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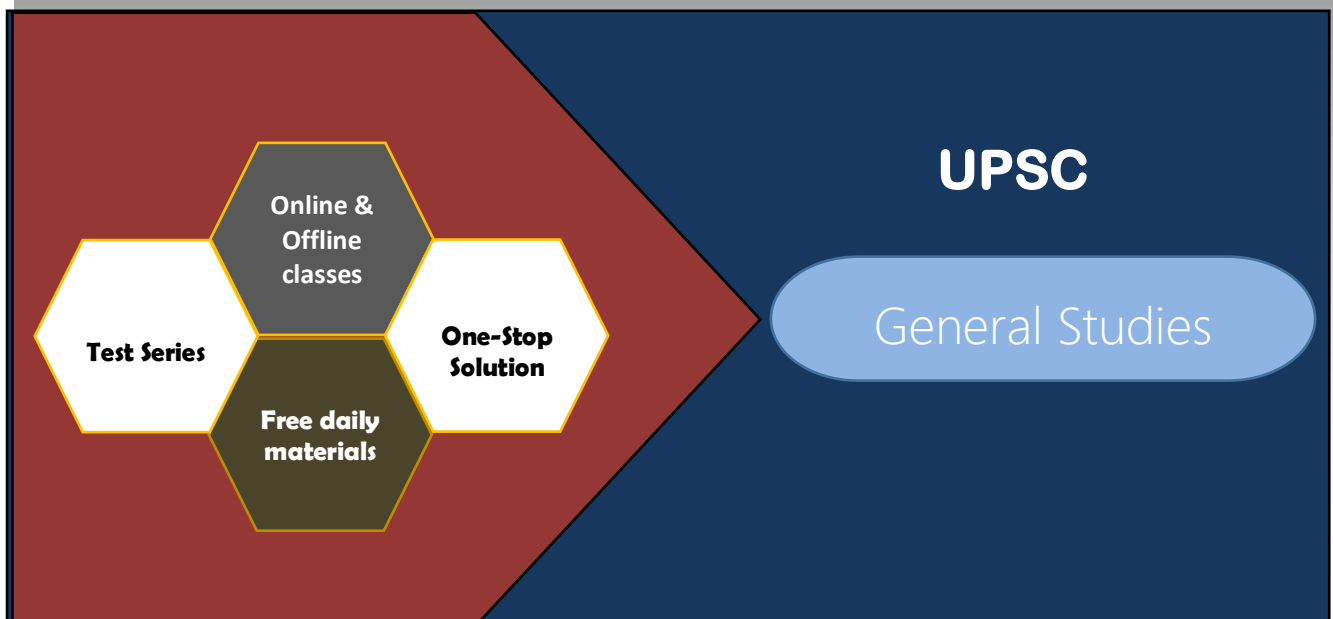
Monthly current affairs magazine

CURRENT AFFAIRS

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THE HINDU & INDIAN EXPRESS**



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GS 2 : Polity, Governance, International Relations

1. Tamil Nadu legislature turns 100

The Assembly chambers at Fort St. George, the 17th-century vestige of the colonial era, and Tamil Nadu's seat of power have completed 100 years of existence.

Tamil Nadu Elections

- Tamil Nadu witnessed elections in November 1920 as a result of the Montagu-Chelmsford Report and the Government of India Act of 1919.
- The electors included only men, accounting for just 3% of the population.
- The concept of dyarchy came into being with Ministers, who were Indians, gaining limited control over certain subjects, such as local self-government and education.
- It was then that the office of the Chief Minister, also called Premier, got instituted.

Works accomplished

- **Reservations in public employment:** For the first time, caste became the basis for appointment to public services. It took over 70 years for the Central government to follow the principle in its institutions for education and employment.
- **Above 50% cap in reservation:** In December 1993, the scheme of 69% reservation for Backward Classes, Most Backward Classes, SCs and STs got legal safeguard. The law was subsequently included in the IX Schedule of the Constitution, through an amendment passed in Parliament, so that its validity could not be challenged.

Facts

- **Women's suffrage:** In early 1927, Muthulakshmi Reddy, the well-known medical practitioner and social activist, became the first woman member of the Council and, in no time, became the Deputy President of the Council.
- **Gopuram as an emblem:** The symbol features a 'gopuram' (temple tower) – characteristic of south Indian temples has been adopted as the state emblem.
- **Change of name:** During the two-year rule of the DMK founder C.N. Annadurai, the Assembly, in July 1967, adopted a motion renaming Madras State as Tamil Nadu, which later got the approval of Parliament.

- **Social reforms:** It has passed several landmark laws for the welfare of women, such as Devadasi abolition, equal rights to women in property and the constitution of the State Commission for Women.

2. India set to take over as President of the UNSC

India will take over the Presidency of the UN Security Council on August 1 and is set to host signature events in three major areas of maritime security, peacekeeping, and counterterrorism during the month.

Key agendas

During its Presidency, India will be organizing high-level signature events in three major areas:

- Maritime security
- Peacekeeping and
- Counterterrorism

About UNSC

- The UNSC is one of the six principal organs of the United Nations and is charged with the maintenance of international peace and security.
- Its powers include the establishment of peacekeeping operations, the establishment of international sanctions, and the authorization of military action through Security Council resolutions.
- It is the only UN body with the authority to issue binding resolutions to member states.
- The Security Council consists of fifteen members. Russia, the United Kingdom, France, China, and the United States – serve as the body's five permanent members (P5).
- These permanent members can veto any substantive Security Council resolution, including those on the admission of new member states or candidates for Secretary-General.
- The Security Council also has 10 non-permanent members, elected on a regional basis to serve two-year terms. The body's presidency rotates monthly among its members.

Issues with UNSC

(1) Non-representative

- UNSC in its current form is not representative of the developing world and global needs – with the primacy of policy being a political tool in hands of P5.
- By 1992, India, Brazil, Germany, and Japan (referred as G4) had put up their claims and logic for demanding inclusion as permanent members.
- India has been part of UN since its inception and has contributed maximum peacekeepers to UN so far, has a strong case.
- Brazil is the largest country in Latin America (unrepresented continent) and fifth-largest in the world. Japan and Germany are one of the largest financial donors to UN.

(2) Rivalry with G4

- The pitch for reforms of G4 was lowered by their regional rivals like Italy, Pakistan, Mexico and Egypt.
- They started formulation of another interest group, known to be “Uniting for Consensus” opposing G4 becoming permanent members with veto power.

(3) Rigid framework

- Reforms in the UNSC also require an amendment to the UN charter, in accordance with Article 108.
- This highlights that any reform of the Security Council not only requires the support of at least two-thirds of UN member states but also all the permanent members.

(4) Veto power

- The stance of P5 members to expansion has been varying as per their national interest, like most P5 members agree to Indian inclusion, except China.
- It becomes obvious that even if one member of P5 doesn't agree to any reform, the UNSC cannot be reformed.
- There have been many proposals since its inception from totally abolishing veto power to selectively using it for vital national security issues.

(5) No consensus

- It has been seen in past that the UNSC, in some of the major global security issues, could not arrive at a consensus and interventions that happened by countries mainly from P5 without UNSC resolution.

- US entry in Iraq war or Warsaw Pact war in Afghanistan are few cases in point.
- The UNSC has thus become an organization, which can pass strong resolutions against weak countries, weak resolutions against strong countries and no resolution against P5 countries.

Suggested reforms

- **Expansion:** Besides the existing P5 members, an expansion of UNSC from five to 10 permanent members, with the addition of G4 and South Africa. This will provide equitable regional representation besides balancing the developing and developed world to meet the aspirations of humanity.
- **Abolition of veto:** The expansion of P5 without veto power makes very little impact on the problems, because of which the reforms are required. Ideally the veto power should be abolished.

Will UNSC reforms ever happen?

- Under the given charter, articles and structures, there is very little hope for UNSC reforms in near future.
- The lack of reforms can push the credibility crisis of UN to a degree that it becomes unsustainable for it to function, or incidences of side-lining the UN increase manifold.
- If the UNSC does not appoint new permanent members then its primacy may be challenged by some of the new emerging countries.
- There is also a possibility that if UN doesn't reform itself, it may lose relevance and alternate global and regional groupings may assume greater importance.
- No P5 member is likely to compromise this power in its own national interest, which is generally prioritized before global interest, thus making the reformation process a mirage.

3. 'Ashwagandha' in Covid-19 Recovery

In News

Recently, **India and the UK** have collaborated to conduct a **study on 'Ashwagandha (AG)' for promoting recovery from Covid-19.**

- After the **trial's success**, **'Ashwagandha'** will be a **proven medicinal treatment** to prevent infection and be recognised by the **scientific community worldwide.**
- This is the **first time that the Ministry of Ayush** has collaborated with a **foreign institution to investigate its efficacy on Covid-19 patients.**

Key Points

- **About Ashwagandha:**
 - Ashwagandha (**Withania somnifera**) is a medicinal herb. It is reputed as an immunity enhancer.
 - It is classified as an **adaptogen**, which means that it can **help the body to manage stress**.
 - Ashwagandha also boosts brain function and lowers blood sugar and helps fight symptoms of anxiety and depression.
 - Ashwagandha has shown clinical success in **treating both acute and chronic rheumatoid arthritis**.
 - **Rheumatoid arthritis (RA)** is an autoimmune disease that can **cause joint pain and damage throughout your body**.
 - An autoimmune disease is a condition in which your immune system mistakenly attacks your body.
- **Potential of Ashwagandha:**
 - The study suggests Ashwagandha as a potential therapeutic candidate for **alleviating the long-term symptoms of Covid-19**.
 - Recently, a number of **randomised placebo-controlled trials** of AG in humans in India had demonstrated its efficacy in reducing anxiety and stress, improving muscle strength and reducing symptoms of fatigue in patients treated for chronic conditions.
 - A randomized controlled trial is a prospective, comparative, quantitative study/experiment performed under controlled conditions with random allocation of interventions to comparison groups.
- **Clinical Trials:**
 - Clinical trials in humans are classified into three phases: **phase I, phase II and phase III** and in certain countries formal regulatory approval is required to undertake any of these studies.
 - The **phase I clinical studies** carry out **initial testing of a vaccine in small numbers (e.g. 20) of healthy adults**, to test the properties of a vaccine, its tolerability, and, if appropriate, clinical laboratory and pharmacological parameters. Phase I studies are primarily concerned with safety.
 - **Phase II studies involve larger numbers of subjects** and are intended to provide preliminary information about a vaccine's ability to produce its desired effect (usually immunogenicity) in the target population and its general safety.
 - **Extensive phase III** trials are required to fully assess the protective efficacy and safety of a vaccine. The phase III clinical trial is the pivotal study on which the decision on whether to grant the licence is based and sufficient data have to be obtained

to demonstrate that a new product is safe and effective for the purpose intended.

4. Provincial Status to Gilgit-Baltistan: Pakistan

In News

Recently, it has been reported that, Pakistani authorities have finalised a law (**26th Constitutional Amendment Bill**), to award **provisional provincial status to strategically located Gilgit-Baltistan**.

Key Points

- **About Gilgit-Baltistan:**
 - Gilgit-Baltistan is one of the **disputed territories** of India.
 - It is a chunk of **high-altitude territory** located on the **north western corner of the Union Territory of Ladakh**.
 - It is located strategically as it **borders Pakistan, Afghanistan and China**.
- **Background of Gilgit-Baltistan Dispute:**
 - The region is **claimed by India as part of the erstwhile princely state of Jammu & Kashmir** as it existed in 1947 at its accession to India.
 - **Maharaja Hari Singh**, the last Dogra ruler of J&K, had signed the Instrument of Accession with India on 26th October 1947.
 - However, it has been under **Pakistan's control since 4th November, 1947**, following the **invasion of Kashmir by tribal militias** and the Pakistan army.
 - Following this invasion, India moved to the **United Nations Security Council** to raise the issue of Pakistan's invasion, on 1st January 1948.
 - The UN Security Council passed a resolution:
 - Calling for **Pakistan to withdraw from all of Jammu and Kashmir** and then **India had to reduce its forces to the minimum level** following which a **plebiscite** would be held to ascertain people's wishes.
 - However, **no withdrawal** was ever carried out and it remains a point of contention between two countries.
- **Current Status:**
 - Gilgit-Baltistan is an **autonomous region** now and after the bill is passed, it will become the **5th province of the country**.
 - Currently, Pakistan has four provinces namely Balochistan, Khyber Pakhtunkhwa, Punjab, and Sindh.
 - Presently, it has been ruled mostly by **executive orders**.
 - Until 2009, the region was simply called **Northern Areas**.

