was the Pakistani EFF?

- The 39-month EFF between the two was signed in July 2019 to provide funds amounting to Self-Drawing Rights (SDR) – \$4,268 million.
- The EFF was signed by Pakistan to address the medium-term balance of payment problem, and work on structural impediments and increase per capita income.

Why did the talks take longer to conclude?

- The IMF placed demands (all of which seem impossible for Pakistan) includes :

1. Fiscal consolidation to reduce debt and build resilience
 2. Market-determined exchange rate to restore competitiveness
 3. Eliminate 'quasi-fiscal' losses in the energy sector and
 4. Strengthened institutions with transparency
- Ousted Pakistani PM eased fuel prices. This was considered a major deviation under the EFF benchmarks.
 - Then govt gave tax amnesties to the industrial sector, impacted the tax regime and a structural benchmark for fiscal consolidation.
 - The IMF insisted on its demands before approving any release of the tranche.

Risks posed by a failed Pakistan

- There is also a narrative that Pakistan has the fifth largest population with nuclear weapons that cannot be allowed to fail.
- A section within Pakistan also places the geo-strategic location of the country would provide an edge for cooperation, rather than coercion.
- Hence, this section believes, the IMF would continue to support.
- Given the IMF's increased assertion, Pakistan's political calculations and the elections ahead, the relationship between the two is likely to remain complicated.

What lies ahead for Pakistan and the IMF?

- Despite the latest agreement, the road ahead for the IMF and Pakistan is not an easy one.
- Political calculations and the elections ahead will play a role in Pakistan's economic decision-making.
- However, one thing is eminent Pakistan will certainly collapse someday badly like Sri Lanka.

GS 3 : Economy, Science and Technology, Environment

1. Impact of GST on inflation

The monumental indirect tax reform, the Goods and Services Tax (GST), has completed five years in existence. The article analyses the impact of GST on inflation.

Background

- Before the implementation, it was said that it would be a boon to the economy in terms of higher revenue buoyancy, lower inflation, higher revenue, higher growth etc.
- During the 12 months preceding GST implementation, the Consumer Price Index (CPI) inflation was 3.66%, while it increased to 4.24% post-GST in the next 12 months.
- A similar pattern was observed in Australia, New Zealand, and Canada.
- An Australian Competition and Consumer Commission study showed that **GST initially increases inflation.**

How GST can affect prices

- In theory, implementing GST should not lead to a change in overall inflation.
- The **revenue-neutral rate (RNR)** is calculated so that it would not cause higher inflation.
- But revenue neutrality does not mean that prices would not go up or down in the economy.
- This is because the **weight of goods in the consumption basket and their contributions to indirect tax collections** are not the same.
- Importantly, the effect of GST on the prices of certain goods and services depends on the structure and design of taxation.
- The RBI, in a 2017 report, showed that about half of the groups of items that GST covers are not in the CPI basket.
- So, the effect of GST on prices was expected to be small.
- Finally, prior to the GST implementation, it was expected that prices would go down because GST harmonises indirect tax rates and **eliminates the cascading effect.**
- Thus, whether GST has any effect depends on how different factors affect each other.

What explains rise in inflation post GST?

- **Rise in tax rate of some goods:** The rise in inflation post-GST implementation could be due to the rise in the tax rate of some goods and services, the inclusion of business activities that were not taxed earlier, or the market structure.
- The average weighted GST rate was designed to be neutral, so it might not have contributed much to the observed higher inflation.
- Coverage of business activities under GST not taxed earlier would result in higher prices since the firms would pass on the cost to the consumers.
- **Market power:** There is another possibility which would cause result inflation after the GST implementation.
- As Joseph Stiglitz opined, rising market power is bad for the economy as it raises economic inefficiency and inequality and lowers the economy's resiliency.
- To pre-empt this possibility, the government set up **National Anti-profiteering Authority (NAA)**.

Way forward

- NAA should monitor the prices of critical or essential goods and services to see the price impact of GST.
- Similarly, the Competition Commission of India should observe **anti-competitive producer behaviour** that hurts consumers via excessive price increases.
- These measures may ensure that producers do not take advantage of the GST.

Conclusion

Statistical results suggest that GST implementation has resulted in a decrease in inflation of food items and raised inflation of non-food items.

2. UAPA necessary to act against terrorists: Minister

A Union Minister has said it was necessary to have certain laws like the Unlawful Activities Prevention Act (UAPA) so that action could be taken against terrorists and those who "behead other people".

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.

3. What is PSLV Orbital Experimental Module (POEM)

The ISRO has launched three Singaporean satellites in precise orbit through the PSLV Orbital Experimental Module or ‘POEM’.

What is POEM?

- The POEM is a platform that will help perform in-orbit experiments using the final, and otherwise discarded, stage of ISRO's workhorse rocket, the Polar Satellite Launch Vehicle (PSLV).
- The PSLV is a four-stage rocket where the first three spent stages fall back into the ocean, and the final stage (PS4) – after launching the satellite into orbit – ends up as space junk.
- However, in PSLV-C53 mission, the spent final stage will be utilised as a “stabilised platform” to perform experiments.
- POEM is carrying six payloads, including two from Indian space start-ups Digantara and Dhruva Space.

Features of POEM

- POEM has a dedicated Navigation Guidance and Control (NGC) system for attitude stabilisation, which stands for controlling the orientation of any aerospace vehicle within permitted limits.
- The NGC will act as the platform's brain to stabilize it with specified accuracy.
- POEM will derive its power from solar panels mounted around the PS4 tank, and a Li-Ion battery.
- It will navigate using four sun sensors, a magnetometer, gyros & NavIC.
- It carries dedicated control thrusters using Helium gas storage. It is enabled with a telecomm and feature.

Has ISRO repurposed and used PS4 rocket junk earlier?

- The Indian space agency first demonstrated the capability of using PSLV-C44 as an orbital platform in 2019.
- It injected Microsat-R and Kalamsat-V2 satellites into their designated orbits.
- The fourth stage in that mission was kept alive as an orbital platform for space-based experiments.
- While in that mission, the fourth stage had Li-Ion batteries, solar panels are an addition this time.
- The latest repurposing and upgrade of the fourth stage of the PSLV rocket involves the stabilization of the orbital platform.

4. How the RBI unconventionally innovated policy to fight the pandemic

Recently, the RBI has been at the receiving end for missing the inflation target.

Understanding the RBI's rationale

- **Supply side shock:** Inflation has been largely the result of supply side shocks from vegetable prices, caused by crop damages due to unseasonal rains (tomato, onion and potato) in late 2019 and widespread supply-side disruptions after the outbreak of the pandemic.
- A narrow-minded focus on inflation caused by supply shocks would have constrained the MPC from supporting growth amidst the unprecedented loss of life and livelihood.
- **Focusing on recovery:** Therefore, it was necessary to provide a lifeline to the economy at that juncture by focusing on the recovery.
- Moreover, the wide tolerance band of 200bps +/- in the inflation targeting framework was specifically designed to accommodate such supply shocks, which provided the flexibility **in the flexible targeting (FIT) framework**.
- **Taking into account objective of growth:** In contrast to a **pure inflation targeting framework** (inflation nutters), the amended mandate of the RBI under FIT reads as “price stability, taking into account the objective of growth”.
- Therefore, the MPC was justified in looking through the higher inflation print during the pandemic while trying to resurrect growth.

No contradiction between Governor's statement and MPC resolution

- Recently, the MPC highlighted inflation concerns and voted to raise the policy repo rate.
- The governor's statement of the same day noted that the RBI will ensure an **orderly completion of the government's borrowing programme**.
- **Contradictory objectives:** It is said that the above two actions created confusion as lowering inflation and lowering government bond yields are contradictory objectives.
- This justification is redundant as an orderly completion of the borrowing programme **does not imply lowering yields**.
- It basically ensures that the borrowing programme is **completed seamlessly at low costs (ensured through auctions)**.
- Moreover, from a theoretical perspective, this is not inconsistent because **controlling inflation and lowering inflation expectations bodes well for the term premia of bond yields** – which moderate once expectations are anchored.
- Therefore, if inflation is reined in, the government stands to gain in terms of lower interest costs.
- **Was width of corridor lost during pandemic?** It is argued that the MPC kept repo rates unchanged while the RBI **changed the reverse repo rate during the**

pandemic, meaning that the fixed **width of the corridor was lost** and the MPC lost its role in setting interest rates and so, its credibility.

- This argument does not stand scrutiny.
- During the pandemic, the policy repo rate was cumulatively **reduced by an unprecedented 115 bps** and the interest rate on the overnight fixed-rate reverse repo was reduced cumulatively by 155 bps.
- **Assymmetric corridor justified in crises:** This measure was not incongruous with contemporary wisdom as an asymmetric corridor has been justified, particularly during crisis times (Goodhart, 2010).
- Given that elevated inflation concerns precluded the possibility of any further repo rate cuts (cumulatively reduced by 250 basis points since February 2019), financial conditions were eased substantially by **reducing the reverse repo rate**, which lowered the floor rate of interest in the economy.
- Since the mandate of the MPC is to control inflation for which the policy instrument is the repo rate, the RBI had used the LAF through changes in the reverse repo rate to alter liquidity conditions.

Trade offs involved in inflation targeting for emerging economies

- Inflation-targeting countries, because of their sole focus on inflation, experience lower inflation volatility but higher output volatility.
- Higher output volatility entails a higher sacrifice ratio – the proportion of **output foregone for lowering inflation**.
- For an emerging economy, the costs of higher output foregone against the benefits of lower inflation must always be balanced as potential output keeps on changing given the shift of the production function.
- Developed countries, on the other hand, **operate near full employment** – therefore, sacrifice ratios are lower.
- As a result, smoothening inflation volatility is relatively **costless for them**.

Conclusion

The RBI has innovated admirably under its current stewards during the pandemic, keeping in mind the task of reinvigorating the economy. Despite the existing targeting framework, it did not get fixated on a one-point agenda, daring to look beyond the inflation print.

5. What are G-Sec Yields?

Government Securities (G-Secs) yields are at an all-time high.

What are G-Secs?

- These are debt instruments issued by the government to borrow money.
- The two key categories are:
 1. Treasury bills (T-Bills) – short-term instruments which mature in 91 days, 182 days, or 364 days, and
 2. Dated securities – long-term instruments, which mature anywhere between 5 years and 40 years

Note: T-Bills are issued only by the central government, and the interest on them is determined by market forces.

Why G-Secs?

- Like bank fixed deposits, g-secs are not tax-free.
- They are generally considered the safest form of investment because they are backed by the government. So, the risk of default is almost nil.
- However, they are not completely risk-free, since they are subject to fluctuations in interest rates.
- Bank fixed deposits, on the other hand, are guaranteed only to the extent of Rs 5 lakh by the Deposit Insurance and Credit Guarantee Corporation (DICGC).

How are G-sec yields calculated?

- G-sec yields change over time; often several times during a single day.
- This happens because of the manner in which G-secs are structured.
- Every G-sec has a face value, a coupon payment and price.
- The price of the bond may or may not be equal to the face value of the bond.
- Here's an example: Suppose the government floats a 10-year G-sec with a face value of Rs 100 and a coupon payment of Rs 5.
- If one were to buy this single G-sec from the government, it would mean that one will give Rs 100 to the government today and the government will promise to 1) return the sum of Rs 100 at the end of tenure (10 years), and 2) pay Rs 5 each year until the end of this tenure.
- At this point, the face value of this G-sec is equal to its price, and its yield (or the effective interest rate) is 5%.

How do G-sec yields go up and down?

- Imagine a scenario in which the government floats just one G-sec, and two people want to buy it.

- Competitive bidding will ensue, and the price of the bond may rise from Rs 100 (its face value) to Rs 105.
- Now imagine another lender in the picture, which pushes the price further up to Rs 110.

What do G-sec yields show?