- It got its present name only with the **Gilgit-Baltistan (Empowerment and Self-Governance) Order, 2009**, which replaced the Northern Areas Legislative Council with the Legislative Assembly.
- **Reasons for Making Gilgit-Baltistan a Province:**
 - Gilgit-Baltistan is the northernmost territory administered by Pakistan. It is **Pakistan's only territorial frontier, and thus a land route, with China.**
 - The Gilgit-Baltistan region is at the centre of the USD 65 billion **China Pakistan Economic Corridor (CPEC)** Infrastructure development plan.
 - The CPEC has made the region vital for both countries. The CPEC, which connects Gwadar Port in Pakistan's Balochistan with China's Xinjiang province, is the flagship project of China's ambitious multi-billion-dollar **Belt and Road Initiative (BRI)**.
 - Some experts on India-Pakistan relations also assert that Pakistan's decision might have come from India's reassertion of its claims after the 5th August, 2019 **reorganisation of Jammu & Kashmir.**
- **India's Stand:**
 - India maintains the Government of Pakistan or its judiciary has no locus standi on territories illegally and forcibly occupied by it.
 - India has clearly conveyed to Pakistan that the entire Union Territories of Jammu and Kashmir and Ladakh, including the areas of Gilgit and Baltistan, are an integral part of the country by virtue of its fully legal and irrevocable accession.
 - India has protested to China over the CPEC as it is being laid through Pakistan-occupied Kashmir.

5. Surveillance and human rights

In News

The Pegasus revelations reflect an attack on Indian democracy and Indian citizens.

Role of government in protecting the fundamental and human rights of citizens

- The surveillance of the target group in India through Pegasus raises doubts about the functioning of democracy in India.
- **Constitutional duty of government:** The government has a constitutional duty to protect the fundamental and human rights of its citizens, irrespective of who they are.
- There is clear evidence that the **rule of law has been undermined.**
- More evidently, this reflects extremely **poor governance.**

- The Intelligence Bureau, the Research and Analysis Wing, and the National Security Council Secretariat should have forewarned the government and citizens against such surveillance **seriously violating privacy and fundamental rights.**
- The Supreme Court, in **K.S. Puttaswamy v. Union of India (2017)**, declared privacy a constitutionally protected value.

Violation of human rights

- India is a signatory to the **Universal Declaration of Human Rights.**
- **Article 12** provides that everyone has the right to the protection of the law against arbitrary interference with his privacy, family, home or correspondence.
- **The International Covenant on Civil and Political Rights**, also signed by India, in Article 17 states, “No one shall be subjected to arbitrary or unlawful interference with his privacy, family, home or correspondence, nor to unlawful attacks on his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks.”
- In K.S. Puttaswamy, the Supreme Court noted India’s commitments under international law and held that by virtue of **Article 51** of the Constitution, India has to endeavour to “foster respect for international law and treaty obligations...”
- **The Protection of Human Rights Act, 1993** is a fallout of this commitment.

Recommendations on digital communication technologies

- The annual report of the **United Nations High Commissioner for Human Rights (UNHCHR) in 2014** made recommendations on “digital communications technologies”.
- **Judicial oversight:** The UNHCHR report stated, judicial involvement that meets international standards can help to make it more likely that the overall **statutory regime will meet the minimum standards** that international human rights law requires.
- At the same time, the report stated that judicial involvement in oversight should not be viewed as a panacea.
- **Independent body:** The report also recommended an **independent oversight body** to keep checks.
- **Effective remedy to victim:** The International Covenant on Civil and Political Rights requires states parties to ensure that victims of violations of the Covenant have an effective remedy.
- **Role of business:** The report also dealt with the role of businesses and stated that when a state requires that an information and communications

technology company provide user data, it can only supply it in respect of legitimate reasons.

- Earlier, due to concerns of member states, the General Assembly adopted **Resolution 68/167** affirming that **rights held by people offline must also be protected online**.
- The resolution also called upon all states to respect and protect the right to privacy, including in digital communication.

Conclusion

Indians have a right to call upon NSO to terminate the agreement, if any, with the Indian government or any private player and to cooperate with citizens to unravel the truth.

6. Preventive detention a necessary evil: Supreme Court

Preventive detention, the dreaded power of the State to restrain a person without trial, could be used only to prevent public disorder, the Supreme Court held in a judgment.

Preventive Detention?

- Preventive detention means detaining a person so that to prevent that person from committing on any possible crime.
- In other words, preventive detention is an action taken by the administration on the grounds of the suspicion that some wrong actions may be done by the person concerned which will be prejudicial to the state.

PD in India

A police officer can arrest an individual without orders from a Magistrate and without any warrant if he gets any information that such an individual can commit any offense.

- **Preventive Detention Law, 1950:** According to this law any person could be arrested and detained if his freedom would endanger the security of the country, foreign relations, public interests, or otherwise necessary for the country.
- **Unlawful Activities Prevention Act (UAPA) 1968:** Within the ambit of UAPA law the Indian State could declare any organization illegal and could imprison anyone for interrogation if the said organization or person critiqued/questioned Indian sovereignty territorially.

Difference between preventive detention and an arrest?

- An 'arrest' is done when a person is charged with a crime.
- In the case of preventive detention, a person is detained as he/she is simply restricted from doing something that might deteriorate the law-and-order situation.
- Article 22 of the Indian Constitution provides protection against arrest and detention in certain cases.

Rights of an Arrested Person in India

A/c to Article 22(1) and 22(2) of the Indian constitution:

- A person cannot be arrested and detained without being informed why he is being arrested.
- A person who is arrested cannot be denied to be defended by a legal practitioner of his choice. This means that the arrested person has right to hire a legal practitioner to defend himself/ herself.
- Every person who has been arrested would be produced before the nearest magistrate within 24 hours.
- The custody of the detained person cannot be beyond the said period by the authority of magistrate.

Exceptions for Preventive Detention

Article 22(3) says that the above safeguards are not available to the following:

- If the person is at the time being an enemy alien
- If the person is arrested under certain law made for the purpose of "Preventive Detention"

Constitutional provision

- It is extraordinary that the framers of the Indian Constitution, who suffered most because of the Preventive Detention Laws, did not hesitate to give Constitutional sanctity.
- B.R. Ambedkar was of the opinion that the freedom of the individual should not supersede the interests of the state.
- He had also stated that the independence of the country was in a state of infancy and in order to save it, preventive detention was essential.

Issues with preventive detention

- **Arbitrariness:** The police determinations of whether a person poses a threat are not tested at a trial by leading evidence or examined by legally trained persons.
- **Rights violation:** Quiet often, there is no trial (upto 3 months), no periodic review, and no legal assistance for the detained person.
- **Abuse:** It does not provide any procedural protections such as to reduce detainees' vulnerability to torture and discriminatory treatment, and to prevent officials' misusing preventive detention for subversive activities.
- **Tool for suppression:** In the absence of proper safeguards, preventive detention has been misused, particularly against the Dalits and the minorities.

What has the apex court recently rule?

- Preventive detention is a necessary evil only to prevent public disorder.
- The court must ensure that the facts brought before it directly and inevitably lead to harm, danger or alarm, or feeling of insecurity among the general public or any section thereof at large.
- The State should not arbitrarily resort to "preventive detention" to deal with all and sundry "law and order" problems, which could be dealt with by the ordinary laws of the country.
- Whenever an order under a preventive detention law is challenged, one of the questions the court must ask in deciding its legality is: was the ordinary law of the land sufficient to deal with the situation?
- If the answer is in the affirmative, the detention order will be illegal.

Upholding the Article 21

- Preventive detention must fall within the four corners of Article 21 (due process of law) read with Article 22 (safeguards against arbitrary arrest and detention) and the statute in question, Justice Nariman ruled.
- The Liberty of a citizen is a most important right won by our forefathers after long, historical, and arduous struggles.

Conclusion

- The constitutional philosophy of personal liberty is an idealistic view, the curtailment of liberty for reasons of State's security; public order, disruption of national economic discipline, etc.
- They are envisaged as a necessary evil to be administered under strict constitutional restrictions.

- India is a large country and many separatist tendencies against the national security and integrity existed and existing and a strict law is required to counter the subversive activities.
- The number of persons detained in these acts is not a very large and due attention is made before preventive detention.
- Having such kind of acts has a restraining influence on the anti-social and subversive elements.
- The state should have very effective powers to deal with the acts in which the citizens involve in hostile activities, espionage, coercion, terrorism, etc.

7. Halam Sub-tribes Clash

In News

People of Halam sub-tribes, who took refuge in Assam following **clashes with Bru refugees in north Tripura**, are returning to their village Damcherra in North district of Tripura.

- The **Brus came to Tripura in 1997** to escape an ethnic clash in Mizoram and started staying at six relief camps in the North District.

Key Points

- **Halam Sub-tribes:**
 - Ethnically, **Halam communities (categorised as a scheduled tribe in Tripura) belong to the Kuki-Chin tribes of Tibeto-Burmese ethnic group.**
 - Their **language** is also more or less **similar to that of the Tibeto-Burman family.**
 - Halams are also known as **Mila Kuki**, though they are not at all Kukis in terms of language, culture and living style.
 - Halams are divided into **several sub-clans** which are referred to as **"Barki-Halam"**.
 - Major sub-clans of Halams are Koloï, Korbong, Kaipeng, Bong, Sakachep, Thangachep, Molsom, Rupini, Rangkhawl, Chorai, Lankai, Kaireng (Darloug), Ranglong, Marchafang and Saihmar.
 - As per **2011 Census**, their total **population is 57,210 and distributed throughout the State.**
 - Halams live in typical **"Tong Ghar"** specially made of **bamboo and Chan grass**. Apart from plain land cultivation they still practice **Jhum cultivation** and depend on both the activities beside other substitute works.
- **Bru Refugees:**

- **Bru or Reang** is a community **indigenous to Northeast India**, living mostly in **Tripura, Mizoram and Assam**. In **Tripura**, they are recognised as a **Particularly Vulnerable Tribal Group**.
- In **Mizoram**, they have been **targeted by groups** that do not consider them indigenous to the state.
 - In 1997, following ethnic clashes, nearly 37,000 Brus fled Mamit, Kolasib and Lunglei districts of Mizoram and were accommodated in relief camps in Tripura.
 - Damcherra is Tripura's last village before the inter-state boundary with Mizoram.
- Since then, 5,000 have returned to Mizoram in eight phases of repatriation, while 32,000 still live in six relief camps in North Tripura.
- In June **2018**, community leaders from the **Bru** camps **signed an agreement with the Centre and the two state governments**, providing for repatriation in Mizoram. But **most camp residents rejected the terms** of the agreement.
- In January **2020**, the **Centre, the governments of Mizoram and Tripura and leaders of Bru organisations** signed a **quadrupartite agreement**.
 - Under the pact, the Home Ministry has committed to incur the whole expenditure of settlement in Tripura.
 - A package was assured in the accord that each refugee family would get:
 - A plot, fixed deposit of Rs. 4 lakh, free ration and a monthly stipend of Rs. 5,000 for two years.
 - In addition, each family will also be provided Rs. 1.5 lakh to construct a house.
- **Related Issues:**
 - The **northeast has had a history of ethnic conflicts** – not only between the “indigenous” and “settlers” but inter-tribe too – and issues could also arise within smaller sub-groups within the same tribe.
 - The **decision to settle Bru Tribal People in Tripura could also throw up questions of citizenship, specifically in Assam** where a process is on to define who is indigenous and who is not.
 - The move on the Brus **legitimises the settlement of foreigners under Citizenship (Amendment) Act** too, creating conflicts with the indigenous people as well as communities that settled earlier.
 - It could also lead to **loss of space and revenue for other communities in Tripura**.
 - Further, the inter-state border disputes have come under fresh focus after the recent violent clash on **Assam-Mizoram border**.

Way Forward

- Considering the present conditions of Brus, the state government should ensure that the **quadrilateral agreement is enforced in letter and spirit**.
- However, the same agreement which provides for resettlement of Bru refugees in Tripura **should be implemented keeping in mind the interests of non-Brus**, so that no conflict emerges between the Bru and non-Bru communities.

8. We need more creators

The article talks about the need for educators to upgrade their engagement strategies while integrating technology into their approach.

Concerns:

The disruptive nature of digital tools has thrown up interesting challenges to the traditional education system.