- If G-sec yields (say for a 10-year bond) are going up, it would imply that lenders are demanding even more from private sector firms or individuals; that's because anyone else is riskier when compared to the government.
- It is also known that when it comes to lending, interest rates rise with the rise in risk profile.
- As such, if G-sec yields start going up, it means lending to the government is becoming riskier.
- If you read that the G-sec yields are going up, it suggests that the bond prices are falling. But the prices are falling because fewer people want to lend to the government.
- And that in turn happens when people are worried about the government's finances (or its ability to pay back).
- The government's finances may be in trouble because the economy is faltering and it is unlikely that the government will meet its expenses.
- By the reverse logic, if a government's finances are sorted, more and more people want to lend money to such a G-sec.
- This in turn, leads to bond prices going up and yields coming down.

6. GST revenues surpass ₹1.44 lakh crore

India recorded its second-highest monthly gross GST revenues in June at ₹1,44,616 crore, 56% more than a year earlier when the second COVID wave had hit economic activity.

What is GST?

- GST is an indirect tax that has replaced many indirect taxes in India such as excise duty, VAT, services tax, etc.
- The Goods and Service Tax Act was passed in Parliament on 29th March 2017 and came into effect on 1st July 2017. It is a single domestic indirect tax law for the entire country.
- It is a comprehensive, multi-stage, destination-based tax that is levied on every value addition.

- Under the GST regime, the tax is levied at every point of sale. In the case of intra-state sales, Central GST and State GST are charged. All the inter-state sales are chargeable to the Integrated GST.

What are the components of GST?

There are three taxes applicable under this system:

1. CGST: It is the tax collected by the Central Government on an intra-state sale (e.g., a transaction happening within Maharashtra)
2. SGST: It is the tax collected by the state government on an intra-state sale (e.g., a transaction happening within Maharashtra)
3. IGST: It is a tax collected by the Central Government for an inter-state sale (e.g., Maharashtra to Tamil Nadu)

Advantages Of GST

- GST has mainly removed the cascading effect on the sale of goods and services.
- Removal of the cascading effect has impacted the cost of goods.
- Since the GST regime eliminates the tax on tax, the cost of goods decreases.
- Also, GST is mainly technologically driven.
- All the activities like registration, return filing, application for refund and response to notice needs to be done online on the GST portal, which accelerates the processes.

Issues with GST

- High operational cost
- GST has given rise to complexity for many business owners across the nation.
- GST has received criticism for being called a 'Disability Tax' as it now taxes articles such as braille paper, wheelchairs, hearing aid etc.
- Petrol is not under GST, which goes against the ideals of the unification of commodities.

7. Researchers found gene regulating Nitrogen absorption in Plant

Researchers led by those from the National Centre of Biological Sciences, Tata Institute of Fundamental Research, Bengaluru (NCBS-TIFR), have found a new pathway that regulates nitrate absorption in plants.

Nitrogen in plant nutrition

- Nitrogen is one of the most important macronutrients needed for development of a plant.
- It is a part of chlorophyll, amino acids and nucleic acids, among others.
- It is mostly sourced from the soil where it is mainly absorbed in the form of nitrates and ammonium by the roots.
- Nitrates also play a role in controlling genome-wide gene expression that in turn regulates root system architecture, flowering time, leaf development, etc.
- Thus, while a lot of action takes place in the roots to absorb and convert nitrogen into useful nitrates, the absorbed nitrates in turn regulate plant development apart from being useful as a macronutrient.

What is MADS27?

- The gene MADS27, which regulates nitrate absorption, root development and stress tolerance, is activated by the micro-RNA, miR444, therefore offers a way to control these properties of the plant.
- The researchers studied this mechanism in both rice (monocot) and tobacco (dicot) plants.

Regulatory switches

- In addition to this route, several gene regulatory switches that regulate nitrate absorption and root development, such as the micro-RNA, miR444, are known in monocot plants, such as rice.
- The micro-RNA 'miR444' is specific to monocots.
- When this is not made, its target, MADS27, is produced in higher abundance, and it improves biosynthesis and transport of the hormone auxin, which is key for root development and its branching.
- This regulatory miR444 switch is known to turn off at least five genes called MADS box transcription factor genes.
- The speciality of the MADS box transcription factors is that they function like switch boxes of their own.
- They bind to their favourite specific DNA sequences and they switch the neighbouring genes "on."

Why is the discovery important?

- Presence of nitrates is important for the plant development and also for grain production.
- However, the overuse of nitrates in fertilizers, for instance, can lead to the dumping of nitrates in the soil which leads to accumulation of nitrates in water and soil.

- This accumulation adds to soil and water pollution and increased contribution to greenhouse gases.
- Also, since the whole process of nitrate absorption takes place in the roots, a well-developed root system is needed for this to take place optimally.
- At one level, it is known that the hormone auxin is responsible for well-developed roots across all plants.
- A number of genes are known to help with auxin production, improved nitrate transport and assimilation in plants.

Significance of MADS27

- The MADS27 transcription factor has a three-pronged effect on the plant.
- First, it regulates nitrate absorption by switching “on” proteins involved in this process.
- Second, it leads to better development of the roots by regulating auxin hormone production and transport.
- Finally, and somewhat surprisingly to the researchers, it helps in the abiotic stress tolerance by keeping the main stress player proteins “on.”

8. DRDO tests Autonomous Flying Wing Technology Demonstrator

The Defence Research and Development Organisation (DRDO) has successfully carried out the maiden test flight of a new Unmanned Aerial Vehicle (UAV), an autonomous Flying Wing Technology Demonstrator, from the Aeronautical Test Range, Chitradurga, Karnataka.

About the Indigenous Drone

- The Unmanned Aerial Vehicle (UAV) is powered by a small turbofan engine.
- It is developed under unmanned combat aerial vehicle (UCAV) programme.
- It is designed and developed by Aeronautical Development Establishment (ADE), Bengaluru, a premier research laboratory of DRDO.
- The engine is Russian TRDD-50MT originally designed for cruise missiles.
- A small turbo fan engine is being developed indigenously for meeting the requirement.

Various initiatives by DRDO

- DRDO is in the process of developing UAVs of different classes to meet the requirements of the armed forces.

- Rustom-2, the indigenous Medium Altitude Long Endurance (MALE) UAV under development, had crossed a milestone by reaching an altitude of 25,000 feet and an endurance of 10 hours.
- It is now being designed to reach an altitude of 30,000 feet and 18 hours endurance.
- An Unmanned Combat Aerial Vehicle is also on the drawing board.

Significance of the development

- Operating in a fully autonomous mode, the aircraft exhibited a perfect flight, including take-off, way point navigation and a smooth touchdown.
- This flight marks a major milestone in terms of proving critical technologies towards the development of future unmanned aircraft.
- This is a significant step towards self-reliance in strategic defence technologies.

9. Coalition for Disaster Resilient Infrastructure (CDRI)

The Union Cabinet has approved the categorization of the Coalition for Disaster Resilient Infrastructure (CDRI) as an 'International Organization'.

What is the news?

- The cabinet also signed as the Headquarters Agreement (HQA) with CDRI for granting it the exemptions, immunities and privileges as contemplated under the United Nations (Privileges & Immunities) Act, 1947.
- This will provide CDRI an independent and international legal persona so that it can efficiently and effectively carry out its functions internationally.

What is CDRI?

- The CDRI is an international coalition of countries, UN agencies, multilateral development banks, the private sector, and academic institutions that aim to promote disaster-resilient infrastructure.
- Its objective is to promote research and knowledge sharing in the fields of infrastructure risk management, standards, financing, and recovery mechanisms.
- It was launched by the Indian PM Narendra Modi at the 2019 UN Climate Action Summit in September 2019.
- CDRI's initial focus is on developing disaster-resilience in ecological, social, and economic infrastructure.

- It aims to achieve substantial changes in member countries' policy frameworks and future infrastructure investments, along with a major decrease in the economic losses suffered due to disasters.

Its inception

- PM Modi's experience in dealing with the aftermath of the 2001 Gujarat earthquake" as the chief minister led him to the idea.
- The CDRI was later conceptualized in the first and second edition of the International Workshop on Disaster Resilient Infrastructure (IWDR) in 2018-19.
- It was organized by the National Disaster Management Authority (NDMA), in partnership with the UN Office for Disaster Risk Reduction (UNDRR), the UN Development Programme, the World Bank, and the Global Commission on Adaptation.

Its diplomatic significance

- The CDRI is the second major coalition launched by India outside of the UN, the first being the International Solar Alliance.
- Both of them are seen as India's attempts to obtain a global leadership role in climate change matters and were termed as part of India's stronger branding.
- India can use the CDRI to provide a safer alternative to China's Belt and Road Initiative (BRI) as well.

Why designated as International Organization?

- Deputing experts to other countries
- Deploying funds globally and receive contributions from member countries
- Making available technical expertise to assist countries
- Imparting assistance to countries in adopting appropriate risk governance arrangements and strategies for resilient infrastructure
- Aligning with the Sustainable Development Goals (SDGs), the Paris Climate Agreement and the Sendai Framework for Disaster Risk Reduction
- Leveraging international engagement to foster disaster-resilient infrastructure at home; and,
- Providing Indian scientific and technical institution as well as infrastructure developers an opportunity to interact with global experts.

10. The inflation tightrope

The Indian economy has been hit by inflationary shocks of late.

Inflation story so far

- **RBI mandate:** The inflation target of the Reserve Bank of India is **4 per cent**, with a band of 2 per cent on either side.
- Inflation was at or above the **upper threshold of 6 per cent** since the beginning of this year.
- Only after inflation hit 7 per cent did the RBI raise the repo rate.
- **Increase in interest rate:** The RBI has raised the cost of borrowing (by 90 basis points so far), with a promise of more to come.
- **Fuel taxes reduced:** The central government has cut fuel taxes with alacrity, and has banned the export of certain items.

Role of monetary authorities

- Monetary authorities **raise interest rates** if inflation is above the preferred target, and vice versa.
- **What should be the interest rate?** Interest rates should rise more than inflation so the “real” interest rates rise, causing a compression in demand (and a fall in economic activity), which in turn will reduce inflation.
- The RBI embraced this idea. In 2016, an independent monetary policy committee was constituted.

Effects of global inflation

- Some part of inflation is coming from abroad is an added complication.
- **Outflow of fund:** There has also been a steady **outflow of foreign funds** from the stock market.
- **Depreciation of rupee:** This could cause the **rupee to depreciate**, in turn, raising the prices of imported goods thereby adding to the inflationary woes.

Two ways in which the Indian economy is different

1] Role of agriculture in Indian economy

- India's non-food and non-oil components of the consumer price index CPI are **about 47 per cent**.
- In comparison, for the ECB, it is less than one-third of the CPI.
- Of course, the RBI has no control over international prices of food and oil, so it must squeeze less than 50 per cent of the domestic economy to lower inflation.
- The real interest rise works through **demand compression**.
- But the problem is on **the supply side**.
- Also, as compared to the RBI, the **ECB would suffer a lower rise in inflation**, and has a larger menu on which to apply demand compression.

2] Exchange rate and its effect on output

- Until the 1970s, the accepted wisdom was that an economy had to achieve both internal balance and external balance.
- **Internal balance** consisted of full employment and low inflation using monetary and fiscal policies.
- Over time, the internal balance has come to mean, from a policy perspective, low inflation, since “the market” will ensure full employment.
- **External balance** required a balanced current account over some horizon (“don’t get too much into foreign debt”), by using, for example, the exchange rate.
- For the OECD countries, **the external balance was not a constraint** any longer, since they had made their currencies **fully convertible**, and international capital flows were unrestricted.
- But this is not the case with India.
- If it were so, no one would be interested in discussing the country’s foreign exchange reserves, because these could be generated instantaneously by **exchanging the domestic currency for foreign exchange**.

India’s foreign reserves and its impact on competitiveness of Indian products

- Until 2020, India had seen massive portfolio capital inflows when OECD interest rates were low, and its **current account deficits were financed by foreign reserves**.
- But portfolio inflows can, and do, reverse themselves.
- FII inflows also contribute to India’s **lack of competitiveness**.
- The RBI bought foreign exchange (with rupees).
- But fearing this would **stoke inflation**, it sold government bonds, and removed the **excess liquidity**.
- This “**sterilised intervention**” saw the RBI’s foreign exchange assets going up, matched by a reduced holding of government bonds.
- Thus, India’s foreign exchange reserves were not its “own” – there were liabilities against it.
- **India’s Dutch Disease**: The RBI could have let the rupee appreciate or have accumulated foreign reserves.
- It chose an **intermediate solution** – a mix of an appreciation and accumulation of reserves.
- The appreciation caused by inflows reduced international competitiveness for Indian products.
- In effect, we had our own episode of the “Dutch Disease”.

Way forward

- As the RBI raises interest rates, outflows will possibly slow down with the rupee appreciating.
- That is not good for external balance.
- It is easy to see that inflation targeting could be at odds with external balance.

Conclusion

If inflation does prove stubborn, and fighting inflation is all that the authorities in India worry about, we could see an external crisis.

11. Towards a single low tax regime

The introduction of a uniform GST was a watershed moment in India since the country's earlier regime of taxes and cesses. However, GST is still a complicated tax regime with different slabs.

Unified single tax

- Empirical data from across the world on the benefits of a unified single tax is incontrovertible
- This needs bold and clear reformist thinking at the political level.
- Imposing a high GST in some areas does not make sense.
- 'Sin' taxes are at cross purposes with the government's policy of generating growth and creating jobs under 'Make in India'.
- High taxes on air-conditioners, air conditioned restaurants, chocolates and luxury cars create an economic ripple effect downstream, in a complex web of businesses that have **symbiotic relationships**.
- The effect finally reaches down to the **bottom of the employment pyramid**.
- **Distrust between State and centre:** There is distrust between the States and the Centre on revenue sharing.
- There is also anger at the Centre for riding roughshod over the States' autonomy and disregarding the federal structure.

Multiple rates: A major shortcoming in the structure of GST

- One of the most important shortcomings in the structure of GST is multiple rates.

- The committee headed by the Chief Economic Adviser estimated the tax rate at 15-15.5 per cent.
- It further recommended that in keeping with growing international practice, India should strive towards a single rate in the medium-term to facilitate administrative simplicity and compliance, but in the immediate context, it should have a three-tier structure (excluding zero).
- The structure finally adopted was to have four rates of **5, 12, 18, and 28 per cent** besides zero, though almost 75 per cent of the revenues accrue from the 12 and 18 per cent slabs.
- **Why single rate structure?** The reasons for adopting a single rate structure in most countries are:
 - To have a **simple tax system**,
 - To prevent **misclassifications and litigations** arising therefrom,
 - To avoid an **inverted duty structure** of taxes on inputs exceeding those on outputs requiring detailed scrutiny and refunds.
- **Why multiple rates?** The main reason for rate differentiation is **equity**.
- But it is argued that this is an **inefficient way of targeting benefits for the poor**.
- Although the exempted and low-rated items are consumed relatively more by the poor, in absolute terms, **the consumption may be more by the rich**.

Way forward

- **Move people up the value chain:** The plan must be to figure out how to rev up the economy by making the rich and upper middle class **spend and move more people up the value chain** instead of designing a tax system that keeps these products out of the new consumer class's reach.
- The same lack of logic applies to taxes on wine, rum and beer, which generate large-scale employment and are the backbone of grape and sugarcane farming and the cocoa industry.
- In the automobile sector, the GST on electric cars, tractors, cycles, bikes, low-end and luxury cars ranges anywhere from 5% to 50%.
- The sale of automobiles is the barometer of an economy.
- **Single tax slab:** A directive to the bureaucracy is necessary to come up with just two categories: goods eligible for zero tax and goods that will fall under a single rate, say 10% or 12%.
- Then there are items that are exempt from GST.
- **Bring fuels under GST:** Petrol, diesel, aviation turbine fuel are not under the purview of GST, but come under Central excise and State taxes.
- A single low tax regime will ensure compliance, widen the tax net, improve ease of doing business, boost the economy, create jobs, increase tax collections and reduce corruption

Conclusion

The Finance Minister should take a cue from the Prime Minister, who hinted at major reforms in the aftermath of COVID-19, and do away with all the confusing tax slabs in one fell swoop.

12. Why rice and wheat bans aren't the answer to inflation

There are reports suggesting that the government is mulling a ban on rice exports to tame inflation.

Background

- This is surely not the first time an attempt is being made to ban wheat and rice exports.
- It was also done in 2007-08, in the wake of the global financial crisis.
- Perhaps government will also impose stocking limits on traders for a host of commodities, suspend **futures trading in food items**, and even conduct income tax raids on traders of food.

Issues in India's rice export strategy

- **Highest ever volume:** India exported the highest-ever volume of 21 million metric tonnes (MMT) of rice in 2021-22 (FY22) in a global market of about 51.3 MMT, which amounts to about 41 per cent of global exports.
- **Reduces price:** Such large volumes of rice exports brought down global prices of rice by about 23 per cent in March (YoY), when all other cereal prices, be it wheat or maize, were going up substantially in global markets.
- In fact, in FY22, the unit value of exports of common rice was just \$354/tonne, which was lower than the minimum support price (MSP) of rice.
- **Below MSP buying or leakage from PMGKAY:** This meant that rice exporters were either buying rice (paddy) from farmers and millers **at below the MSP** or that quite a substantial part of rice was given free under the PM Garib Kalyan Ann Yojana (PMGKAY) was being **siphoned away** for exports at prices below MSP.
- **Artificial competitive advantage:** Free electricity for irrigation in several states, most notably Punjab, and highly subsidised fertilisers, especially urea, create an artificial competitive advantage for Indian rice in global markets.
- **Suggestion:** This is a perfect case for "optimal export tax" – not a ban – on rice exports.

- If we can't raise the domestic price of urea, which is long overdue, we should at least recover a part of the urea subsidy from rice exports by imposing **an optimal export tax**.

Why export ban on wheat and rice is not a solution

- **Small contribution of cereals in inflation:** In May, the consumer price index (CPI) inflation was 7.04 per cent (YoY). The cereals group as a whole contributed only 6.6 per cent to this inflation.
- Within that, wheat, other than through PDS, contributed just 3.11 per cent and non-PDS rice contributed 1.59 per cent.
- So, by imposing a ban on wheat and rice exports, India can't tame its inflation as more than 95 per cent of CPI inflation is due to other items.
- Interestingly, inflation in vegetables contributed 14.4 per cent to CPI inflation, which is more than three times the contribution of rice and wheat combined. And within vegetables, tomatoes alone contributed 7.01 per cent.
- What all this indicates is that agri-trade policies need to be more stable and predictable, rather than a result of knee-jerk reactions.★
- **Irresponsible behaviour:** Export bans on food items also show somewhat irresponsible behaviour at the global level, unless there is some major calamity in the country concerned.
- The recently concluded WTO ministerial meeting as well as the G-7 meet expressed concerns about food security in vulnerable nations.

Way forward

- **Efficient value chain and processing facilities:** In commodities like vegetables, most of which are largely perishable, we need to build **efficient value chains** and link these to processing facilities.
- The same would go for onions, which often bring tears to kitchen budgets when prices shoot up.
- A switch to dehydrated onion flakes and onion powder would be the answer.
- Our food processing industry, especially in perishable products, is way behind the curve compared to several Southeast Asian nations.

Conclusion

If India wants to be a globally responsible player, it should avoid sudden and abrupt bans and, if need be, filter them through transparent export taxes to recover its large subsidies on power and fertilisers.

13. The extent of poverty

There has been an uproar about the working papers of the IMF and World Bank, reporting no or low poverty for India in the pandemic year or just before that.

About the IMF paper

- The paper by Roy and Weide (2022) for the World Bank explores the possibility of using CMIE (unemployment data) in poverty calculations after **correcting** for the unrepresentative character of its panel data by modifying the weightages of households for aggregation.
- These adjustments carried out to remove the non-convergence of the CMIE data with other macro statistics have resulted in a **poverty figure of 12 per cent**.

What does the poverty index measure or attempt to capture?

- Its construction involves complex calculations – to identify a poverty basket of consumption, working out **price indices for updation of the poverty line** and then applying it to the **income or consumption of households** for determining their poverty status.
- **Absence of consumption expenditure:** The computation becomes far more challenging in the absence of data **on consumption expenditure** as is the case in India and several developing countries.
- Intending to provide inputs for policy making, researchers have evolved ingenious methods of estimating the data, using past datasets and those that have not been designed to get robust expenditure estimates.

Background of poverty line in India

- A nine-member working group set up by the Planning Commission proposed the **poverty line at Rs 20 per capita per month** in the early Sixties, loosely ensuring the adequacy of minimum requirements.
- **Poverty line based on calorie needs:** Dandekar and Rath (1970) went into detail about minimum calorie needs, based on the average consumption pattern.
- **Issues with calorie based poverty line:** During the Eighties and Nineties, it was realised that this linkage is getting blurred due to **changes in the consumption pattern**, microenvironment for living, etc.
- Sukhatme argued that the emphasis on calories and nutrition is misplaced as the absorption of nutrients **depends on physical health**, particularly the presence or absence of gastrointestinal diseases.
- **Water and sanitation facilities** were noted as important in determining the poverty line.

- It was accepted that the state, through poverty interventions, cannot and should not try to guarantee adequate nutrition to people.
- **Delinking the nutritional norms:** The **Tendulkar Committee** formally announced delinking of nutritional norms from poverty in 2010.

Extrapolating the consumption expenditure on NSS 2011-12

- Bhalla, Virmani and Bhasin (2022) in their IMF Working Paper have developed a method of interpolation and extrapolation of the consumption expenditure of the NSS 2011-12 and building a series up to 2019-20.
- They use the **growth rate of private final consumption expenditure (PFCE)** but bring in the distributional changes by allowing household consumption to grow as per the nominal per capita income in each state.
- **Takes into account rural-urban price difference:** Rural-urban price differences are also introduced through separate poverty lines.
- The method is reasonable except that it assumes the **distributions to remain unchanged** both within the rural and urban segments in each state over 2014-20.
- Also, the growth rates of different commodities in the PFCE are significantly different and hence commodity-wise adjustments can be done to give higher weights to the items of consumption by the poor.
- **Taking into account the role of state:** The most significant contribution of the study is its bringing in the differential engagement of the state in the provisioning of the essentials to the poor into poverty calculations.
- This opens up the possibility of **changes in the level of state engagement** in poverty estimation, including free gas cylinders, etc.

Conclusion

People find the World Bank paper figures pegged at 12% more acceptable not because of the methodology but the magnitude. One does not know whether the poverty estimate would be a bit higher had the adjustments been carried out for a few other parameters and also at the state level.

14. Enforcing the Single-Use Plastic Ban

A ban on the use of single-use plastics that was notified by the Union Environment Ministry on August 2021 came into effect on July 1 this year.

What is the news?

- The national and State-level control rooms would be set up to check illegal manufacture, import, stocking, distribution, sale and use of banned single use plastic items.
- The Plastic Waste Management Amendment Rules, 2021, will also prohibit manufacture, import, stocking, distribution, sale and use of plastic carry bags.
- This is for plastics having **thickness less than 120 microns** with effect from December 31, 2022.

What is Single-Use Plastic?

- The Centre defines it as an object made of plastic that is intended to be used “only once” before being disposed off or recycled.
- Single-use plastic items such as these had “low utility and high littering potential,” it noted.

What is now included in SUPs?

- For the purposes of the ban, there is a list of 21 items that come under the definition of single-use plastic including ear buds with plastic sticks, plastic sticks for balloons, plastic flags, candy sticks, ice-cream sticks, thermocol for decoration etc.
- It also includes plates, cups, glasses, cutlery such as forks, spoons, knives, straw, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 microns, stirrers.
- These objects were listed by the Environment Ministry in August when it notified the Plastic Waste Management Amendment Rules, 2021.

How will the ban be implemented?

- So far 32 States/UTs have reportedly constituted a dedicated Task Force to eliminate the use of single-use plastics.
- Of these 14 states/UTs and 12 Central Ministries, as of March, had developed action plans describing how they would be enforcing this.
- A few States, for example Maharashtra, already have legislation banning the manufacture and storage of such plastic.
- But implementing it wasn't always successful as there was regular supply from States where such bans were not in force.
- An all-India ban, it's hoped, would make enforcement more effective.