Details:

- The National Education Policy (NEP) 2020 has rightfully identified 21st-century skills as fundamental to developing creators.
- Relying on traditional literacy and numeracy alone will not be enough.
- It tends to marginalise differently-abled learners.
- Constant engagement, an emotional connect, and immersive learning are important parts of education.
- Critical thinking and problem solving, communication and collaboration, creativity and innovation, flexibility and adaptability, initiative and self-direction, social and cross-cultural interactions, and productivity and accountability all strengthen the individuals' abilities at the workplace.

Using technology:

- EdTech apps can deliver content that caters to multiple learning styles, learning curves and pace of learning.
- The pandemic has shown that traditional teacher and brick-and-mortar schools may become obsolete if radical pedagogical changes are not made.

Issues:

- With the pandemic shutting down schools, children have lost all personal contact with their social group and parents are forced to rely upon technology to provide their children constant gratification to keep them engaged.

- Over-reliance on technology comes at a cost.
- Technology tools are forcing human beings to remain consumers rather than become creators.
- Technology cannot replace emotional and social engagement.

Way Forward:

- The policymakers will have to look again at the school education system if 21st-century skills are to be truly actualised.
- Educators could consider a design-based approach where students concentrate on a subject for two-three weeks to examine how it can be applied in the real world.
- Educators will have to find ways to upgrade their engagement strategies.
- They must integrate technology into their approach through hybrid learning.

9. Abanindranath Tagore

In News

The year-long celebrations marking 150 years of Abanindranath Tagore will be started soon, with a host of online workshops and talks paying tributes to the leading light of the **Bengal School of Art**.

Key Points

- **About:**
 - **Birth:** Abanindranath Tagore took birth in a family of Tagores of Jorasanko in Kolkata in 1871.
 - He was a nephew of **Rabindranath Tagore**.
 - **Abanindranath's Ideology:** In his youth, Abanindranath received training in European and Academic style from European artists.
 - However, during the last decade of the 19th century, he **developed a distaste for European naturalism** (which represented things closer to the way one sees them - inspired by the principles of natural science).
 - He **leaned towards painting images with historic or literary allusions**. He drew **inspiration from Mughal miniatures**.
 - Another source of inspiration came from the **visit of the Japanese philosopher and aesthetician Okakura Kakuzo** to Kolkata in 1902.
- **Contribution to Indian Freedom Struggle:**
-

- In the **last decades of the nineteenth century**, a new art movement emerged which received its primary stimulus from the growing nationalism in India.
- In Bengal, a **new group of nationalist artists** gathered around Abanindranath Tagore.
- He was arguably the first major exponent of an artistic idiom that sought to **modernise the Mughal and the Rajput styles** in order to **counter the influence of Western models of art under the colonial regime**.
- Though many of the paintings of this new trend primarily focused on **themes of Indian mythology and cultural heritage**, they are important sources for studying the modern art movement in India and for the art historians.
- His unique interpretation of **swadeshi themes** created a **new awakening** and heralded a revival of Indian art.
- He was the creator of the iconic **'Bharat Mata' painting**.
- **Victoria Memorial Hall** is the custodian of the **Rabindra Bharati Society** collection, the single-largest collection of works by the artist.

Bengal School of Painting

- It is also called the **Renaissance School or the Revivalist School**, as it represented the **first modern movement of Indian art**.
- It **rediscovered the glories of Indian art** and consciously tried to produce what it considered a truly Indian art inspired by the creations of the past.
- Its **leading artist was Abanindranath Tagore** and its **theoretician was E.B. Havell**, the principal of the Calcutta School of Art.

10. Constitutional (127th) Amendment Bill, 2021

In news: Union Government is planning to bring a Bill to Parliament to clarify some provisions in the 102nd Constitutional amendment Act (CAA) **to restore the power of the states to identify backward classes**.

- In India, separate OBC lists are drawn up by the Centre and each state concerned. Articles 15(4), 15(5) and 16(4) expressly conferred power on a state to identify and declare the list of socially and educationally backward classes.
- The amendment was necessitated after the SC in its Maratha reservation ruling upheld the 102nd CAA but said the President, based on the recommendations of the National Commission for Backward Classes (NCBC), would determine which communities would be included on the state OBC list.

What is the 102nd Constitution Amendment Act of 2018?

It inserted Articles 338B and Article 342A (with two clauses) after Article 342.

- **Articles 338B** deals with the structure, duties and powers of the National Commission for Backward Classes.
- **Article 342A** says that the President, in consultation with the governor, would specify the socially and educationally backward classes.

About the Constitutional (127th) Amendment Bill, 2021:

- It will amend clauses 1 and 2 of Article 342A and also introduce a new clause 3.
- The bill will also amend Articles 366 (26c) and 338B (9).
 - It is designed to clarify that **the states can maintain the “state list” of OBCs** as was the system before the Supreme Court judgment.
 - Article 366 (26c) defines socially and educationally backward classes.
- The “state list” will be completely taken out of the ambit of the President and will be **notified by the state assembly**.

What is the procedure for passing Constitutional Amendment Bills?

As per the procedure laid down in the Constitution, **Constitution Amendment Bills can be of three types viz.**

- requiring a **simple majority** for their passage in each House.
- requiring a **special majority** for their passage in each House i.e., a majority of the total membership of a House and by a majority of not less than two-thirds of the members of that House present and voting (**article 368**).
- requiring **special majority** for their passage and ratification by Legislatures of **not less than one-half of the States** by resolutions to that effect passed by those Legislatures (clause (2) of **article 368**).
- A Constitution Amendment Bill under article 368 can be introduced in either House of Parliament and has to be passed by each House by special majority.
- There is **no provision of joint sittings** on a Money Bill or a Constitution Amending Bill.

11. Governors can pardon death row: Supreme Court

The Supreme Court has held that the Governor of a State can pardon prisoners, including death row ones, even before they have served a minimum of 14 years of a prison sentence.

SC Judgement: Section 433-A CrPC

- The Governor's power to pardon overrides a provision in the Code of Criminal Procedure – Section 433A.
- This article mandates that a prisoner's sentence can be remitted only after 14 years of jail.
- Such power is in the exercise of the power of the sovereign, though the Governor is bound to act on the aid and advice of the State Government, the apex court observed.
- Section 433-A of the Code cannot and does not in any way affect the constitutional power conferred on the President/Governor to grant pardon under Articles 72 or 161 of the Constitution.

What does one mean by Pardon?

- A pardon is a government/executive decision to allow a person to be absolved of guilt for an alleged crime or other legal offense as if the act never occurred.

Why need Pardon?

- Pardons can be granted when individuals are deemed to have demonstrated that they have "paid their debt to society", or are otherwise considered to be deserving of them.
- Pardons are sometimes offered to persons who were either wrongfully convicted or who claim that they were wrongfully convicted.
- Pardons are sometimes seen as a mechanism for combating corruption, allowing a particular authority to circumvent a flawed judicial process to free someone that is seen as wrongly convicted.

Pardoning powers in India

- Under the Constitution of India (Article 72), the President of India can grant a pardon or reduce the sentence of a convicted person, particularly in cases involving capital punishment.
- A similar and parallel power vests in the governors of each state under Article 161.

[I] President

1. Article 72 says that the president shall have the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offense.

2. The pardoning powers of the Indian President are elucidated in Art 72 of the Indian Constitution. There are five different types of pardoning that are mandated by law.
- **Pardon:** means completely absolving the person of the crime and letting him go free. The pardoned criminal will be like a normal citizen.
 - **Commutation:** means changing the type of punishment given to the guilty into a less harsh one, for example, a death penalty commuted to a life sentence.
 - **Reprieve:** means a delay allowed in the execution of a sentence, usually a death sentence, for a guilty person to allow him some time to apply for Presidential Pardon or some other legal remedy to prove his innocence or successful rehabilitation.
 - **Respite:** means reducing the quantum or degree of the punishment to a criminal in view of some special circumstances, like pregnancy, mental condition etc.
 - **Remission:** means changing the quantum of the punishment without changing its nature, for example reducing twenty-year rigorous imprisonment to ten years.

Cases as specified by art. 72

- in all cases where the punishment or sentence is by a court-martial;
- in all cases where the punishment or sentence is for an offence against any law relating to a matter to which the executive power of the Union extends;
- in all cases where the sentence is a sentence of death.

[II] Governor

- Similarly, as per article 161: Governor of a State has the power to grant pardons, reprieves, respites or remissions of punishment or to suspend, remit or commute the sentence of any person convicted of any offence against any law.
- It must be relating to a matter to which the executive power of the state extends.
- President can grant pardon to a person awarded a death sentence. But a governor of a state does not enjoy this power.

Nature of the Pardoning Power

- **Not absolute:** The question is whether this power to grant pardon is absolute or this power of pardon shall be exercised by the President on the advice of Council of Ministers.
- **Aid and advice:** The pardoning power of the president is not absolute. It is governed by the advice of the Council of Ministers.
- **Constitution is silent on this:** This has not been discussed by the constitution but is the practical truth. Further, it does not provide for any mechanism to question the legality of decisions of President or governors exercising mercy jurisdiction.
- **Judicial review applicable:** But the SC in Epuru Sudhakar case has given a small window for judicial review of the pardon powers of President and governors for the purpose of ruling out any arbitrariness.

Some traditions

- It is important to note that India has a unitary legal system and there is no separate body of state law.
- All crimes are crimes against the Union of India.
- Therefore, a convention has developed that the governor's powers are exercised for only minor offenses.
- While requests for pardons and reprieves for major offenses and offenses committed in the UTs are deferred to the President.

12. Sabki Yojna Sabka Vikas Campaign

The Government has launched 'Sabki Yojna Sabka Vikas' campaign for inclusive and holistic preparation of the Gram Panchayat Development Plan (GPDP).

Sabki Yojna Sabka Vikas

- Under Article 243 G of the Constitution, Panchayats have been mandated for the preparation and implementation of plans for economic development and social justice.
- Thus, Panchayats have a significant role to play in the effective and efficient implementation of flagship schemes/programs on subjects of national importance for transforming rural India.
- The objectives of the campaign broadly include strengthening of elected representatives and Self-Help Groups, evidence-based assessment of progress made.

- The campaign aimed to help Gram Panchayats (GPs) in preparation of convergent and holistic GPDP through the identification of sectoral infrastructural gaps in respective areas.

Gram Panchayat Development Plan (GPDP)

- The Gram Panchayats are constitutionally mandated for the preparation of GPDP for economic development and social justice utilizing resources available with them.
- The GPDP should be comprehensive and based on a participatory process involving the community particularly Gram Sabha.
- It will be in convergence with schemes of all related Central Ministries / Line Departments related to 29 subjects listed in the Eleventh Schedule of the Constitution.
 - - by a court.
 - Article 22 has two parts – **the first part deals with the cases of ordinary law** and the **second part deals with the cases of preventive detention law**.

Note: The **44th Amendment Act of 1978** has reduced the period of detention without obtaining the opinion of an advisory board from three to two months. However, this **provision has not yet been brought into force**, hence, the original period of three months still continues.

- **The preventive detention laws made by the Parliament are:**
 - Preventive Detention Act, 1950. Expired in 1969.
 - Maintenance of Internal Security Act (MISA), 1971. Repealed in 1978.
 - Conservation of Foreign Exchange and Prevention of Smuggling Activities Act (COFEPOSA), 1974.
 - **National Security Act (NSA), 1980.**
 - Prevention of Blackmarketing and Maintenance of Supplies of Essential Commodities Act (PBMSECA), 1980.
 - Terrorist and Disruptive Activities (Prevention) Act (TADA), 1985. Repealed in 1995.
 - Prevention of Illicit Traffic in Narcotic Drugs and Psychotropic Substances Act (PITNDPSA), 1988.
 - Prevention of Terrorism Act (POTA), 2002. Repealed in 2004.
- **Issues related to Preventive Detention Laws in India:**
 - No democratic country in the world has made preventive detention as an integral part of the Constitution as has been done in India.

- The governments sometimes use such laws in an extra-judicial power. Also, there remains a fear of arbitrary detentions.

13. Members of Parliament Local Area Development Scheme (MPLADS)

Virtually, 50% of funds allotted for ongoing MPLADS projects have lapsed.

MPLAD scheme

- The Members of Parliament Local Area Development Scheme (MPLADS) is a program first launched during the Narasimha Rao Government in 1993.
- It was aimed towards providing funds for developmental works recommended by individual MPs.