Penal provisions

- According to the Environment Protection (EP) Act, violating the ban could invite “punitive action”.
- Manufacturers and distributors of single-use plastic goods were directed to have zero inventory by June 30.
- The EP Act says that violating the ban could invite a five-year imprisonment and a fine of upto ₹1 lakh, or both.
- If the violations are repeated, it could mean additional fines up to ₹5000 for each day.
- There are different penalties for companies, organisations, and government departments under the EP Act.

What is the history of the single use plastic ban in India?

- The Environment Ministry told the Rajya Sabha last July of its plan to phase out some categories of single use plastic by 2022.
- A draft outlining the manner in which the ban was to be implemented was issued in March and involved amending the PWM Rules, 2016.
- Before the amendments came into force, the Rules only prohibited the manufacture, import, stocking, distribution, sale and use of carry bags and plastic sheets less than 50 microns in thickness in the country.
- There is a ban on sachets using plastic material used for storing, packing or selling gutkha, tobacco and pan masala.
- Since October 2021, there is a **ban on carry bags made of virgin or recycled plastic less than 75 microns as opposed to 50 microns** under the earlier version of the rules.

Is there popular support for the ban?

- The All India Plastic Manufacturers Association has said that the ban would shutter 88,000 units in the plastic manufacturing business.
- These employ close to a million people and contribute to exports worth ₹25,000 crore.
- Fast Moving Consumer Goods companies (FMCG) would be severely affected by the the ban due to their dependence on plastic straws, plates.
- Their replacements, industry representatives say, are available but cost much more than their plastic alternatives.
- There is also limited capacity in India to provide biodegradable replacements.

What is the environmental damage from SUPs?

- Unlike thicker and denser plastic material, single-use plastic objects being light and flexible are less amenable to being recycled.

- While 99% of plastic is recycled, they constitute heavier plastics that are likely to be collected by ragpickers and plastic waste recyclers.
- Single use plastics do not provide an incentive enough for the effort needed to collect them and hence they lie around, leach their toxins into the soil and cause environmental damage in both land and sea.

15. What is the Large Hadron Collider (LHC)?

The world's most powerful particle collider, the Large Hadron Collider (LHC), will begin smashing protons into each other at unprecedented levels of energy beginning July 5.

What is the LHC?

- The Large Hadron Collider is a giant, complex machine built to study particles that are the smallest known building blocks of all things.
- Structurally, it is a 27-km-long track-loop buried 100 metres underground on the Swiss-French border.
- In its operational state, it fires two beams of protons almost at the speed of light in opposite directions inside a ring of superconducting electromagnets.
- The LHC's second run (Run 2) began in 2015 and lasted till 2018. The second season of data taking produced five times more data than Run 1.
- The third run will see 20 times more collisions as compared to Run 1.

How does it work?

- The magnetic field created by the superconducting electromagnets keeps the protons in a tight beam and guides them along the way as they travel through beam pipes and finally collide.
- Just prior to collision, another type of magnet is used to 'squeeze' the particles closer together to increase the chances of collisions.
- The particles are so tiny that the task of making them collide is akin to firing two needles 10 km apart with such precision that they meet halfway.

Extreme conditions involved

- Since the LHC's powerful electromagnets carry almost as much current as a bolt of lightning, they must be kept chilled.
- The LHC uses a distribution system of liquid helium to keep its critical components ultracold at minus 271.3 degrees Celsius, which is colder than interstellar space.

- Given these requirements, it is not easy to warm up or cool down the gigantic machine.

What is the latest upgrade?

- Three years after it shut down for maintenance and upgrades, the collider was switched back on this April.
- This is the LHC's third run, and it will operate round-the-clock for four years at unprecedented energy levels of 13 tera electron volts.

Targets this year

- It now aims to be delivering 1.6 billion proton-proton collisions per second.
- The last time, the proton beams will be narrowed to less than 10 microns – a human hair is around 70 microns thick – to increase the collision rate.
- ATLAS is the largest general purpose particle detector experiment at the LHC.
- The Compact Muon Solenoid (CMS) experiment is one of the largest international scientific collaborations in history, with the same goals as ATLAS, but which uses a different magnet-system design.

Previous runs & 'God Particle' discovery

- Ten years ago, in 2012, scientists at CERN had announced to the world the discovery of the **Higgs boson or the 'God Particle'** during the LHC's first run.
- The discovery concluded the decades-long quest for the 'force-carrying' subatomic particle, and proved the existence of the **Higgs mechanism**, a theory put forth in the mid-sixties.
- This led to Peter Higgs and his collaborator François Englert being awarded the Nobel Prize for physics in 2013.
- The Higgs boson and its related energy field are believed to have played a vital role in the creation

16. Making sense of Assam floods

This year's floods in Assam have been merciless. In many parts of the state, both rural and urban, shoals of water drove people from their homes and forced many of them to seek shelter for their livestock.

Understanding the reasons for massive flood in Assam this year

- The Bay has a major influence on the monsoon in Northeast India.
- Two coupled ocean-atmosphere phenomena, one from the distant Pacific, **La Niña** and another in the tropical Indian Ocean, a **negative dipole condition**, combined to create high rainfall in the Bay of Bengal.
- To add to that, a **warmer atmosphere because of climate change** can hold more moisture leading to intense bouts of rain.
- Apart from embankment failures, a number of unofficial and media reports suggest that the devastation in the floodplains is also a consequence of the way **the dams and reservoirs are operated**.
- This indicates that environmental factors unique to each locality are responsible for the floods.
- The flooding pattern is usually repeated year-to-year. However, at times, this pattern is disturbed – this year for example.
- The incidence of such megafloods depends on several variables like unusually high rainfall and the failure of critical embankments.

Role of floods in the making of the floodplain environment and ecology

- **Rejuvenation of ecosystem:** Floods cause disruption and damage but they also generate a bounty of fish and **rejuvenate flood-plain ecosystems** all along the Brahmaputra, including in the Kaziranga.
- **Landscape:** This landscape has been shaped over millions of years with the help of an active monsoonal environment and mighty rivers that carry sediments weathered from the still-rising Himalaya.
- Every year, the Brahmaputra and its tributaries – which are at the centre of Assam's environment – transport billions of tonnes of sediment, mainly from the Eastern Himalaya, making the landscape volatile.
- Flooding helps release waters to surrounding land and distribute sediments and nutrients across the floodplains and wetlands.

How human presence has influenced floodplains

- As the human footprint intensified on the floodplains, the landscape was increasingly “developed and engineered”.
- The engineered and planned landscape has affected the floodplains in two ways: It has undermined their ability to store and absorb water and reduced their capacity to transport sediment.
- **Urban floods:** This year's floods took an especially worrying proportion in several urban areas.
- Guwahati has historically been a lowland and the city has been uniquely shaped by three hills that accumulate water during the monsoon.

- Its northern side faces one of the most turbulent rivers in the world.
- However, extensive swamps, channels and their tributaries worked in tandem **to make the place habitable**.
- A transformation, however, took place in the 20th century, especially in the later decades, when these natural features were forced to disappear.
- From an estimated 11,000 people in 1901, the city now is home to close to 1.1 million people.
- Such a population increase is bound to have several footfalls and not all of them could have been prevented.
- What has hit the city hardest is the **disappearance of some of its critical environmental features**.

Way forward

- Human interventions such as dams to “tame” rivers and “stabilise” hydrologically dynamic landscapes and riverscapes should be based **on guidelines that account for the environmental conditions in Northeast India**, especially the fragile geology, changing rainfall patterns, high seismicity and the risk of landslides.
- **Resilience of people:** The rapid transformation in rainfall characteristics and flooding patterns demand building people’s resilience.
- **Reconsider projects:** Construction projects that impede the movement of water and sediment across the floodplain must be reconsidered.
- **Use of technology:** At the same time, climate-imposed exigencies demand new paradigms of early-warning and response systems and securing livelihoods and economies.

Conclusion

Floods have played a key role in Assam’s ecology. But increasing human footprint has affected the ability of flood plains to absorb water and transport sediment.

17. Aviation sector in India: Issue and Challenges

What is the issue?

Policymakers ought to recognise the country’s untapped potential and work towards dismantling the many hurdles.

What is the significance of aviation sector?

India is the world’s third-largest market in aviation sector.

- Aviation is integral to equitable economic growth, for a country to be globally competitive and to change the situation of poverty and unemployment.
- Passenger airlines and air cargo overcome geography and connect remote areas that are alienated from the mainstream.
- They can drive investment deep into the country, giving people access to markets.
- They also boost tourism, which is the largest employment generator in the unorganised sector.

What is the status of aviation sector in India?

- **Pre-economic reform period**- India had only two airlines - Air India and Indian Airlines.
- **Post 1991 reforms**- The reforms that opened up the aviation sector in 1991 and ended the licence raj and the monopoly of Indian Airlines and Air India changed the sector.
- Numerous private sector airlines were given the licence to fly, but Jet Airways and Sahara, survived, resulting in cartelisation.
- The concept of low cost airlines in India took shape in 2003 which overcame the cost barrier.
- Sadly, Indian aviation has become 'the sick man of India'.

What are the barriers in Indian aviation sector?

- **Per capita consumption of air tickets** - The number of Indians who buy air tickets in 2019 is 140 million of which 35 million to 40 million frequent flyers form the bulk of ticket buyers.
- It translates to less than 4% of the population who can afford air travel, placing India just alongside some poorer African countries, in terms of the per capita consumption of air tickets.
- **Factors affecting the growth of aviation sector**- The growth of aviation has been affected by
 - Choking regulations
 - Tough entry barriers for new entrants
 - High fuel prices on account of sky high taxes
 - Inefficient public sector airports that pave the way for monopoly airports
- Frequent and knee-jerk changes point to the absence of a long-term visionary strategic policy for the entire gamut of sectors in aviation.

How efficient are government schemes in the development of the airline sector?

- **Boosting entrepreneurship-** Start-up India initiative was started with the objective of supporting entrepreneurs, building a robust startup ecosystem and transforming India into a country of job creators.
- **Regional connectivity-** Ude Desh Ka Aam Naagrik (UDAN) scheme aims to connect small and medium cities with big cities through air service.
- **Low cost airlines-** UDAN plans to connect the underserved airports to key airports through flights that will cost Rs 2,500 for per hour flight.
- **Comprehensive development-** The National Civil Aviation Policy 2016 aims to take flying to the masses and covers 22 areas of the Civil Aviation sector.

What reforms are needed?

- **Reforms in all sectors-** It is critical to understand that for passenger airlines to grow, there have to be reforms in all areas of aviation – air cargo, airports, aviation fuel taxes and Maintenance, Repair and Overhaul (MRO).
- **Updated laws-** India's Aircraft Act, 1934 and Aircraft Rules, 1937 need to be updated to keep pace with modern technology in aerospace, increasing costs to the industry and ultimately affecting passenger growth.
- **Overhaul DGCA** – India's statutory regulatory authority, the Directorate General of Civil Aviation (DGCA), needs to be modernised, well-staffed, motivated and incentivized.
- **Need for aviation professionals-** There need to be aviation professionals in charge rather than the ubiquitous bureaucrat from the Indian Administrative Service.

18. What are Critical Minerals?

India and Australia have decided to strengthen their partnership in the field of projects and supply chains for critical minerals.

What is the news?

- Australia has confirmed that it would commit A\$5.8 million to the three-year India-Australia Critical Minerals Investment Partnership”.

What are Critical Minerals?

- Critical minerals are elements that are the building blocks of essential modern-day technologies, and are at risk of supply chain disruptions.

- These minerals are now used everywhere from making mobile phones, computers to batteries, electric vehicles and green technologies like solar panels and wind turbines.
- Based on their individual needs and strategic considerations, different countries create their own lists.
- However, such lists mostly include graphite, lithium, cobalt, rare earths and silicon which is a key mineral for making computer chips, solar panels and batteries.
- Aerospace, communications and defence industries also rely on several such minerals as they are used in manufacturing fighter jets, drones, radio sets and other critical equipment.

Why is this resource critical?

- As countries around the world scale up their transition towards clean energy and digital economy, these critical resources are key to the ecosystem that fuels this change.
- Any supply shock can severely imperil the economy and strategic autonomy of a country over-dependent on others to procure critical minerals.
- But these supply risks exist due to rare availability, growing demand and complex processing value chain.
- Many times the complex supply chain can be disrupted by hostile regimes, or due to politically unstable regions.
- They are critical as the world is fast shifting from a fossil fuel-intensive to a mineral-intensive energy system.

What is China 'threat'?

- China is the world's largest producer of 16 critical minerals.
- China alone is responsible for some 70% and 60% of global production of cobalt and rare earth elements, respectively, in 2019.
- The level of concentration is even higher for processing operations, where China has a strong presence across the board.
- China's share of refining is around 35% for nickel, 50-70% for lithium and cobalt, and nearly 90% for rare earth elements.
- It also controls cobalt mines in the Democratic Republic of Congo, from where 70% of this mineral is sourced.
- In 2010, China suspended rare earth exports to Japan for two months over a territorial dispute.

What are countries around the world doing about it?

- US has shifted its focus on expanding domestic mining, production, processing, and recycling of critical minerals and materials.
- India has set up KABIL or the Khanij Bidesh India Limited to ensure mineral security of the nation.
- Australia's Critical Minerals Facilitation Office (CMFO) and KABIL had recently signed an MoU aimed at ensuring reliable supply of critical minerals to India.
- The UK has unveiled its new Critical Minerals Intelligence Centre to study the future demand for and supply of these minerals.

19. Strong dollar and its Implication for India

What is the issue?

The US Dollar Index, which measures the greenback's exchange rate against 6 major global currencies, recently surpassed its 20-year high.

Why is the US dollar strengthening?

The US Dollar Index, also known as DXY, is used by traders seeking a measure of the value of USD against a basket of currencies used by US trade partners. The index will rise if the Dollar strengthens against these currencies and will fall if the Dollar weakens against these currencies.

- **Consumer Price Inflation-** US consumer price inflation hit 8.6% in May 2022, its highest level since December 1981, driven by high energy and food prices.
- When inflation rises, interest rates in an economy generally catch up.
- This makes bond investments in the country more attractive, leading to higher demand for the currency.
- **US Federal Reserve's increase in rates-** Since March, the Fed has raised its policy rates by 150 basis points.
- When the Federal Reserve increases the federal funds rate, it typically increases interest rates throughout the economy, which tends to make the dollar stronger.
- **Western central banks raising the rates-** With Western central banks closing the tap to easy money and raising rates, the tidal wave of cheap global money originating from these countries, has suddenly begun to recede.
- This has led to sharp falls in risky assets, prompting a global flight to safety.

- As they withdraw from risky assets and repatriate their money back home, dollar demand surges, further strengthening the Dollar Index.

What does this mean for the India?

- **Imports**- India relies on dollar-denominated imports for over 85% of its crude oil requirements and imports more goods than it exports.
- Therefore, India's import bill usually shoots up when the dollar strengthens, increasing the local demand for dollars.
- **Widening deficit**- It will widen the deficit between its imports and exports.
- **Balance of payments crisis**- If this gap gets out of control, it can lead to a balance of payments crisis (though risks of this are low in the current context).
- **FPI pullouts**- Foreign Portfolio Investor (FPI) pullouts worsen the situation because this further increases the domestic demand for dollars.
- **Depreciation of Indian rupee**- When the US dollar strengthens, the Indian rupee usually has no choice but to give in.
- Since the beginning of the year, the rupee has lost about 6% in value terms against the dollar.
- **Domestic inflation**- Many essential commodities and intermediate goods that India imports also get costlier, thus feeding into domestic inflation.
- **Remittance**- Indians who remit money in dollars to support relatives will need to shell out more.
- **Interest rate hike by RBI**- A fast-depreciating rupee can also force the RBI's hand in hiking interest rates more quickly or steeply than it originally intended.

How is the RBI handling this situation?

- When the rupee slides against the dollar, the RBI has two main weapons.
- **Interest rate hikes**- The RBI can put through sharp interest rate hikes in India, to make domestic bonds and gilts more attractive to foreign investors, so that they rethink their pullouts.
- **Usage of forex reserves**- RBI can use its large foreign exchange reserves, built up precisely for such contingencies, to intervene directly in the currency market.
 - So far this year, RBI is estimated to have spent over \$40 billion out of its reserves to sell dollars and buy up rupees.
- It has also been taking sell positions in the dollar in the futures and forward markets.
- The main intent of RBI is to prevent shocks to the economy from a spell of unruly exchange rate volatility.

20. EU's Sustainable Finance Taxonomy

In news

EU has recently agreed to label investments in some gas and nuclear power plants as environment-friendly.

What is the EU's sustainable finance taxonomy?

The EU aims to eliminate the net emissions by 2050.

- The EU taxonomy is a tool to help investors understand whether an economic activity is environmentally sustainable.
- **Objectives-** The taxonomy regulation establishes 6 environmental objectives.
 - Climate change mitigation
 - Climate change adaptation
 - The sustainable use and protection of water and marine resources
 - The transition to a circular economy
 - Pollution prevention and control
 - The protection and restoration of biodiversity and ecosystem
- To be deemed green, an activity must substantially contribute to one of six environmental aims and not harm the other five.
- The taxonomy does not ban investments in activities not labelled green, but it limits which ones companies and investors can claim are climate-friendly.
- The EU Taxonomy is not a mandatory list of economic activities for investors to invest in.

Rules- Rules for most sectors came into effect in 2022, covering investments including steel plants, electric cars and building renovations.

- The rules for gas and nuclear energy have been delayed amid intense lobbying from governments who disagree on whether the fuels help fight climate change.

Why do we need an EU Taxonomy?

- **Translates the environmental objectives-** The EU Taxonomy is a tool translating the climate and environmental objectives into clear criteria, to create a common language around green activities.

- **Frame of reference-** It will create a frame of reference for investors and companies.
- **Support for companies-** It will support companies in their efforts to plan and finance their transition and help mitigate market fragmentation.
- **Removes greenwashing-** The rules also aim to stamp out greenwashing, where organisations exaggerate their environmental credentials, among so-called eco-friendly investment products.
- **Sustainable finance framework-** It is an important element of a much broader sustainable finance framework that will deliver a complete toolkit for financing the transition.
- **Aids in the implementation of European Green Deal-** The added value of the EU Taxonomy is that it can help scale up investment in green projects that are necessary to implement the European Green Deal.

What does the taxonomy say about gas and nuclear energy?

- Under the Commission proposal, for a gas-fuelled power plant to be deemed green,
 - It must emit no more than 270 grams of CO₂ equivalent per kilowatt hour (or)
 - Have average emissions of 550g CO₂e/kW over 20 years
 - It must also commit to switch to low-carbon gases by 2035
- Countries such as Denmark and Luxembourg say that it is not credible to label gas, a fossil fuel, as green.

21. ARYABHAT-1: Prototype of Analog chipset

IISc researchers recently developed a prototype of an analog chipset called “ARYABHAT-1”.

Highlights

- The team has created a design framework to develop next-generation analog computing chipsets.
- These chipsets may operate faster. It will use less power as compared to digital processors used in different electronic gadgets.
- It has been designed by Pratik Kumar, who is a Ph.D. student at IISc.

About ARYABHAT-1

- ARYABHAT-1 stands for “Analog Reconfigurable Technology and Bias-scalable Hardware for AI Tasks”.
- Such chipsets can be beneficial for applications based on Artificial Intelligence (AI) such as object or speech recognising apps including Alexa. It can also be beneficial for applications requiring very efficient parallel computations.
- Digital chips are used in many electronic devices, especially those require computers because design process is scalable and straightforward.

Benefits of Analog Computing

Analog computing is potentially active to perform as compared to digital computing in applications which do not call for accurate computations. Analog computing is more energy-efficient.

Challenges of making analog chips

Multiple technological challenges are associated with building analog chips:

1. Testing and co-designing the Analog processor is challenging, as compared to that of digital chips. Large-scale digital processors can be developed quickly by compiling high-level code.
2. Analog chips are difficult to scale as well. They are specially tailored while shifting to new applications or next generation of technology.
3. It would not be easy to trade-off power and area for the purpose of speed and accuracy. Though, accuracy can be improved by incorporating additional elements on same chip, like logic units.

Applications of ARYABHAT

According to researchers, ARYABHAT is capable to be configured with several machine learning architectures. For instance, with the digital CPUs. It has the potential to function reliably on different temperature range.

22. Cloudburst at Amarnath shrine

On July 8, 2022, a cloudburst near Amarnath shrine in Jammu and Kashmir took life of 15 people and over 40 are missing. Following the cloudburst, Amarnath yatra has been suspended till further advisory.

- Cloudburst has destroyed the community kitchens and tents near the shrine. It was reported at around 5:30 pm.
- Security forces disaster management agencies started the rescue operation immediately.
- Cloudburst is the reason that has been attributed as a cause of death of at
- However, according to India Meteorological Department (IMD), sudden rainfall was not a cloudburst.

IMD Advisory

A special weather advisory is released every year by IMD, for the Yatra. On July 8, daily forecast for this area was on “yellow alert”, meaning “keep watch”. Even the evening forecast stated “partly cloudy sky with chances of light rain” for all the routes towards Amarnath Shrine. No accompanying warning was issued. According to automatic weather station (AWS) data at the Amarnath cave, no rainfall was reported from 8:30 am to 4:30 pm. Between 4:30 to 5:30 pm, 3 mm rainfall was reported, which increased to 28 mm between 5:30 pm-6:30 pm.

What is cloudburst?

According to criterion of IMD, if there is a rainfall of 100 mm in one hour, then it is called as cloudburst.

Was it a flash flood?

As per eyewitness and viral videos, stream between two mountains located at 200-300 metres away, resulted into heavy rainfall. It happened due to rainfall behind the Amarnath cave. It was a localised cloud over the cave, but not a flash flood. It might be the result of severe rainfall at a higher altitude than Amarnath cave.

Amarnath Temple

This shrine is located in Jammu and Kashmir, at an altitude of 3,888 m. It is located at a distance of 141 kms from Srinagar. It is an important part of Hinduism. Amarnath cave is located near Lidder Valley. It is surrounded by glaciers, snowy mountains, which remains covered with snow most of the year. Yearly pilgrimage varied between 20 and 60 days.

23. Green Hydrogen Is Critical To India's Economic Development And Net-Zero Ambitions: Report

A new report released by NITI Aayog highlights that green hydrogen can substantially spur industrial decarbonisation and economic growth for India in the coming decades.

Key Highlights of The Report

- Hydrogen is becoming **crucial for achieving decarbonization** of hard-to-abate sectors, such as iron ore and steel, fertilizers, refining, methanol, and maritime shipping, which emit major amounts of CO₂.
- There is **growing global momentum towards hydrogen**, especially on **carbon green hydrogen produced through electrolysis of water** using electricity from renewable sources
- **Declining prices of hydrogen, coupled with growing urgency** for decarbonization means the global demand for hydrogen could grow by almost 400 % by 2050, led by industry and transportation.

National Hydrogen Mission

- Prime Minister on August 15th 2021 launched the National Hydrogen Mission.
- **Aim of the mission:** To aid the government in meeting its climate targets and making India a green hydrogen hub.

Significance of this Initiative

- India's **distinct advantage in low-cost renewable energy generation** makes green hydrogen the most competitive form of hydrogen.
- Green hydrogen can achieve **cost parity with natural gas-based hydrogen** (grey hydrogen) by 2030, if not before.
 - Since hydrogen is only as clean as its source of generation, green hydrogen will be necessary to achieve a **truly low-carbon economy**.
- It will also enable the emergence of a **domestically produced energy carrier** that can reduce the dependence on imports for key commodities like natural gas and petroleum.
- Adoption of green hydrogen will also result in **3.6 Giga tonnes** of cumulative CO₂ emissions reductions between 2020 and 2050.

Recommendations in the Report

- Adoption of **detailed roadmap** focused on all aspects of 'Green Hydrogen'. A long-term roadmap will boost investor confidence.