Funds available

- The MPs then were entitled to recommend works to the tune of Rs 1 crore annually between 1994-95 and 1997-98, after which the annual entitlement was enhanced to Rs 2 crore.
- The UPA government in 2011-12 raised the annual entitlement to Rs 5 crore per MP.

Implementation

- To implement their plans in an area, MPs have to recommend them to the District Authority of the respective Nodal District.
- The District Authorities then identify Implementing Agencies that execute the projects.
- The respective District Authority is supposed to oversee the implementation and has to submit monthly reports, audit reports, and work completion reports to the Nodal District Authority.
- The MPLADS funds can be merged with other schemes such as MGNREGA and Khelo India.

Guidelines for MPLADS implementation

- The document 'Guidelines on MPLADS' was published by the Ministry of Statistics and Programme Implementation in June 2016 in this regard.
- It stated the objective of the scheme to enable MPs to recommend works of developmental nature with emphasis on the creation of durable community assets based on the locally felt needs in their Constituencies.

- Right from the inception of the Scheme, durable assets of national priorities viz. drinking water, primary education, public health, sanitation, and roads, etc. should be created.
- It recommended MPs to works costing at least 15 percent of their entitlement for the year for areas inhabited by Scheduled Caste population and 7.5 percent for areas inhabited by ST population.
- It lays down a number of development works including construction of railway halt stations, providing financial assistance to recognized bodies, cooperative societies, installing CCTV cameras etc.

14. CJI recuses himself from Andhra-Telangana Case

The Chief Justice of India (CJI) N V Ramana (who hails from AP) recused himself from hearing Andhra Pradesh's plea after it said "no" to the Supreme Court's suggestion to go for mediation over a dispute with Telangana over the Krishna River dispute.

Recusal of Judges

- Recusal is the removal of oneself as a judge or policymaker in a particular matter, especially because of a conflict of interest.
- Recusal usually takes place when a judge has a conflict of interest or has a prior association with the parties in the case.
- For example, if the case pertains to a company in which the judge holds stakes, the apprehension would seem reasonable.
- Similarly, if the judge has, in the past, appeared for one of the parties involved in a case, the call for recusal may seem right.
- A recusal inevitably leads to delay. The case goes back to the Chief Justice, who has to constitute a fresh Bench.

Rules on Recusals

- There are no written rules on the recusal of judges from hearing cases listed before them in constitutional courts.
- It is left to the discretion of a judge.
- The reasons for recusal are not disclosed in an order of the court. Some judges orally convey to the lawyers involved in the case their reasons for recusal, many do not. Some explain the reasons in their order.
- The decision rests on the conscience of the judge. At times, parties involved raise apprehensions about a possible conflict of interest.

Issues with recusal

- Recusal is also regarded as the abdication of duty. Maintaining institutional civilities is distinct from the fiercely independent role of the judge as an adjudicator.
- In his separate opinion in the NJAC judgment in 2015, Justice Kurian Joseph highlighted the need for judges to give reasons for recusal as a measure to build transparency.
- It is the constitutional duty, as reflected in one's oath, to be transparent and accountable, and hence, a judge is required to indicate reasons for his recusal from a particular case.

15. Stubble Burning

In News

Recently, some experts advised that the government should speed up implementation of **alternatives to stubble burning**.

- The centre, facing criticism from **farmers protesting against the farm laws**, had committed to **removing a clause in the Air Commission Bill, 2021** that would penalise farmers for burning stubble, an important contributor to noxious air quality.

Key Points

- **About:**
 - Stubble (parali) burning is the **act of setting fire to crop residue** to remove them from the field to sow the next crop.
 - In order to plant the next winter crop (Rabi crop), farmers in **Haryana and Punjab** have to move in a very short interval and if they are late, due to short winters these days, they might face considerable losses. Therefore, **burning is the cheapest and fastest way to get rid of the stubble**.
 - If parali is left in the field, **pests like termites may attack the upcoming crop**.
 - The precarious **economic condition of farmers doesn't allow them to use expensive mechanised methods** to remove stubble.
 - **It begins around October and peaks in November**, coinciding with the withdrawal of **southwest monsoon**.
- **Major Causes:**
 - **Technology:**
 - The problem arises due to the **use of mechanised harvesting** which leaves several inches of stubble in the fields.

- Earlier, this excess crop was used by farmers for cooking, as hay to keep their animals warm or even as extra insulation for homes.
- But, now the stubble use for such purposes has become outdated.
- **Adverse Impact of Laws:**
 - Implementation of the **Punjab Preservation of Subsoil Water Act (2009)** made the time period of stubble burning coincident with the onset of winter in Northern India.
 - **Late transplanting of paddy** during Kharif season to prevent water loss as directed by PPSW Act (2009) had left farmers with little time between harvesting and preparing the field for the next crop and hence farmers are resorting to the burning of stubble.
- **High Silica Content:**
 - Rice straw is **considered useless as fodder** in the case of non-basmati rice, because of its high silica content.
- **Effects of Stubble Burning:**
 - **Pollution:**
 - Open stubble burning emits large amounts of toxic pollutants in the atmosphere which contain harmful gases like **methane (CH₄)**, **Carbon Monoxide (CO)**, **Volatile organic compound (VOC)** and **carcinogenic polycyclic aromatic hydrocarbons**.
 - After the release in the atmosphere, these pollutants disperse in the surroundings, may undergo a physical and chemical transformation and eventually **adversely affect human health by causing a thick blanket of smog**.
 - **Soil Fertility:**
 - Burning husk on the ground **destroys the nutrients in the soil**, making it less fertile.
 - **Heat Penetration:**
 - Heat generated by stubble burning penetrates into the soil, leading to the **loss of moisture and useful microbes**.
- **Alternatives to Stubble Burning:**
 - **In-Situ Treatment of Stubble-** For example crop residue management by zero-tiller machine and Use of bio-decomposers.
 - **Ex-Situ (off site) Treatment-** For example use of rice straw as cattle fodder.
 - **Use of Technology-** For example Turbo Happy Seeder (THS) machine, which can uproot the stubble and also sow seeds in the area cleared. The stubble can then be used as mulch for the field.
 - **Changing Cropping Pattern-** It is the deeper and more fundamental solution.

Way Forward

- Imposing a **fine is not going to work in our socio-economic conditions** for curbing stubble burning. We need to **focus on alternative solutions**.
- Although the government is distributing but **everyone is not getting the machines for in-situ management**. The government should ensure their availability to everyone.
- Similarly, in ex-situ management, some companies have started collecting stubble for their use, **but more effort on this front is needed**.
- **Small and marginal farmers, especially, need support for adoption of in-situ strategies**, to mulch the straw into the soil and not burn it. **Penalty without access to solutions does not work**.

16.Funds Lapsed in MPLADS

In News

Recently, the **Standing Committee on Finance** has criticised the decision of the **Ministry of Finance** (Department of Expenditure) for giving barely a week's time to the **Ministry of Statistics and Programme Implementation (MoSPI)** for funding ongoing **Member of Parliament Local Area Development Scheme (MPLADS)** projects, owing to which 50% funds lapsed.

Key Points

- **Findings of the Committee:**
 - **Impact on the Projects:** The resultant funding crunch would have hit several local area development projects under implementation across the country.
 - Especially in the States that went to polls this year as no funds were released for these States and constituencies citing the **Model Code of Conduct**.
 - **Ad-hocism in Policy:** Under MPLADs, funds released to district authorities are not lapsable, while funds not released by the government in a particular year are carried forward.
 - However, the decision of the Ministry of Finance that made funds lapsable, **constitutes ad-hocism and a serious lapse in fiscal management** with negative consequences for communities across India.
- **About the MPLAD Scheme:**
 - MPLAD is a **Central Sector Scheme** which was announced in **December 1993**.

- The objective of the scheme is to enable the Members of Parliament (MP) to suggest and **execute developmental works of capital nature based on locally** felt needs with emphasis on creation of durable assets.
- Initially, it came under the control of the **Ministry of Rural Development**. Later, in October 1994, it was transferred to the **Ministry of Statistics and Programme Implementation**.
- **Functioning:**
 - Each MP is granted **Rs. 5 crore under the scheme**, adding up to Rs. 3,950 crore a year for 790 MPs, to undertake development projects in their respective constituencies.
 - **Lok Sabha MPs** have to recommend the district authorities projects in their **Lok Sabha constituencies**.
 - **Rajya Sabha MPs** have to **spend it in the state** that has elected them to the House.
 - **Nominated Members** of both the Rajya Sabha and Lok Sabha can **recommend works anywhere in the country**.
- **Priority Projects:**
 - The projects include asset building such as drinking water facilities, primary education, public health sanitation and roads.
 - Since June 2016, the MPLAD funds can also be used for implementation of the schemes such as **Swachh Bharat Abhiyan**, **Accessible India Campaign (Sugamya Bharat Abhiyan)**, conservation of water through rain water harvesting and **Sansad Aadarsh Gram Yojana**, etc.
- **Other Issues Related to MPLADS:**
 - **Implementation Lapses:** The **Comptroller and Auditor-General of India (CAG)** has flagged instances of **financial mismanagement and artificial inflation** of amounts spent.
 - **No Statutory Backing:** The scheme is **not governed by any statutory law** and is subject to the whims and fancies of the government of the day.
 - **Monitoring and Regulation:** The scheme was launched for promoting participatory development but there is **no indicator available to measure level of participation**.
 - **Breach of Federalism:** Union Government can incur expenditure only with respect to matters over which it has subject domain as per seventh schedule.
 - **MPLADS encroaches upon the domain of local self governing institutions** and thereby violates **Part IX and IX-A** of the Constitution.

- **Conflict with Doctrine of Separation of Powers:** The Scheme disturbs the scheme of separation of powers under the Constitution, as **MPs are getting involved in executive functions.**

17. External Affairs Minister's Visit to Iran

In News

India's External Affairs Minister (EAM) visited Iran to attend the **swearing-in ceremony of new Iranian President Ebrahim Raisi**. This marks a landmark event attempting to **reset the ties with Iran** that have been under strain in recent times.

- This is EAM's **second visit in a month** and it comes amid a sharp escalation of the **fighting in Afghanistan** between the Taliban and the Afghan security forces.

Key Points

- **Importance of Iran for India:**
 - **Geo-strategic Outreach:** India views Iran as key to **access land-locked Afghanistan and Central Asia through Chabahar Port.**
 - Iran's geographical position is paramount to India's geopolitical outreach, especially to **Central Asia**, a rich reservoir of natural resources.
 - Similarly, Iran is vital for **India's access to Afghanistan** in which India has immense strategic and security interests.
 - Further, India has been developing the **Chabahar port in a bid to bypass the impediments placed by Pakistan** in the way of its attempts to trade with Afghanistan.
 - **Energy Security:** Iran, **one of the richest countries in hydrocarbons** and India, a rapidly growing economy with a deep thirst for energy - make them natural partners.
- **Significance of the Visit:**
 - **Reasons for Tussle in India-Iran Relationship:**
 - **India cancelling oil imports from Iran** due to US sanctions.
 - **Slow progress** in Chabahar port.
 - Tussle over **Farzad-B Gas Field**.
 - **Iranian comments on Kashmir** over the past few years.
 - **Security Concerns Emanating From Afghanistan:** Visit comes amidst **rapid developments in Afghanistan**, with the **US completing the pull-out of troops** and the Taliban increasing its attacks on Afghan cities.
 - The rapid advance of Taliban concerns both India and Iran.

- Given this context, and common interests, it is necessary for India and Iran to cooperate more closely, particularly on Afghanistan.
- **Associated Challenges:**
 - **India's Exclusion in Afgan Peace Process:** Another "Troika plus" meeting, the U.S.-Russia-China-Pakistan grouping on Afghanistan peace process, is going to be held in Doha.
 - However, India and Iran, which are two regional powers, are being left out.
 - **Persisting Sanctions on Iran:** Despite campaign promises to reverse the Donald Trump policy on Iran, US President Joe Biden's administration is yet to withdraw most of the additional sanctions placed in 2017-2018.

Way Forward

- India has proposed to include the **Chabahar port** in the framework of the **International North South Transport Corridor**.
 - In this context, the formation of **India-Uzbekistan-Iran-Afghanistan Quadrilateral Working Group** on the joint use of Chabahar port is a welcome development.
- India needs to **balance its ties with Iran on one side and the US along with its allies like Saudi Arabia and Israel, on the other.**

18. Second Anniversary of Special Status Revocation: J&K

In News

The Forum for Human Rights in J&K (FHRJK) released its report a day ahead of Jammu and Kashmir (J&K) completing two years as Union Territory.