- Intervention on the supply side to **reduce the cost of green hydrogen** to \$1/kg by granting waivers open access to production.
- **Establish mandates and provide incentives** to achieve a green hydrogen production capacity of 160 GW to encourage market development.

24. Re-wilding programme of red pandas

In New: Singalila National Park launches programme that aims to release about 20 red pandas in a period of five years

- The number of red pandas has been declining in the wild, even in the Singalila and Neora Valley National Parks, the two protected areas where the endangered mammal is found in the wild in West Bengal.
- Recent studies estimate that there are **38 of them in Singalila and 32 in Neora.**

Red Panda

- **Scientific Name:** Ailurus fulgens
- **Geographic habitat:** Sikkim, West Bengal, Meghalaya and Arunachal Pradesh
- **IUCN Status:** Endangered
- The red panda is a **small arboreal mammal** found in the forests of **India, Nepal, Bhutan and the northern mountains of Myanmar and southern China.**
- It is a **state animal of Sikkim.**
- Red pandas are **shy and solitary** and considered an **indicator species for ecological change.**
- It **thrives best** at 2,200-4,800m, in **mixed deciduous and conifer forests** with dense under stories of bamboo.
- The recent studies have concluded that **India is home to both the (sub) species – Himalayan red panda (Ailurus fulgens) and the Chinese red panda (Ailurus styani)** and the **Siang river in Arunachal Pradesh splits the two phylogenetic species.**

Singalila National Park

- Singalila National Park is a **National park of India** located on the **Singalila Ridge** at an altitude of more than 7000 feet above sea level, in the **Darjeeling district of West Bengal.**

- The park was declared a wildlife sanctuary in 1986, and was made an Indian national park in 1992.
- The park is **part of the Eastern Himalayas**.

25. Artificial diet and feeding device for mosquitoes

In News: The ICMR-Vector Control Research Centre (VCRC), Puducherry, has filed patent applications for two of its unique products – an **artificial diet and feeding device for mosquitoes** reared in laboratory – with the Indian Patent Office recently.

- The team has also planned to approach to patent it at global level.
- The two products allow **efficient and cost-effective mass-rearing of mosquitoes** in laboratory as it is important to keep these mosquitoes healthy to investigate basic facets of their biology and to study vector-borne disease and measures to control it.
- It is **quite challenging to keep regular supply of blood** from blood banks and to obtain **animal ethical clearance** to ensure regular supply of blood for **rearing mosquitoes for research purposes**
- Hence the **Institute have zeroed in on four artificial diets for feeding**.
- These four diets prepared for female mosquitoes are like a **baby formula food and has all the essential nutrients**, which are present in the blood.
- Hence **a device with controlled temperature was invented**, a prototype made and also evaluated for mosquito feeding capability. This could easily replace the conventional hot water circulator-based feeding device

Significance

- These products are **commercially viable and technically sound** and has **great potential in rearing mosquitoes** for research purposes and also for the **mass production of mosquitoes for their control based on sterile insect technology, population replacement, or population reduction study and Wolbachia endosymbiont bacteria-based control operations**.

26. New species of Miliusa – Miliusa Agasthyamala

In News: New species of Miliusa spotted in Agasthyamala

- Researchers have identified a **new species of evergreen tree** belonging to the **genus Miliusa from the Agasthyamala biosphere reserve** in the southern arm of the **Western Ghats in the Thiruvananthapuram district**.
- What makes the discovery special is that **only two mature trees have been spotted so far in its natural habitat**
- Flowering and fruiting occur during April-July.
- Given the small number of mature individuals that have been found, researchers have **recommended that the species be categorised as critically endangered (CR)**.

Agasthyamala Biosphere Reserve (ABR)

- ABR is situated at the **southern-most end of the Western Ghats** and spread over two **southern states Kerala and Tamil Nadu**.
- It was established in **2001**.
- It is **named after Agastya Mala peak** that rises up to almost 1868 metres above sea level, in Thiruvananthapuram, Kerala.
- In March 2016, it was **included in the World Network of Biosphere Reserves of UNESCO**.

27. Transition From Fossil Fuels To Renewable Energy Can Pose Fiscal Challenges For India: Study

A study was recently conducted by the International Institute of Sustainable Development (IISD) on fiscal implications of fossil fuel phase-out in six countries.

Key Highlights of the study

- **By 2050**, overall fossil fuel revenues in Brazil, Russia, Indonesia, India and China could be as much as **\$570 billion lower** than a business-as-usual scenario.
 - The **widest gaps** are expected to occur in **India (\$178 billion)**, **China (\$140 billion)**, and **Russia (\$134 billion)**.
- **Public revenues from fossil fuel production** and consumption currently account for 34% of general government revenue in Russia, **18% in India**, and 16% in Indonesia.
 - The share stands at 8% in Brazil, 6% in South Africa, and 5% in China.
 - This includes **only direct, first-order, government financial revenues** – fossil fuel dependence would be **much larger if private incomes and flow-on effects** in these economies were added.
- By comparison, **such revenues form a smaller fraction of the Gross Domestic Product (GDP) in developed countries**.

- The **U.S. government** earned \$138 billion as revenue from fossil fuels in **2019**, or about **4.5%** of the \$3.46 trillion it earned as revenues that year.

Where does India stand?

- Though India is a **net importer of petroleum products**, it earns **substantial revenues** — via cesses and taxes — from the consumption of petrol, diesel and oil.
- India is **dependent on fossil fuels for nearly 70% of its energy**.
 - Yet, it has committed to **net-zero emissions by 2070**.
- An analysis last year by the Council for Energy, Environment and Water said **India needed at least \$3.5 trillion to achieve this**.
- India also needed **nearly \$1.4 trillion, in the form of concessional finance, from developed economies** to mobilise foreign capital to bridge that gap.

Significance

- To **prevent devastating climate change**, the world has to phase out the production and consumption of fossil fuels.
- Emerging economies have an **enormous opportunity to build more resilient and economically sustainable energy systems** as they decarbonise.
 - They **must plan ahead to avoid shortfalls in public revenues** that could reverse progress on poverty eradication and economic development.

28. Increase in Current Account Deficit (CAD)

The Finance Ministry has asserted that the current account deficit (CAD) could, however, deteriorate this year mainly due to rising trade deficits.

Current Account Deficit (CAD)

- A current account is a key component of balance of payments, which is the account of transactions or exchanges made between entities in a country and the rest of the world.
- This includes a nation's net trade in products and services, its net earnings on cross border investments including interest and dividends, and its net transfer payments such as remittances and foreign aid.
- A CAD arises when the value of goods and services imported exceeds the value of exports, while the trade balance refers to the net balance of export and import of goods or merchandise trade.

Components of Current Account

Current Account Deficit (CAD) = Trade Deficit + Net Income + Net Transfers

(1) Trade Deficit

- Trade Deficit = Imports – Exports
- A Country is said to have a trade deficit when it imports more goods and services than it exports.
- Trade deficit is an economic measure of a negative balance of trade in which a country's imports exceeds its exports.
- A trade deficit represents an outflow of domestic currency to foreign markets.

(2) Net Income

- Net Income = Income Earned by MNCs from their investments in India.
- When foreign investment income exceeds the savings of the country's residents, then the country has net income deficit.
- Net income is measured by the following things:
 1. Payments made to foreigners in the form of dividends of domestic stocks.
 2. Interest payments on bonds.
 3. Wages paid to foreigners working in the country.

(3) Net Transfers

- In Net Transfers, foreign residents send back money to their home countries. It also includes government grants to foreigners.
- It Includes Remittances, Gifts, Donation etc

How Current Account Transaction does takes place?

- While understanding the Current Account Deficit in detail, it is important to understand what the current account transactions are.
- Current account transactions are transactions that require foreign currency.
- Following transactions with from which component these transactions belong to :
 1. **Component 1** : Payments connection with Foreign trade – Import & Export
 2. **Component 2** : Interest on loans to other countries and Net income from investments in other countries
 3. **Component 3** : Remittances for living expenses of parents, spouse and children residing abroad, and Expenses in connection with Foreign travel, Education and Medical care of parents, spouse and children

How will a large CAD affect the economy?

- A large CAD will result in demand for foreign currency rising, thus leading to depreciation of the home currency.
- Nations balance CAD by attracting capital inflows and running a surplus in capital accounts through increased foreign direct investments (FDI).
- However, worsening CAD will put pressure on inflow under the capital account.
- Nevertheless, if an increase in the import bill is because of imports for technological upgradation it would help in long-term development.

29. Forest Conservation Rules

Recent changes in Forest Conservation Rules (FCA) 1980

What are the Forest Conservation Rules?

The Forest Conservation Rules deal with the implementation of the **Forest Conservation Act (FCA), 1980**. They prescribe the **procedure to be followed for forest land** to be diverted for non-forestry uses such as road construction, highway development, railway lines, and mining.

Aim of FCA: The broad aims of the Forest Conservation Act are

- To protect forests and wildlife
- Dissuade State governments' attempts to divert forest land for commercial projects
- Increase the area under forests.

Rules :

- **States to ask central government permission:** For forest land beyond **five hectares**, approval for diverting land must be given by the Central government. This is via a specially constituted committee, called the **Forest Advisory Committee (FAC)**.
- **It scrutinises the project and ensures that-** the felling of trees and denuding of the local landscape – will be minimal and the said piece of land doesn't cause damage to wildlife habitat.
- **States to ensure rights under FRA 2006:** Once the FAC is convinced and approves (or rejects a proposal), it is forwarded to the concerned State government where the land is located, which then has to ensure that

provisions of the Forest Right Act, 2006, a separate Act that protects the rights of forest dwellers and tribals over their land, are complied with.

- **Compensation:** The FAC approval also means that the future users of the land must provide compensatory land for afforestation as well as pay the net present value (ranging between ₹10-15 lakh per hectare.)

Changes made:

The latest version of the rules, which consolidates changes to the Act over the years from various amendments and court rulings, was made public in **June 2022**.

- **Allows Private plantations:** The rules make a provision for private parties to cultivate plantations and sell them as land to companies who need to meet compensatory forestation targets.
- **No approval is needed for Strategic Projects:** e.g. strategic and security projects of national importance
- **Allows building in Forests:** Right to construct structures for bonafide purposes including forest protection measures and residential units (up to an area of 250 sq meters as one-time relaxation).

How well has the Forest Conservation Act (FCA) been implemented so far?

- **Poor implementation:** A 2019 analysis by the Legal Initiative for Forests and Environment has found that the FAC **generally approves land for diversion without examining questions** around consent as it relies on the State government to ensure that this is done.

Concern: The rules allowed forest land to be diverted to industry without settling questions about the rights of forest dwellers and tribals who resided on those lands.

30. GST Slab Changes

Customers will have to pay a 5% Goods and Services Tax (GST) on pre-packed, labelled food items such as atta, paneer and curd, besides hospital rooms with rents above ₹5,000.

GST

- GST launched in India on 1 July 2017 is a **comprehensive indirect tax** for the entire country.

- It is charged at the time of supply and **depends on the destination** of consumption.
- For instance, if a good is manufactured in state A but consumed in state B, then the revenue generated through GST collection is credited to the state of consumption (state B) and not to the state of production (state A).
- GST, being a **consumption-based** tax, resulted in loss of revenue for manufacturing-heavy states.

GST Slabs

- In India, almost 500+ services and over 1300 products fall under the 4 major GST slabs.
- There are **five broad tax rates** of **zero, 5%, 12%, 18% and 28%**, plus a **cess levied** over and above the 28% **on some 'sin' goods**.
- The GST Council periodically revises the items under each slab rate to adjust them according to industry demands and market trends.
- The updated structure ensures that the essential items fall under lower tax brackets, while luxury products and services entail higher GST rates.
- The **28% rate is levied on demerit goods** such as tobacco products, automobiles, and aerated drinks, along with an additional GST compensation cess.

Why rationalize GST slabs?

- From businesses' viewpoint, there are just **too many tax rate slabs**, compounded by aberrations in the duty structure through their supply chains with **some inputs taxed more than the final product**.
- These are far too many rates and **do not necessarily constitute a Good and Simple Tax**.
- **Multiple rate changes** since the introduction of the GST regime in July 2017 have brought the effective GST rate to 11.6% from the original revenue-neutral rate of 15.5%.
- **Merging the 12% and 18% GST rates** into any tax rate lower than 18% **may result in revenue loss**.

31. The impact of Euro-Dollar parity?

The euro and the U.S. dollar reached parity, meaning one dollar could buy one euro in the foreign exchange market.

The issue

- For over two decades, it took more than one U.S. dollar to purchase one euro.
- Just a year ago it took about 1.2 U.S. dollars to purchase one euro.
- Since the beginning of the year the euro has lost about 12% against the U.S. dollar and it is expected to lose more value going forward.

What determines a currency's exchange rate?

- The price of any currency in a market economy is determined by supply and demand.
- The supply of a country's currency in the foreign exchange market is determined by various factors such as central bank policy and the local demand for imports and foreign assets.
- The demand for a country's currency, on the other hand, is determined by factors such as central bank policy and the foreign demand for exports and domestic assets.

Why has the euro fallen against the U.S. dollar?

- The divergence in the monetary policies of the U.S. Federal Reserve and the European Central Bank is the primary reason behind the euro's significant depreciation against the U.S. dollar.
- In response to the economic crisis caused by lockdowns imposed to fight the coronavirus pandemic, both the Federal Reserve and the ECB expanded their balance sheets to boost spending.
- But this soon led to a rise in prices.
- Inflation in the U.S. hit a four-decade high of 9.1% in June while inflation in the Eurozone reached its highest-ever level of 8.6% during the same month.
- The U.S. Federal Reserve responded to the rising prices by raising the interest rates this year in order to slow down U.S. money supply growth.
- The ECB, however, has been far less aggressive in tightening policy even though the inflation rate is as high as 22% in some European countries.
- Europe now has to shell out more euros to import limited energy supplies, which in turn has adversely affected the value of the euro against the U.S. dollar.

Way forward

- As the U.S. Federal Reserve continues to raise interest rates, this is likely to exert further downward pressure on the euro.
- The ECB may be forced to raise interest rates to slow down money supply growth in the Eurozone in order to prop up the value of the euro against the dollar.

- But this is likely to lead to a slowdown in growth in the Eurozone, 19 countries use the currency, as its economy will have to readjust to tighter monetary conditions.
- If so, European nations might opt to enact tax and regulatory reforms to expedite the recovery.

32. India's climate imperative

India still attributes the heatwave in Rajasthan, Uttar Pradesh, Gujarat, and New Delhi to the wrath of Mother Nature rather than acknowledging the anthropogenic global warming.

The issue

- In the absence of COVID-19, climate change-induced disasters would have been India's biggest red alert in recent years.
- The heatwave that scorched Rajasthan, Uttar Pradesh, Gujarat, and New Delhi this year; torrential downpours in south India in 2021; and the super cyclone Amphan that battered West Bengal and Odisha in 2020 are symbols of man-made climate change.
- Temperatures over the Indian Ocean have risen by over 1°C since the 1950s, increasing extreme weather events.
- India is the fourth worst-hit in climate migration.
- India needs a two-part approach: one, to adapt to climate impacts by building resilience against weather extremes, and two, to mitigate environmental destruction to prevent climate change from becoming more lethal.

How climate resilience can be achieved?

- Extreme heat waves hit swathes of India.
- Heatwaves are aggravated by deforestation and land degradation, which also exacerbate fires.
- Agriculture, being water-intensive, does not do well in heat wave-prone areas.
- A solution is to promote agricultural practices which are not water-intensive and to support afforestation that has a salutary effect on warming.
- Financial transfers can be targeted to help farmers' plant trees and buy equipment, for example, for drip irrigation that reduces heavy water usage.
- It is vital to map flood-risk zones to manage vulnerable regions.

- Environment Impact Assessments must be mandatory for commercial projects.
- Kerala has some flood-resistant houses constructed on pillars.
- Communities can build round-shaped houses, considering optimum aerodynamic orientation to reduce the strength of the winds.
- Roofs with multiple slopes can stand well in strong winds, and central shafts reduce wind pressure on the roof by sucking in air from outside.

What is the way forward?

- India's share in disaster management should be raised to 2.5% of GDP.
- Adaptation alone will not slow climate damages if the warming of the sea level temperatures is not confronted.
- A big part of climate action lies in protecting and expanding forest coverage.
- Regulation needs to be tightened and enforced to ensure forest protection while acquiring land.
- For public pressure to drive climate action, we need to consider climate catastrophes as largely man-made.

33. The Financial Services Institutions Bureau (FSIB)

The Financial Services Institutions Bureau (FSIB), which will replace the Banks Board Bureau (BBB), will be more than a headhunter to fill in critical posts at state-run banks, insurers, and other financial institutions (FIs).

Financial Services Institutions Bureau (FSIB)

- It's a government body set up under the Department of Financial Services.
- The board will be entrusted with making recommendations for the appointment of full-time directors and non-executive chairman of state-run financial services institutions.
- It would also issue guidelines for selecting general managers and directors of public sector general insurance companies.
- While its main task is to play the role of head-hunter for the state-owned financial services entities, the board will also be involved in formulating and developing business strategies for state-run banks and help them in their fund-raising plans.

Why has it replaced Banks Board Bureau (BBB)?

- The BBB was declared an incompetent authority last year by the Delhi High Court.
- A general manager at state-owned National Insurance Company challenged the appointment of a person junior to him for the Director's position by the BBB.
- Consequent to the order, 10–11 directors appointed by the BBB had to vacate office.
- To end this logjam, the BBB had to be struck down and a new body, namely, FSIB had to be put in place vide approval from the Appointments Committee of the Cabinet, headed by the prime minister.

How critical is the role of FSIB?

- When BBB was brought into action, there was consolidation within public sector banks, first with Bank of Baroda in 2018 and then a year later with 10 PSU banks.
- Again, there could be another round of bank mergers and privatization of both banks and insurance companies.
- The criticism often surfacing is whether PSU entities are ready to withstand the test of privatization from an operations and management perspective, which has a deep nexus with the efficiencies of the workforce at all layers.

What is the way forward?

- With FSIB, the intent is to go beyond the man-manager role and assist the government in formulating a code of conduct and ethics for whole-time directors in these entities.
- The FSIB aims to prevent red tape and promote people based on merit.
- The silent mandate of FSIB would be to ready banks and insurance companies for the privatization process and undertake the necessary clean-up/HR upliftment practices.

34. What are Tetrapods

In Mumbai, the unusual vibrations (like earthquakes), coinciding with high-tide times, were the result of the relocation of tetrapods as part of the ongoing Coastal Road Project (MCRP).

What are tetrapods?

- Tetra pod in Greek means four-legged.
- These are four-legged concrete structures that are placed along coastlines to prevent erosion and water damage.

- Tetrapods were first used in France in the late 1940s to protect the shore from the sea.
- They are typically placed together to form an interlocking but porous barrier that dissipates the power of waves and currents.
- These are large structures, sometimes weighing up to 10 tonnes, and interlocked tetrapods act as a barrier that remains stable against the rocks when buffeted by waves.
- Tetrapods, each weighing about 2 tonnes, were placed along Marine Drive in the late 1990s to break and dissipate waves and maintain the reclaimed shoreline in South Mumbai.

How do we know that the removal of the tetrapods was responsible?

- The BMC has provided vibration monitoring instruments at the site to study the impact of the phenomenon.
- While the corporation has not officially stated that the removal of the tetrapods caused the vibrations, it has agreed to re-install the structures.
- They would be put back over the next two-three days during low tide.

35. Heat Waves across the Europe

The UK posted its highest temperature ever recorded – crossing 40°C. Parts of France, Spain and Portugal recorded temperatures between 42 and 46 degrees.

Why in news?

- Dozens of towns and regions across Europe reeled under what has been described as a “heat apocalypse”, which has caused widespread devastation this year.
- Wildfires caused by a combination of extreme heat and dry weather have destroyed 19,000 hectares of forest in southwestern France.

What is a Heatwave and when is it declared?

- Heatwaves occur over India between March and June.
- IMD declares a heatwave event when the maximum (day) temperature for a location in the plains crosses 40 degrees Celsius.
- Over the hills, the threshold temperature is 30 degrees Celsius.

How are they formed?

- Heatwaves form when high pressure aloft (3,000–7,600 metres) strengthens and remains over a region for several days up to several weeks.

- This is common in summer (in both Northern and Southern Hemispheres) as the jet stream 'follows the sun'.
- On the equator side of the jet stream, in the upper layers of the atmosphere, is the high pressure area.
- Summertime weather patterns are generally slower to change than in winter. As a result, this upper level high pressure also moves slowly.
- Under high pressure, the air subsides (sinks) toward the surface, warming and drying adiabatically, inhibiting convection and preventing the formation of clouds.
- Reduction of clouds increases shortwave radiation reaching the surface.
- A low pressure at the surface leads to surface wind from lower latitudes that brings warm air, enhancing the warming.
- Alternatively, the surface winds could blow from the hot continental interior towards the coastal zone, leading to heat waves.

Following criteria are used to declare a heatwave:

To declare heatwave, the below criteria should be met at least in 2 stations in a Meteorological subdivision for at least two consecutive days and it will be declared on the second day.

a) Based on Departure from Normal

- **Heat Wave:** Departure from normal is 4.5°C to 6.4°C
- **Severe Heat Wave:** Departure from normal is $>6.4^{\circ}\text{C}$

b) Based on Actual Maximum Temperature (for plains only)

- **Heat Wave:** When actual maximum temperature $\geq 45^{\circ}\text{C}$
- **Severe Heat Wave:** When actual maximum temperature $\geq 47^{\circ}\text{C}$

How long can a heatwave spell last?

- A heatwave spell generally lasts for a **minimum of four days**.
- On some occasions, it can **extend up to seven or ten days**.

Impact of Heat Waves

- **Heat Strokes:** The very high temperatures or humid conditions pose an elevated risk of heat stroke or heat exhaustion.
- **Healthcare crisis:** Effects from extreme heat are also associated with increased hospitalisations and emergency room visits, increased deaths from cardio-respiratory and other diseases, mental health issues, adverse pregnancy and birth outcomes, etc.

- **Productivity loss:** Extreme heat also lessens worker productivity, especially among the more than 1 billion workers who are exposed to high heat on a regular basis.
- **Risk of Wildfires:** The heat domes act as fuel to wildfires, which destroys a lot of land area every year in countries like the US.
- **Prevents Cloud Formation:** The condition also prevents clouds from forming, **allowing for more radiation from the sun to hit the ground.**
- **Effect on Vegetation:** The trapping of heat can also damage crops, dry out vegetation and result in
- **Increased Energy Demands:** The sweltering heat wave also **leads to rise in energy demand**, especially electricity, leading to pushing up rates.
- **Power Related Issues:** Heat waves are often **high mortality disasters.**
- **Infrastructure failure:** Avoiding heat-related disasters depends on the resilience of the electrical grid, which can fail if electricity demand due to air conditioning use exceeds supply.

36. Rupee's Depreciation

The Indian rupee is experiencing its worst slump in four years. Since the start of 2022, the currency has depreciated by more than 7% against the U.S. dollar, weakening past a historic low of 80 to a dollar mark earlier this week.

Is India alone in this?

- The Indian currency is not alone in faring poorly against the dollar bill (greenback).
- Even the historically strong euro and the British pound are taking a hammering and weakening by more than the rupee has.
- The fact that other currencies too have appreciably lost value against the dollar can only offer cold comfort to India's real economy.

Impacts of the depreciation

- Domestic manufacturers and services providers must now cope with higher dollar prices for the raw materials, equipment or other supplies.
- They may also need to procure from overseas, in the wake of the supply disruptions caused by the pandemic and the war in Ukraine.
- But they also face mounting import bills - the slide means they have to fork out more rupees for the same dollar price from even just a few months ago.