- The report **raised concerns about the militancy** that continues to remain a major challenge in J&K.
- **FHRJK is an independent body** co-chaired by former Supreme Court judge Justice Madan B. Lokur and former Kashmir interlocutor Radha Kumar.

Key Points

- **Background:**
 - On 5 August 2019, the government of India revoked the special constitutional status of the erstwhile state of Jammu and Kashmir under Article 370 of the Constitution, and abrogated **Article 35A**.
 - **Article 35A** had allowed J&K to define who its 'permanent residents' are and what rights and privileges are attached to such residency.
 - The former state was bifurcated into the **Union Territories of Ladakh (without a legislature) and Jammu-Kashmir (with a legislature)**.
 - Concurrently, the Indian government imposed a near-total telecommunications lockdown in the region, detained political leaders and dissidents, and enforced **Section 144 of the Indian Penal Code** to prevent violent unrest.
- **Findings from the Report:**
 - The reports raised concerns regarding **human rights abuses, arbitrary detentions, prohibition on assembly and censorship on local media houses in J&K**.
 - The government has taken **several positive steps**, but they fell short of expectations.
 - It also held that the **counter-insurgency concerns continue** to be given priority over public, civilian and human security.
- **Reasons for Militancy in J&K:**
 - Since the **special constitutional position of Jammu and Kashmir (J&K's) under Article 370** was ended and it was divided into two UTs of J&K and Ladakh, a section of people in J&K has been protesting against the decision.
 - Further, **allowing Indian citizens to buy land in Jammu and Kashmir (J&K)** without being a domicile, has angered the local people.
 - Following this the **militancy in the J&K, aided by cross-border support**, continues to affect the region.
 - This is coupled with misuse of draconian legislation, such as the **Public Safety Act (PSA)** and the **Unlawful Activities Prevention Act (UAPA)**.
 - Furthermore, there are growing fears that the **Taliban takeover of Afghanistan** is likely to further deteriorate the security conditions.
- **Steps Taken by Government & Judiciary:**
 - **Promoting Industrial Development:** Recently, the Department for Promotion of Industry and Internal Trade has notified **New Central Sector Scheme** for industrial development of Jammu and Kashmir.
 - The scheme offers four incentives namely:

- Capital Investment Incentive,
- Capital Interest subvention,
- Goods & Service Tax Linked Incentive
- Working Capital Interest Subvention.
- The Scheme will help in creation of more employment opportunities and promotion of tourism in the region.
- **AB-PMJAY SEHAT Scheme:** The Scheme provides free of cost insurance cover. It provides financial cover upto Rs. 5 lakh per family on a floater basis to all residents of the UT of J&K.
- **Ceasefire Agreement:** Indian and Pakistani **Directors-General of Military Operations (DGMOs)** agreed for restricted infiltration by armed groups and raised hopes that a wider peace process might follow.
- **Elections in J&K:** The Union government sought to conduct elections in J&K.
 - However, the government held that the elections would be held for a UT assembly. On the contrary, regional parties are of the view that they will participate in the election, after statehood to J&K has been reinstated.
- **Supreme Court Verdict on Internet Shutdown:** The Supreme Court gave a judgement in response to petitions filed, arguing the Internet shutdown and curbing of other civil liberties in the J&K.
 - The court held that suspension could be done for temporary duration only and the same is subject to judicial review.
- **Special Package for J&K** and Ladakh under Deendayal Antyodaya Yojana-National Rural Livelihood Mission.

Way Forward

- The Human rights forum recommended **release of all remaining political detainees** and **repeal of the PSA** and other **preventive detention legislation**.
- It also called for **involvement of local communities** in facilitating the return of Kashmiri Pandits.
- Peace framework in J&K can be established by implementing the vision of former Prime Minister of India (**Atal Bihari Vajpayee**) - **Kashmiriyat, Insaniyat, Jamhooriyat** (inclusive culture of Kashmir, humanitarianism and democracy) for Kashmir solution.

19. Sorry State of Tribunals

Recently, the **Supreme Court (SC)** expressed displeasure against the Central government by asking whether it intends to “close” **tribunals** across the country by not filling up vacancies that have been pending for years.

Key Points

- **About Tribunals:**
 - Tribunal is a **quasi-judicial institution** that is set up to deal with problems such as resolving administrative or tax-related disputes.
 - It performs a number of **functions like adjudicating disputes, determining rights between contesting parties, making an administrative decision, reviewing an existing administrative decision** and so forth.
 - Tribunals were not part of the original constitution, it was incorporated in the Indian Constitution by **42nd Amendment Act, 1976**.
 - **Article 323-A** deals with Administrative Tribunals.
 - **Article 323-B** deals with tribunals for other matters.
 - The Tribunals were set up to reduce the workload of courts, to expedite decisions and to provide a forum which would be manned by lawyers and experts in the areas falling under the jurisdiction of the Tribunal.
- **Issues Concerning Tribunals:**
 - **Persisting Vacancies:** The SC noted that, the **vacancies of 20 presiding officers, 110 judicial members and 111 technical members** were pending across the country in various tribunals.
 - For example, in the **National Green Tribunal, Income Tax Appellate Tribunal, Central Administrative Tribunal**.
 - These persisting vacancies make them redundant.
 - **Ignoring Recommendations:** Recommendations of names by the selection committees led by sitting Supreme Court judges to fill up the vacancies have been largely ignored by the government.
 - **Denying Right of the People to Access Justice:** The Court pointed out that with tribunals defunct and High Courts having no jurisdiction over the areas of law wielded by tribunals, litigants have nowhere to go for justice.
 - **Problem of Non-Uniformity:** Added to this is the problem of non-uniformity across tribunals with respect to service conditions, tenure of members, varying nodal ministries in charge of different tribunals.
 - These factors contribute significantly to malfunctioning in the managing and administration of tribunals.
- **Related Development:**
 - **The Tribunals Reforms (Rationalisation and Conditions of Service) Bill, 2021** has been introduced in Lok Sabha.
 - The Bill **dissolves certain existing appellate bodies** and transfers their functions to other existing judicial bodies.
 - The **term of office for the Chairperson and members of a Tribunals will be four years**, subject to an upper age limit of seventy years for the Chairperson, and sixty-seven years for other members.

- The Bill specifies that a person should be at least 50 years of age to be eligible for appointment as a Chairperson or member.

Way Forward

- Reforming the tribunals system in India may as well be one of the keys to remedy the age-old problem that still cripples the Indian judicial system – **the problem of judicial delay and backlog.**
- To regulate the matters of tribunals without compromising their independence is the establishment of the **National Tribunals Commission (NTC).**

20. Constitution (Scheduled Tribes) Order (Amendment) Bill, 2021

In News

Recently, Rajya Sabha has passed the **Constitution (Scheduled Tribes) Order (Amendment) Bill, 2021.**

- The bill provides for **modifying Part-XVIII of the Schedule to the Constitution (Scheduled Tribes) Order, 1950,** relating to the state of Arunachal Pradesh.

Key Points

- **About the Bill:**
 - It seeks to **amend the constitutional list of Scheduled Tribes as recommended by Arunachal Pradesh.**
 - At present, there are **18 communities with their synonyms** appearing in the illustrative list of Scheduled Tribes in respect of the state of Arunachal Pradesh.
 - This **amendment** in the list of Scheduled Tribes, relating to the state of Arunachal Pradesh, will entail **no additional recurring expenditure** from the **Consolidated Fund of India**, on account of benefits likely to be provided to persons belonging to the communities proposed in the Bill.
 - The **Ministry of Tribal Affairs** is funding the **welfare of 10.45 crores of Scheduled Tribes population (Census, 2011).**
 - Further, the **Scheduled Tribes are also eligible** for benefits under the **Scheduled Tribes Component (STC) of schemes** under the central government and state governments.
 - The **basic objective of Schedule Tribe Component** is to channelize/monitor the flow of outlays and benefits from the general sectors in the Central Ministries/Departments

for the development of Scheduled Tribes at least in proportion to their population.

- **Scheduled Tribes in Arunachal Pradesh:**
 - Nearly **64.2% of the total population** of Arunachal Pradesh is **Scheduled Tribes (STs)** according to the **2001 Census**.
 - The state has registered a decadal growth of 28.1% of ST population in 1991-2001 Census.

Scheduled Tribe

- **Article 366 (25)** of the Constitution refers to **Scheduled Tribes** as those communities, who are scheduled in accordance with Article 342 of the Constitution.
- **Article 342** says that **only those communities** who have been declared as such by the **President** through an initial public notification or through a subsequent amending Act of Parliament will be considered to be Scheduled Tribes.
- The list of **Scheduled Tribes is State/UT specific** and a community declared as a Scheduled Tribe in a State need not be so in another State.
- The **Constitution is silent about the criteria** for specification of a community as a Scheduled Tribe. Primitiveness, geographical isolation, shyness and social, educational & economic backwardness are the traits that distinguish Scheduled Tribe communities from other communities.
- There are certain Scheduled Tribes, 75 in number known as **Particularly Vulnerable Tribal Groups (PVTGs)**, who are characterised by:- a) pre-agriculture level of technology; b) stagnant or declining population; c) extremely low literacy; and d) subsistence level of economy.
- Government Initiatives: The **Scheduled Tribes and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (FRA)**; The **Provision of the Panchayats (Extension to the Scheduled Areas) Act, 1996**; Minor Forest Produce Act 2005; **SC And ST (Prevention Of Atrocities) Act**; and the Tribal Sub-Plan Strategy are focused on the socio-economic empowerment of STs.

21. Supreme Court Rules on Future Retail Vs Amazon

In News

Recently, the **Supreme Court upheld the enforcement of an order by the Singapore International Arbitration Centre (SIAC)'s emergency arbitrator that puts on hold the Future Group's deal with Reliance Industries Limited.**

Singapore International Arbitration Centre

- It is a not-for-profit international arbitration organisation based in Singapore, which administers arbitrations under its own rules of arbitration and the **United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules**.

Key Points

- **Background:**
 - In August 2020, Future Retail Limited (FRL) had announced that it would sell its retail and wholesale business to Reliance Retail.
 - Before the deal could be executed, Amazon objected to it, alleging a breach of contract it had with Future Coupons (the promoter firm of Future Retail).
 - Amazon said that its agreement with Future Coupons had given it a “call” option, which enabled it to exercise the option of acquiring all or part of Future Retail’s shareholding in the company, within three to 10 years of the agreement.
 - Subsequently, Amazon took Future Retail into Emergency Arbitration before the SIAC, where an emergency arbitrator barred the latter from proceeding with the deal.
 - **Emergency arbitration** is a mechanism which "allows a disputing party to apply for urgent interim relief before an arbitration tribunal has been formally constituted".
- **Significance of Supreme Court’s Order:**
 - **Dismissed FRL’s argument that the “Emergency Arbitrator is not an arbitral tribunal” under the Arbitration and Conciliation Act of 1996.**
 - It upheld the validity of the EA award. The judgment laid down that the award is “**exactly like an order of an arbitral tribunal contemplated under Section 17** of the 1996 Act. Hence, an award by the EA was like an order under Section 17(1) (interim measures ordered by an arbitral tribunal) of the Act.
 - Section 17 of the Act prescribes the mechanism for parties to an arbitration to seek interim reliefs from the arbitral tribunal during the pendency of the arbitral proceedings.
 - The EA orders were “**an important step in aid of decongesting the civil courts and affording expeditious interim relief to the parties**”.
 - The court **pointed out a recommendation that a High-Level Committee constituted by the Government of India under the chairmanship of Justice B N Srikrishna (retd) to review the institutionalisation of the arbitration mechanism in India and look into**

the provisions of the Arbitration Act after the 2015 Amendment Act, gave in its 2017 report.

- It said that “given that international practice is in favour of enforcing emergency awards (Singapore, Hong Kong and the United Kingdom all permit enforcement of emergency awards), it is time that India permitted the enforcement of emergency awards in all arbitral proceedings”.
- The judgment would serve as a **reminder to the parties to carefully agree to the terms and conditions of the arbitration.**
- **No appeal would lie under Section 37 of the Arbitration Act** against an order of enforcement of an Emergency Arbitrator’s order made under Section 17(2) of the Act.
 - Section 37 of the Arbitration Act, prescribes for appeals against certain identified orders of the court and/or arbitral tribunal (as the case may be).
 - However, Section 37 (unlike Section 34) of the Act is silent on the limitation period for filing an appeal.

Arbitration

- **About:**
 - It is a process in which disputes are resolved between the parties by appointing an independent third party who is an impartial and neutral person called arbitrator. Arbitrators hear both the parties before arriving at a solution to their dispute.
- **Arbitration and Conciliation (Amendment) Act, 2021:**
 - It amends the **Arbitration and Conciliation Act (A&C Act 1996)** so as to (i) enable automatic stay on awards in certain cases and (ii) specify by regulations the qualifications, experience and norms for accreditation of arbitrators.
 - **A&C Act 1996** is an act to amend and consolidate a law related to domestic arbitration, international commercial arbitration and enforcement of foreign arbitral awards as also to define the law relating to conciliation and for matters connected therewith or incidental therewith.
- **Features of the Act:**
 - **Qualifications of Arbitrators:**
 - **It does away with the qualifications of the arbitrators under 8th Schedule of the Arbitration and Conciliation Act, 1996** which specified that the arbitrator must be:
 - An advocate under the Advocates Act, 1961 with 10 years of experience, or
 - An officer of the Indian Legal Service.

- **Unconditional Stay on Awards:**
 - If the Award is being given on the basis of a fraudulent agreement or corruption, then the court can grant an unconditional stay as long as an appeal under Section 34 of the arbitration law is pending.
- **Benefits:**
 - Would bring about parity among all the stakeholders in the arbitration process.
 - Checking misuse of the provisions under Arbitration and Conciliation Act, 1996 would save the taxpayers money by holding those accountable who siphoned off of them unlawfully.
- **Drawbacks:**
 - India already lags behind when it comes to the enforcement of international contracts and agreements. The Act **can further hamper the spirit of Make in India campaign and deteriorate rankings in Ease of Doing Business Index.**
 - India aims to become a hub of domestic and international arbitration. Through the implementation of these legislative changes, resolution of commercial disputes could take longer duration now onwards.

22. Permanent Forum of People of African Descent

In News

Recently, the **United Nations General Assembly** has approved a resolution establishing a **Permanent Forum of People of African Descent**.

- The Forum focuses on the **themes of recognition, justice and development.**

Key Points

- **About the Forum:**
 - The forum will **provide expert advice** on addressing the challenges of **racism, racial discrimination, xenophobia and intolerance.**
 - It will serve as **“a platform for improving the safety and quality of life and livelihoods of people of African descent”** and their full inclusion in the societies where they live.
 - It was given a **series of mandates.**

- They include **helping to ensure “the full political, economic and social inclusion of people of African descent,”** and **providing recommendations on addressing racism to the Geneva-based Human Rights Council, the General Assembly's main committees and UN agencies.**
- The forum will consist of **10 members:**
 - five elected by the **General Assembly from all regions.**
 - five appointed by the **Human Rights Council** following consultations with regional groups and organizations of people of African descent.
- The resolution calls for the **forum's first session to take place in 2022.**
- **People of African Descent:**
 - **About:**
 - There are around **200 million people** identifying themselves as **being of African descent live in the Americas.**
 - **Many millions more** live in other parts of the world, **outside of the African continent.**
 - **Issues:**
 - Whether as **descendants of the victims of the transatlantic slave trade or as more recent migrants,** they constitute some of the **poorest and most marginalized groups.**
 - They still have **limited access to quality education, health services, housing and social security.**
 - They all too **often experience discrimination** in their access to justice, and **face alarmingly high rates of police violence,** together with **racial profiling.**
 - Furthermore, **their degree of political participation is often low,** both in voting and in occupying political positions.
 - **Related Initiative:**
 - **Durban Declaration and Programme of Action (2001):**
 - It **acknowledged that people of African descent were victims of slavery, the slave trade and colonialism,** and continue to be victims of their consequences.
 - It **raised the visibility of them** and contributed to a **substantive advancement in the promotion and protection of their rights** as a result of concrete actions taken by States, the United Nations, other international and regional bodies and civil society.
 - In 2014, the General Assembly officially launched the **International Decade for People of African Descent (2015 - 2024).**

Racism

- **About:**
 - **Racism**, also called racialism is the **belief that humans may be divided into separate and exclusive biological entities called “races”**; that there is a causal link between inherited physical traits and traits of personality, intellect, morality, and other cultural and behavioral features; and that some races are innately superior to others.
 - The term is **also applied to political, economic, or legal institutions and systems** that engage in or perpetuate discrimination on the basis of race or otherwise reinforce racial inequalities in wealth and income, education, health care, civil rights, and other areas.
 - **Xenophobia and Racism** mostly overlap, but the **stark difference** is racism is discrimination based on physical characteristics whereas xenophobia is discrimination based on the perception that someone is foreign or originating from another community or nation.
 - The word Xenophobia originates from the Greek word Xeno.
 - Racial discrimination is there in the Indian society.
- **Initiatives Against Racism:**
 - **Durban Declaration and Programme of Action (2001)**: Adopted by the World Conference against Racism, Racial Discrimination, Xenophobia and Related Intolerance.
 - Every year, **21st March**, is observed as **International Day for the Elimination of Racial Discrimination**.
 - **United Nations Educational, Scientific and Cultural Organization’s (UNESCO)** actions against racism through education, the sciences, culture, and communication offer an example of a way forward.
 - **Global Forum against Racism and Discrimination 2021**: UNESCO’s headquarters in Paris hosted it in partnership with the Republic of Korea.
 - In January 2021, the **World Economic Forum** launched a coalition of organizations committed to improving racial and ethnic justice in the workplace.
 - The **‘Black Lives Matter’** protests gained momentum in not only the United States but the whole world. People, as well as many governments across different countries, came forth against the prevalence of racial discrimination worldwide.
- **Provisions Against Racial Discrimination in India:**
 - **Article 15, Article 16 and Article 29** of the Constitution of India prohibit discrimination on grounds of “race”.
 - Section 153A of the **Indian Penal Code (IPC)** also refers to “race”.

- India also ratified the **International Convention on the Elimination of All Forms of Racial Discrimination (ICERD)** in 1968.

Way Forward

- Through **new approaches to intercultural dialogue and learning**, youth and communities can be equipped with skills to eradicate harmful stereotypes and foster tolerance.
- Recent and new manifestations of racism and discrimination call for renewed commitments to mobilise for equality. Racism will not be overcome with mere professions of good faith but must be combatted with anti-racist action.
 - The use of new technologies and artificial intelligence in security raise the spectre of 'techno-racism', as facial recognition programmes can misidentify and target racialized communities.
- A **global culture of tolerance, equality and anti-discrimination** should be built first and foremost in the minds of women and men.

23. Continuation of Scheme for Fast Track Courts

In news Recently, the Union Government approved the continuation of more than 1000 Fast Track Special Court (FTSCs) as a Centrally Sponsored Scheme (CSS) for two years (April 2021-March 2023).

- It includes 389 exclusive POCSO (Protection of Children from Sexual Offences) Courts.
- The Central share will be provided from the Nirbhaya Fund.

Background of Fast Track Courts

- Fast track courts (FTCs) were first recommended by the Eleventh Finance Commission in 2000 to substantially bring down pendency in the district and subordinate courts over the next five years.
- In 2011, the central government stopped funding fast-track courts.
 - The decision was challenged in the Supreme Court (SC) in 2012, but the apex court said it was up to the states to continue or shut down these courts depending on their financial situation.
 - Three states—Maharashtra, Tamil Nadu and Kerala—continued running these courts while Delhi, West Bengal, Himachal Pradesh and Karnataka had said they would continue till 2013.
 - Following the December 2012 Gangrape and murder, the Union Government set up a 'Nirbhaya Fund', amended the Juvenile Justice Act and set up fast-track Mahila Courts.

Scheme for Fast Track Special Courts

- In 2019, the government approved a scheme for setting up 1,023 fast-track special courts (FTSCs) across the country for expeditious disposal of pending rape cases under the Indian penal Code (IPC) and crimes under the POCSO Act.
- FTSCs are dedicated courts expected to ensure swift dispensation of justice. They have a better clearance rate as compared to the regular courts and hold speedy trials.
- It also strengthens the deterrence framework for sexual offenders.

How has the Performance been for Fast Track Courts?

- The Performance has been below par.
- According to NCRB (National Crime Records Bureau), at the end of 2019, rape cases had a pendency rate of 89.5% and the conviction rate of 27.8%.
- For POCSO cases, 88.8% cases were pending at the end of the year, and of those disposed of, 34.9% ended in a conviction.

Issues with FTCs

- **Lack of Infrastructure**
- **No clear Mandate:** There are no clear mandates on what kind of cases fast-track courts are supposed to hear.
- **Delay in Judgement**
- **Overburdened Judges**

24. Custodial Violence is Biggest Threat to Human Rights: CJI

In News

Recently, the **Chief Justice of India (CJI)** noted that **police stations pose the highest threat to human rights** and dignity as **custodial torture\violence** and police atrocities still prevail despite constitutional guarantees.

- He was speaking at the launch of a **legal service mobile application** and the **vision and mission statement** of **National Legal Services Authority's (NALSA)** legal services.

National Legal Services Authority

- It was **constituted under the Legal Services Authorities Act, 1987** which came into force in November, **1995** to establish a nationwide uniform network

for providing free and competent legal services to the weaker sections of the society.

- **CJI is the Patron-in-Chief** and the second senior most Judge of the **Supreme Court** of India is the Executive Chairman of the Authority.
- **Article 39 A** of the Constitution provides for free legal aid to the poor and weaker sections of the society, to promote justice on the basis of equal opportunity.
 - **Article 14 and Article 22 (1)**, obligates the State to ensure equality before law.
- It can be noted that the role played by NALSA and its networks is very much relevant to achieving the **Sustainable Development Goal-16**, which seeks to promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

Key Points

- **Vision & Mission Statement:**
 - It encapsulates the vision of NALSA **to promote an inclusive legal system and to ensure fair and meaningful justice** to the marginalized and disadvantaged sector.
 - It further promotes the mission of NALSA to **legally empower the marginalized and excluded groups** of the society by providing effective legal representation, legal literacy & awareness to bridge the gap between the legally available benefits and the entitled beneficiaries.
- **Legal Services Mobile Application:**
 - It incorporates features including **seeking legal assistance, legal advice, and other grievances**.
 - Application tracking facilities, and seeking clarifications are some additional features **available to both Legal Aid beneficiaries and Legal Services Authorities**.
 - Beneficiaries can also apply for pre-institution mediation through the app. Victims can also file an application for Victim Compensation with the App.

Custodial Violence

- **Related Data:**
 - According to **National Crime Records Bureau (NCRB)** data, between 2001 and 2018, only 26 policemen were convicted of custodial violence despite **1,727 such deaths being recorded in India**.
 - Only 4.3% of the 70 deaths in 2018 were attributed to injuries during custody due to physical assault by police.

- Except in Uttar Pradesh, Madhya Pradesh, Chhattisgarh and Odisha, no policeman was convicted for such deaths across the country.
- Apart from custodial deaths, **more than 2,000 human rights violation cases were also recorded against the police between 2000 and 2018.** And only 344 policemen were convicted in those cases.
- **Major Reasons:**
 - **Lack of Legal Representation:**
 - Lack of effective legal representation at police stations is a huge detriment to arrested or detained persons. The first hours of arrest or detention often decide the fate of the case for the accused.
 - **Lengthy Judicial Processes:**
 - Lengthy, expensive formal processes followed by courts dissuade the poor and the vulnerable.
 - **Absence of Strong Legislation:**
 - India **does not have an anti-torture legislation** and is yet to criminalise custodial violence, while action against culpable officials remains illusory.
 - **Institutional Challenges:**
 - The entire **prison system is inherently opaque** giving less room to transparency.
 - India also **fails in bringing the much desired Prison Reforms** and prisons continue to be affected by poor conditions, overcrowding, acute manpower shortages and minimal safety against harm in prisons.
 - **Excessive Force:**
 - The **use of excessive force including torture to target marginalised communities** and control people participating in movements or propagating ideologies which the state perceives as opposed to its stature.
 - **Not Adhering to International Standard:**
 - Although India has signed the **United Nations Convention against Torture in 1997** its ratification still remains.
 - While Signing only indicates the country's intention to meet the obligations set out in the treaty, Ratification, on the other hand, entails bringing in laws and mechanisms to fulfil the commitments.