Different sectors be impacted by the depreciation

- **IT Sector** - IT companies are the biggest gainers as they bill most clients in US dollars. Americas, including the US, contribute about 50-60% of revenue.
- Their rupee earnings rise as the Indian currency falls.
- **Pharma Sector** - A net gainer sector as it's a big exporter though raw materials are substantial imports.
- In FY22, India exported \$24.62 b worth of products, of which about 30% is to the US. Raw material imports were about \$4-5 billion.
- **Garments Sector** to benefit given the significant exports and most input costs are locally sourced.
- **Oil & Gas Sector** - The most adversely impacted sector as India imports over 85% of oil and half of the gas it consumes.
- **Renewable energy** - Indian solar plants depend heavily on imported solar cells and modules. So, project costs would rise.
- **Steel** - India exports 10-15% of its steel. The depreciation will make Indian steel more competitive globally.
- Balances the impact of the recent export duty on steel
- **Auto** - About 10-20% of a car's total raw materials by value are imported but firms also export vehicles. The depreciation will make cars, in general, more expensive
- Exact impact will depend on inputs purchased and level of exports.
- **FMCG** - Raw material imports account for nearly half of input cost.
- The depreciation will make prices hike to offset higher input costs.
- Margins may be impacted as full pass-through hasn't happened.

What does the REER of Rupee say?

- The rupee's real effective exchange rate (REER) provides a weighted average value in relation to a basket of currencies of its major trading partners.
- It is also signalling that the Indian currency is still overvalued and has room to depreciate further.
- The RBI will need to judiciously utilise every dollar in its foreign exchange reserves to ensure that a likely slowdown in exports and sticky imports do not add more undue pressure on the rupee.

37. A new global standard for AI ethics

Artificial intelligence (AI) is more present in our lives than ever. From predicting what we want to see as we scroll through social media to helping us understand weather patterns to manage agriculture, AI is ubiquitous.

Issues with AI and why it matters to India

- **Bias and discrimination:** The **data used to feed into AI** often aren't representative of the **diversity of our societies**, producing outcomes that can be said to be biased or discriminatory.
- **Errors in facial recognition:** There are problems emerging in facial recognition technologies, which are used to access our phones, bank accounts and apartments, and are increasingly employed by law-enforcement authorities, in identifying women and darker-skinned people.
- For three such programs released by major technology companies, the error rate was 1% for light-skinned men, but 19% for dark-skinned men, and up to 35% for dark-skinned women.
- Biases in facial recognition technologies have led to wrongful arrests.
- Indeed, if the business model of how these technologies are developed does not change to place human interests first, **inequalities will grow** to a magnitude never before experienced in history; access to the raw material that is data is key.
- These issues are of particular importance to India, which is one of the world's largest markets for AI-related technologies, valued at over \$7.8 billion in 2021.
- **The National Strategy on Artificial Intelligence** released by NITI Aayog in 2018 highlights the massive potential of AI in solving complex social challenges faced by Indian citizens across areas such as **agriculture, health, and education, in addition to the significant economic returns** that AI-related technologies are already creating.

UNESCO agreement

- To ensure that the full potential of these technologies is reached, the right incentives for **ethical AI governance** need to be established in national and sub-national policy.
- India has made great strides in the development of responsible and ethical AI governance, starting with **NITI Aayog's #AIForAll campaign** to the many corporate strategies that have been adopted to ensure that AI is developed with common, humanistic values at its core.
- **UNESCO's recommendations:** Last November 193 countries reached a groundbreaking agreement at UNESCO on how AI should be designed and used by governments and tech companies.
- UNESCO's **Recommendation on the Ethics of Artificial Intelligence** took two years to put together and involved thousands of online consultations with people from a diverse range of social groups.
- It aims to fundamentally shift the balance of power between people, and the businesses and governments developing AI.

- Countries which are members of UNESCO have agreed to implement this recommendation by enacting actions to regulate the entire AI system life cycle, ranging from research, design and development to deployment and use.
- Finland provides an example of good practice of this regard, with its 2017 AI Strategy.

Conclusion

The new agreement is broad and ambitious. It is a recognition that AI-related technologies cannot continue to operate without a common rulebook. Over the coming months and years, the Recommendation will serve as a compass to guide governments and companies, to voluntarily develop and deploy AI technologies that conform with the commonly agreed principles it establishes.

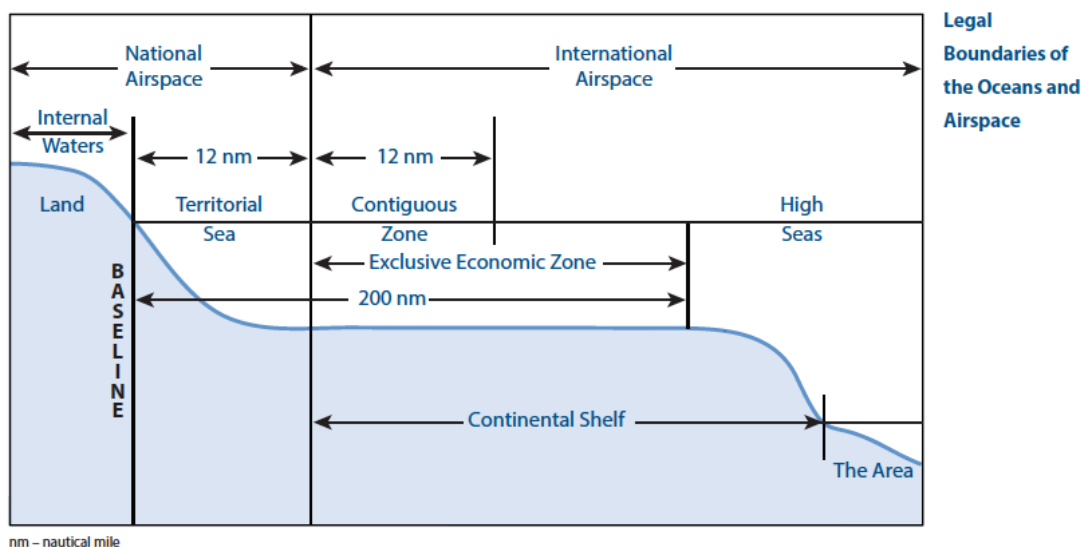
38. Anti-Maritime Piracy Bill 2019

The Anti-Maritime Piracy Bill, 2019 has been listed for consideration and passing during the Monsoon session of the Parliament.

Anti-Maritime Piracy Bill

India currently does not have legislation on matters of piracy on the high seas.

- Once enacted, the Anti-Maritime Piracy Bill will bring into domestic law the UN Convention on the Law of the Sea (UNCLOS), which India ratified in 1995.
- This enactment will enable Indian authorities to take **action against piracy on the high seas**.
- The Anti-Maritime Piracy Bill defines piracy as an act of violence or detention by the crew or passengers of a private vessel or private aircraft on high seas, directed against another vessel or aircraft and/or people or property on board.
- The Bill will apply to the sea beyond the Exclusive Economic Zone (EEZ), that is, beyond 200 nautical miles from India's coastline.
- It is unclear if it will apply in the EEZ that extends between 12 nautical miles and 200 nautical miles from the coast of India.



UN Convention on the Law of the Sea

- The UN Convention on the Law of the Sea (UNCLOS) 1982 is a set of rules to govern the oceans and the use of their resources.
- The UNCLOS governs all aspects of ocean space, including delimitation, environmental control, marine scientific research, economic and commercial activities, transfer of technology and the settlement of ocean-related disputes.
- To deal with incidents of piracy on the high seas, UNCLOS says that member States are allowed to seize a pirate ship or aircraft or a vessel that has been captured by pirates, and arrest the persons involved and seize the property on board.

39. What is the Controversy over GST levies on Food?

From July 18, a 5% Goods and Services Tax (GST) has been levied on several food items and grains that are sold in a pre-packed, labelled form even if they are not branded.

In news

- So far, these items, which include curd, lassi, buttermilk, puffed rice, wheat, pulses, oats, maize and flour, were exempted from the GST net.
- The fresh tax levies have attracted an outcry from traders as well as consumers.

GST

- GST launched in India on 1 July 2017 is a **comprehensive indirect tax** for the entire country.
- It is charged at the time of supply and **depends on the destination** of consumption.
- For instance, if a good is manufactured in state A but consumed in state B, then the revenue generated through GST collection is credited to the state of consumption (state B) and not to the state of production (state A).
- GST, being a **consumption-based** tax, resulted in loss of revenue for manufacturing-heavy states.

GST Slabs

- In India, almost 500+ services and over 1300 products fall under the 4 major GST slabs.
- There are **five broad tax rates** of **zero, 5%, 12%, 18%** and **28%**, plus a **cess levied** over and above the 28% **on some 'sin' goods**.
- The GST Council periodically revises the items under each slab rate to adjust them according to industry demands and market trends.
- The updated structure ensures that the essential items fall under lower tax brackets, while luxury products and services entail higher GST rates.
- The **28% rate is levied on demerit goods** such as tobacco products, automobiles, and aerated drinks, along with an additional GST compensation cess.

How did the rate hikes come about?

- The 5% tax on unbranded packed food items was approved by the GST Council.
- Some of the other items to have lost their tax-exempt status include bank cheques, maps and atlases, hotel rooms that cost up to ₹1,000 a night, and hospital room rents of over ₹5,000 a day.
- The pre-packed items weighing over 25 kg would not attract GST.

What has the government said on the issue?

- FM has hit out at misconceptions about the GST levies on food items and dismissed suggestions that they were imposed unilaterally by the Centre.
- The 5% levy, she said, was critical to curb tax leakages and was not taken by 'one member' of the GST Council alone as all States had agreed to the move.
- When GST was rolled out, a GST rate of 5% was made applicable on branded cereals, pulses, flour.

- This was later amended to tax only such items which were sold under a registered brand or brands on which enforceable right was not foregone by the suppliers.
- This tax exemption triggered 'rampant misuse' by reputed manufacturers and brand owners leading to a gradual drop in revenues.

40. Swadesh Darshan 2.0 (SD2.0)

In News: The Ministry of Tourism has revamped its Swadesh Darshan scheme as Swadesh Darshan 2.0 (SD2.0)

- It aims to develop **sustainable and responsible destinations** with **tourist & destination centric approach** and has shared the guidelines for SD2.0 scheme.
- The Ministry of Tourism under its schemes of 'Swadesh Darshan' and 'PRASHAD' provides **financial assistance to State Governments/Union Territory (UT) Administrations/Central Agencies** etc. for **development of tourism infrastructure in the country**.
- The projects under this scheme are sanctioned subject to availability of funds, submission of suitable Detailed Project Reports (DPR), adherence to scheme guidelines and utilization of funds released earlier etc.

Swadesh Darshan

- Swadesh Darshan, a **Central Sector Scheme**, was launched in 2014 -15 for **integrated development of theme based tourist circuits in the country**.
- This scheme is **envisioned to synergise with other schemes like Swachh Bharat Abhiyan, Skill India, and Make in India**
- Under the scheme, the Ministry of Tourism provides **Central Financial Assistance (CFA)** to State Governments/Union Territory Administrations for **infrastructure development of circuits**.
- One of the objectives of the scheme is to **develop theme-based tourist circuits** on the principles of **high tourist value, competitiveness and sustainability in an integrated manner**.

PRASHAD Scheme

- The '**National Mission on Pilgrimage Rejuvenation and Spiritual Augmentation Drive (PRASAD)**' was launched by the Ministry of Tourism in the year **2014-15** with the **objective of holistic development of identified pilgrimage destinations**.
- The projects identified under this scheme shall **be implemented through the identified agencies by the respective State/ Union Territory Government**.

Objective:

- Rejuvenation and spiritual augmentation of important national/ global pilgrimage and heritage sites
- Follow community-based development and create awareness among the local communities.
- Integrated tourism development of heritage city, local arts, culture, handicrafts, cuisine, etc., to generate livelihood
- Strengthen the mechanism for bridging the infrastructural gaps.

Funding:

- Under it, the **Ministry of Tourism provides Central Financial Assistance (CFA)** to State Governments for promoting tourism at identified destinations.
- **For components within public funding under this scheme, the Central Government will provide a 100% fund.**
- For improved sustainability of the project, it also seeks to **involve Public Private Partnership (PPP) and Corporate Social Responsibility (CSR)** as well.