Constitutional and Legal Provisions:

Protection from torture is a fundamental right enshrined under **Article 21 (Right to Life)** of the Indian constitution.

The **right to counsel** is also a fundamental right under **Article 22(1)** of the India constitution.

Section 41 of **Criminal Procedure Code (CrPC)** was amended in 2009 to include safeguards under 41A, 41B, 41C and 41D, so that arrests and detentions for interrogation have reasonable grounds and documented procedures, arrests are made transparent to family, friends and public, and there is protection through legal representation.

Way Forward

- To keep police excesses in check, **dissemination of information about the constitutional right to legal aid and availability of free legal aid services is necessary.**
 - The **installation of display boards and outdoor hoardings** in every police station/prison is a step in this direction.
- If India wants to remain as a society governed by the rule of law, **it is imperative for the judiciary to bridge the gap of accessibility to justice** between the highly privileged and the most vulnerable.
- Accessing justice in India is not merely an aspirational goal. **Judiciary needs to work hand in hand with various wings of the government** to make it a practical reality.

25. Five-point Framework for Maritime Security

A week into India's United Nations Security Council (UNSC) presidency, PM Modi has outlined a five-point framework for maritime security debate at UNSC.

Maritime Security

- Maritime security is one of the latest buzzwords of international relations.
- Major actors in maritime policy, ocean governance and international security have in the past decade started to include maritime security in their mandate or reframed their work in such terms.
- Core dimensions of maritime security involves the concept of blue economy, food security and the resilience of coastal populations.
- A secure maritime environment provides the precondition for managing marine resources.

Threats to maritime security

Need for an agenda

- In today's economy, the oceans have an increased importance, allowing all countries to participate in the global marketplace.
- More than 80 percent of the world's trade travels by water and forges a global maritime link.
- About half the world's trade by value, and 90 percent of the general cargo, are transported in containers.
- Many countries have invested significant resources in maritime infrastructure, trade, energy supply chains, cargo movements and processes.
- China, undeniably a continental country, claims sovereignty over all of the South China Sea islands and their adjacent waters.

5-point agenda for enhancing maritime cooperation

[1] Removal of barriers to legitimate maritime trade:

- Global prosperity depends on the active flow of maritime trade. Any hindrance in maritime trade can threaten the global economy, PM said.
- Maritime trade has always been part of the civilizational ethos of India.
- PM termed this principle as 'SAGAR' Security and Growth for All in the Region.

[2] Resolution of maritime disputes peacefully in accordance with international law:

- Citing the example of the resolution of India's maritime dispute with Bangladesh, PM Modi said it is necessary for free maritime trade to fully respect the rights of seafarers of other countries.

[3] Fight threats from natural disasters, non-state actors:

- PM said the Indian Navy has been patrolling to counter piracy in the Indian Ocean since 2008.
- It is enhancing the common maritime domain awareness of the region through our White Shipping Information Fusion Centre.
- India has provided support for hydrographic surveying and training of maritime security personnel to several countries.

[4] Conservation of marine resources:

- Our oceans directly impact our climate. Hence, it is very important that we keep our maritime environment free of pollutants like plastic waste and oil spills.
- We also need to take joint steps against over-fishing and marine poaching, PM said.
- He also emphasized the need for increased mutual cooperation in Ocean Science research.

[5] Promoting responsible maritime connectivity:

- PM said it is well understood that the creation of infrastructure is necessary to boost maritime trade.
- He advocated for appropriate global norms and standards to ensure that such infrastructure projects are carried out as per the fiscal sustainability and absorption capacity of the host countries.

26. Misinformation through a feminist lens

Online abuse of women:

- To add to the gender disparity in access to the internet, women are having to face online abuse.
- Though even men are targeted online, the attacks faced by both sexes are vastly different. Misinformation/ disinformation targets men and women differently. **A large number of young women and girls have experienced online abuse and they are more vulnerable to such abuse.**

Forms of online abuse:

- According to a recent report of the **Special Rapporteur on violence against women for the United Nations Commission on Human Rights**, online abuse can involve a variety of activities.
- It can include actions like bullying, trolling, cyberstalking, defamation and hate speech, public shaming, and identity theft and hacking, sexual harassment and threats of sexual violence, or the sharing of intimate images and videos without permission.

Gendered disinformation:

- **Women are more prone to gendered disinformation.**

- **Misinformation and sexism have a symbiotic relationship.** Misinformation piggybacks on sexism to discredit vocal women and sexism uses misinformation to reinforce patriarchal norms.

Inter-sectional challenges:

- **Misinformation like other forms of abuse and discrimination has inter-sectional challenges.**
- Organised disinformation and sexism intersect with Islamophobia, casteism, religious bigotry and other forms of discrimination. This only increases the impact on women from such vulnerable sections.

Vulnerability of women even in high positions:

- Even women in high positions are not spared from online abuse.
 - A 2020 report by Amnesty International noted a considerable number of female politicians receiving hateful mentions on social media platforms like Twitter. A substantial proportion of them was either sexist or misogynistic.
 - Women journalists are at great risk of being under such attacks on their social media platforms. A recent report by UNESCO on online harassment faced by women journalists says that political actors instigate and fuel online violence campaigns against women journalists.
- This is indicative of the extent of online abuse against women and girls and their vulnerability to it.

Concerns:

Impact on the girls and women:

- Online abuse can have a devastating impact on the girl or woman who faces such abuse.
- It causes tremendous distress. It **affects their emotional or physical wellbeing.** It results in physical, sexual, psychological or economic harm, and erodes self-esteem among the girls and women who face such abuse.
- It can **potentially silence women and force women – including journalists and politicians – out of jobs.**

Impact on society:

- While organised misinformation and trolling affect women on a personal level, it also has a **significant impact on society.**

- A healthy democracy is participatory and promotes gender inclusiveness. Sexism and misinformation intimidate women from taking vocal stands and silences them. As a result of this increasingly hostile online environment, **many women self-censor or are driven offline entirely**, out of fears for their safety. This would deprive society of any progressive ideas coming from such women. This would be **antithetical to a progressive society**.
- With the advent of a virtual society, offline violence against women has extended to online, which makes it easier for people to commit violence without consequences. **Online abuse is a part of gender-based violence (GBV)**.
- The online crisis facing women and girls **threatens global progress on gender equality**.

Lack of measures to address the challenge:

- Rather than addressing such behaviour, **often women are asked to either ignore the abusers or block such handles**.
- The author also criticizes the social media platforms of not doing enough to stop such incidents.

Conclusion:

- Online gender-based violence is just as destructive as offline violence.
- Online violence against women and girls should be accorded necessary attention and **addressing online abuse should become a part of the feminist discourse**.

27. Parties get 48 hours to publish candidates' criminal records

The Supreme Court has directed the political parties to publish the criminal history if any, of their election candidates on the homepage of their party websites under the caption 'candidates with criminal antecedents' within 48 hours of their selection.

Criminalization of politics: Indian Case

- The criminalization of politics has become a headache for the Indian democracy and it is a harsh reality now.
- Criminalization of politics in India includes political control of the police, state money, corruption, weak laws, lack of ethics, values, vote bank politics and loopholes in the function of the election commission.

- Deep down, it's a large nexus of police, money, corrupt bureaucracy, casteism, religion and the drawbacks of functioning in the election commission.

On a serious note

- The Supreme Court has warned Parliament that the nation is losing patience with the advent of criminals in politics even as it imposed fines on major political parties for covering up from voters the criminal past of the candidates.
- Cleansing the polluted stream of politics is obviously not one of the immediate pressing concerns of the legislative branch of government.
- The court said it did not take political parties much time to flout its February 2020 judgment, which had directed them to prominently publish the criminal antecedents.

What was the Feb 2020 Judgment?

The Supreme Court earlier in Feb 2020 had ordered political parties to publish the entire criminal history of their candidates for Assembly and Lok Sabha elections.

- **Reasons for nomination:** It has also asked for the reasons that goaded them to field suspected criminals over decent people.
- **Publication of records:** The information should be published in a local as well as a national newspaper as well as the parties' social media handles.
- **48hr time frame:** It should mandatorily be published either within 48 hours of the selection of candidates or less than two weeks before the first date for filing of nominations, whichever is earlier.
- **Contempt for non-compliance:** It also ordered political parties to submit compliance reports with the Election Commission of India within 72 hours or risk contempt of court action.
- **No escape:** The judgment is applicable to parties both at Central and State levels.

Immediate Reason

- The immediate provocation is the finding that 46% of MPs have criminal records.
- The number might be inflated as many politicians tend to be charged with relatively minor offences – “unlawful assembly” and “defamation”.
- The real worry is that the current cohort of Lok Sabha MPs has the highest (29%) proportion of those with serious declared criminal cases compared to its recent predecessors.

Why are such tainted candidates inducted by political parties?

- **Popularity:** Such candidates with serious records seem to do well despite their public image, largely due to their ability to finance their own elections and bring substantive resources to their respective parties.
- **Vested interests:** Some voters tend to view such candidates through a narrow prism: of being able to represent their interests by hook or by crook.
- **Destabilizing other electors:** Others do not seek to punish these candidates in instances where they are in contest with other candidates with similar records.

A harsh reality

- The NN Vohra committee's report on the criminalization of politics discussed how criminal gangs flourish under the care and protection of politicians.
- Many times the candidates themselves are the gang leaders.
- This protection is paid back to them during elections through capital investment in election spending and voter support.

Need for clean politics

- **Upholding morality:** It is extremely important that the people who enter the field of politics have a clear image and high moral character.
- **Ensuring rule of law:** A leader with criminal character undoubtedly tends to undermine the rule of law.

28.100 Years of Madras Legislative Council

In News

Recently, the President addressed the **commemoration of the 100th year of the Tamil Nadu Assembly, formerly known as the Madras Legislative Council (MLC) in Chennai.**

Key Points

- **History:**
 - The Madras Legislative Council was **set up in 1921 under the Government of India Act 1919.**
 - The term of the Council was **for a period of three years.** It consisted of 132 Members of which **34 were nominated by the Governor and the rest were elected.**

- It met for the first time on the 9th January 1921 at Fort St. George, Madras.
- The Council was inaugurated by the Duke of Cannaught, a paternal uncle of the King of England, on the 12th January 1921 on the request made by the **Governor Wellington**.
- The **Second and Third Councils**, under this Act were constituted **after the general elections held in 1923 and 1926 respectively**.
- The **fourth Legislative Council** met for the first time in **November 1930** after the general elections held during the year and its life was extended from time to time and it **lasted till the provincial autonomy under the Government of India Act, 1935 came into operation**.
- **Significance:**
 - This legislature **became the fountainhead of many progressive legislations** which were subsequently replicated across the country to empower the weaker sections of society and strengthen Democracy.
 - Abolition of the **Devadasi system, widow remarriage, mid-day meals in schools and distribution of agricultural land to the landless** were some of the revolutionary ideas that transformed the society.
 - The concept of the **Welfare State** has taken deep roots in this legislature.

State Legislature

- **About:**
 - The primary function of the State Legislature, like the Union Parliament, is **law-making**. The State Legislature is **empowered to make laws on State List and Concurrent List**.
- **Types of Legislature:**
 - Just as Parliament has two Houses, the **states can also have a Legislative Council in addition to the Legislative Assembly**.
 - Therefore there can be **two types** of legislatures i.e **Unicameral or Bicameral** on the basis of the number of houses to implement laws for the state.
 - **Unicameral:** Legislative Assembly
 - **Bicameral:** Legislative Assembly and Legislative Council.
 - Presently, there are Six States having a Legislative Council: **Andhra Pradesh, Telangana, Uttar Pradesh, Bihar, Maharashtra, Karnataka**.
- **Constitutional Provisions:**
 - **Articles 168 to 212 in Part VI** of the Constitution deal with the organisation, composition, duration, officers, procedures, privileges, powers and so on of the state legislature.
 - **Article 168** states that for **every State there shall be a Legislature** which shall consist of the **Governor**.

- **Article 169** states that notwithstanding anything in article 168, **Parliament may by law provide for the abolition of the Legislative Council** of a State having such a Council **or for the creation of such a Council** in a State having no such Council, if the Legislative Assembly of the State passes a resolution to that effect.

29. Women in Combat Role in ITBP

In News

For the first time, the **Indo-Tibetan Border Police (ITBP)** inducted women officers in the combat role. Two women officers joined it as Assistant Commandants (AC).

Indo-Tibetan Border Police Force

- **ITBP** is a **Central Armed Police Force** functioning under the **Ministry of Home Affairs**, Government of India.
 - Other Central Armed Police Forces are: **Assam Rifles (AR)**, **Border Security Force (BSF)**, **Central Industrial Security Force (CISF)**, **Central Reserve Police Force (CRPF)**, **National Security Guards (NSG)** and **Sashastra Seema Bal (SSB)**.
- The ITBP was raised on **24th October, 1962** during the **India-China War** and is a **border guarding police force** specializing in **high altitude operations**.
- Presently, ITBP is deployed on border guarding duties from **Karakoram Pass in Ladakh to Jachep La in Arunachal Pradesh** covering **3488 km of Indo-China Border**.
- The Force is also deployed for **Anti Naxal operations** and other internal security duties.
- ITBP was initially raised under the **Central Reserve Police Force (CRPF) Act, 1949**. However, in **1992**, **parliament enacted the ITBPF Act** and the rules were framed in 1994.

Key Points

- **About:**
 - Women officers joining the ITBP as officers have served in combat roles earlier as well.
 - However, it was only in 2016 when the appointment of women as combat officers through the Central Armed Police Forces (CAPF) entrance exam conducted by the UPSC (**Union Public Service Commission**) was approved.
- **Status of Women in the Indian Armed Forces (under the Ministry of Defence):**

- The **Army, Air Force and Navy began inducting women as short-service commission (SSC) officers in 1992.**
 - This was the first time when women were allowed to join the military outside the medical stream.
- One of the turning points for women in the military came **in 2015 when Indian Air Force (IAF) decided to induct them into the fighter stream.**
- In **2020, the Supreme Court (SC) ordered the central government to grant Permanent Commission (PC) to women officers in the Army's non-combat support units** on par with their male counterparts.
 - The SC had **rejected the government's stand of women officers' physiological limitations** as being based on "sex stereotypes" and "gender discrimination against women".
 - Women officers have been granted PC in the Indian Army in all the ten branches where women are inducted for SSC.
 - Women are **now eligible to occupy all the command appointments**, at par with male officers, which would open avenues for further promotions to higher ranks for them.
- In early **2021, the Indian Navy deployed four women officers on warships** after a gap of almost 25 years.
 - India's aircraft carrier INS Vikramaditya and fleet tanker INS Shakti are the warships that have been assigned their first women crews since the late 1990s.
- In **May 2021, the Army inducted the first batch of women into the Corps of Military Police, the first time that women joined the military in the non-officer cadre.**
 - However, Women are **still not allowed in combat arms like Infantry and Armored Corps.**
- **Issues with Women in Combat Role:**
 - **Physical Issues:** The natural physical differences in stature, strength, and body composition between the sexes make women more vulnerable to certain types of injuries and medical problems.
 - Pre-entry physical fitness levels tend to be lower in most women recruits compared with men.
 - Hence, when standards of training remain same for the two genders, there is a higher probability of injuries among the women.
 - **Physiological Issues:** The natural processes of menstruation and pregnancy make women particularly vulnerable in combat situations.
 - Lack of privacy and sanitation can result in an increased incidence of genitourinary infections.
 - The effect of prolonged deployment in difficult terrains and grueling physical activity on the reproductive health of women is still unknown.

- **Social and Psychological Issues:** Women tend to be more attached to their families, particularly their children.
 - This translates into greater mental stress and requirement of social support to sustain themselves during prolonged separations from family.
 - The issue of military sexual trauma (MST) and its effect on the physical and mental well-being of women combatants is grave.
- **Conventional Barriers:** Cultural barriers in society may be the biggest impediment to induction of women in combat.
 - Another major question that needs to be studied is the acceptance of orders of the women officers by the jawans.
- **Counter-Arguments:**
 - **Gender is not a Hindrance:** As long as an applicant is qualified for a position, one's gender is arbitrary. In the modern high technology battlefield, technical expertise and decision-making skills are increasingly more valuable than simple brute strength.
 - **Military Readiness:** Allowing a mixed gender force keeps the military strong. The armed forces are severely troubled by falling retention and recruitment rates. This can be addressed by allowing women in the combat role.
 - **Effectiveness:** The blanket restriction for women limits the ability of commanders in theater to pick the most capable person for the job.
 - **Tradition:** Training will be required to facilitate the integration of women into combat units. Cultures change over time and the masculine subculture can evolve too.
 - **Global Scenario:** When women officially became eligible for combat positions in the American military in 2013, it was widely hailed as another step towards the equality of sexes. In 2018, the UK military lifted a ban on women serving in close combat ground roles, clearing the way for them to serve in elite special forces.

Way Forward

- Women were being kept out of command posts on the reasoning that the largely rank and file will have problems with women as commanding officers. Thus, changes have to take place in the culture, norms, and values of not only the rank and file of the Army but also that of society at large. The responsibility to usher these changes lies with the senior military and political leadership.
- The United States, Israel, North Korea, France, Germany, Netherlands, Australia and Canada are among the global militaries that employ women in front-line combat positions.

- It is the right of every woman to pursue a career of her choice and reach the top since Equality is a constitutional guarantee.

30. Global Youth Tobacco Survey-4

In News

Recently, the **fourth round of Global Youth Tobacco Survey (GYTS-4)** was released by the Ministry of Health and Family Welfare (MoHFW).

Key Points

- **About:**
 - GYTS-4 was **conducted in 2019** by the **International Institute for Population Sciences (IIPS)** under the MoHFW.
 - **IIPS, Mumbai, formerly known as the Demographic Training and Research Centre (DTRC) till 1970, was established in July 1956** under the joint sponsorship of Sir Dorabji Tata Trust, the Government of India and the **United Nations**.
 - It serves as a regional centre for Training and Research in Population Studies for the the **Economic and Social Commission for Asia and the Pacific (ESCAP)** region.
 - The survey was designed **to produce national estimates of tobacco use among school going children aged 13-15 years** at the state level and Union Territory (UT) by sex, location of school (rural-urban), and management of school (public-private).
 - The **first three rounds** of GYTS were conducted in **2003, 2006 and 2009**.
 - A total of **97,302 students from 987 schools** participated in the survey.
- **Objective of the Survey:**
 - To provide **information on tobacco use, cessation, second-hand smoke, access and availability, exposure to anti-tobacco information, awareness and receptivity to tobacco marketing, knowledge, and attitudes.**
- **Major Findings:**
 - **Decline in Tobacco Use:**
 - There has been a **42% decline in tobacco use among 13-15 year-old school going children in the last decade.**
 - Nearly **one-fifth of the students aged 13-15 used any form of the tobacco product** (smoking, smokeless, and any other form) **in their life.**
 - **Gender Based Usage:**
 - Use of any form of tobacco was **higher among boys**. Prevalence of tobacco use among boys was 9.6% and among girls was 7.4%.
 - **State Wise Data:**

- Tobacco use among school going children was highest in Arunachal Pradesh and Mizoram and lowest in Himachal Pradesh and Karnataka.
- **Initiation Age:**
 - 38% of cigarettes, 47% of bidi smokers and 52% of smokeless tobacco users initiated the use before their tenth birthday.
 - The median age of initiation to cigarette and bidi-smoking, and smokeless tobacco use were 11.5 years, 10.5 years and 9.9 years respectively.
- **Awareness:**
 - 52% of students noticed anti-tobacco messages in the mass media and 18% of students noticed tobacco advertisements or promotions when visiting points of sale.
 - 85% of school heads were aware of the Cigarettes and Other Tobacco Products Act (COTPA), 2003 and 83% of schools were aware of the policy to display 'tobacco-free school' boards.
- **Measures towards Tobacco Control in India:**
 - **Adoption of WHO FCTC:**
 - India adopted the tobacco control provisions under World Health Organisation (WHO) Framework Convention on Tobacco Control (WHO FCTC).
 - **COTPA, 2003:**
 - It replaced the Cigarettes Act of 1975 (largely limited to statutory warnings- 'Cigarette Smoking is Injurious to Health' to be displayed on cigarette packs and advertisements. It did not include non-cigarettes).
 - The 2003 Act also included cigars, bidis, cheroots, pipe tobacco, hookah, chewing tobacco, pan masala, and gutka.
 - **Promulgation of the Prohibition of Electronic Cigarettes Ordinance, 2019:**
 - Which prohibits Production, Manufacture, Import, Export, Transport, Sale, Distribution, Storage and Advertisement of e-Cigarettes.
 - **National Tobacco Quitline Services (NTQLS):**
 - Tobacco Quitline Services have the potential to reach a large number of tobacco users with the sole objective to provide telephone-based information, advice, support, and referrals for tobacco cessation.
 - **mCessation Programme:**
 - It is an initiative using mobile technology for tobacco cessation.
 - India launched mCessation using text messages in 2016 as part of the government's Digital India initiative.
- **Global Initiatives:**

- **World No Tobacco Day-** 31st May.
- **WHO Framework Convention on Tobacco Control:** Governments adopt and implement the tobacco control provisions of the WHO Framework Convention on Tobacco Control (WHO FCTC).

Way Forward

- **The role of teachers is most crucial in creating awareness** among children and their parents about harm due to tobacco use and for shaping the attitude of children in this regard.
- The more and the **sooner awareness is created among children** about harms due to tobacco use, the **better will be the outcomes in terms of reduction in prevalence** of tobacco use among children and consequently among adults.
- **Harmful effects of tobacco use should be incorporated in school curricula** at various levels starting right from the primary school level.

31. Patent to an Artificial Intelligence system

In news: In a world first, South Africa grants patent to an artificial intelligence system

What is Artificial Intelligence (AI)?

- It describes the **action of machines accomplishing tasks** that have **historically required human intelligence**.
- It includes technologies like machine learning, pattern recognition, big data, neural networks, self algorithms etc
- AI involves complex things such as feeding a particular data into the machine and making it react as per the different situations. It is basically about **creating self-learning patterns** where the machine can give answers to the never answered questions like a human would ever do.
- AI is **different from hardware driven robotic automation**. Instead of automating manual tasks, AI performs frequent high volume computerised tasks reliably.

Benefits and Potential of AI

- **Multi-sectoral applications:** Already, AI has helped increase crop yields, raised business productivity, improved access to credit and made cancer detection faster and more precise.
- **Boosts Economic Growth:** It could contribute more than \$15 trillion to the world economy by 2030, adding 14% to global GDP. Google has identified over 2,600 use cases of “AI for good” worldwide.

- **Enabler for SGDs:** A study published in Nature reviewing the impact of AI on the Sustainable Development Goals (SDGs) finds that AI may act as an enabler on 134 – or 79% – of all SDG targets.

What's the issue with South Africa granting Patent?

- At first glance, a recently granted South African patent relating to a “food container based on fractal geometry” seems fairly mundane.
- The innovation in question involves interlocking food containers that are easy for robots to grasp and stack.
- On closer inspection, we notice that the **inventor is not a human being** – it is an artificial intelligence (AI) system called DABUS. The invention was entirely devised by the DABUS.
- The patent application listing DABUS as the inventor was filed in patent offices around the world, including the U.S., Europe, Australia, and South Africa. But only South Africa granted the patent (Australia followed suit a few days later after a court judgment gave the go-ahead).
 - The United States Patent and Trademark Office and the European Patent Office rejected these applications in the formal examination phase.

DABUS

- DABUS stands for “device for the autonomous bootstrapping of unified sentience”.
- It is an AI system created by Stephen Thaler, a pioneer in the field of AI and programming.
- The system simulates human brainstorming and creates new inventions.
- DABUS is a particular type of AI, often referred to as “creativity machines” because they are capable of independent and complex functioning.

‘Creativity machines’

- Creativity machines can process and critically analyse data, learning from it. This process is known as machine learning.
- Once the machine learning phase has occurred, the machine is able to “autonomously” create without human intervention.
- Prior to DABUS, Thaler built another AI which created novel sheet music, and which he credited with inventing the cross-bristle toothbrush design.

Why are some experts opposing this move?

- First, their respective patent laws only provide for human inventors – not AI – as indicated by the use of pronouns such as “him” and “her” in their text.

- Second, ideas, for the purposes of patents, require the element of “mental conception” – something of which only a human mind is capable.
- Finally, inventorship comes with rights, which AI is not legally capable of possessing.
- The critics argued that it was the incorrect decision in law, as AI lacks the necessary legal standing to qualify as an inventor.
- Critics feel that if South Africa instead had a substantive search and examination system in place, the DABUS patent application would have been rejected.

Conclusion

Given the policy environment and the vast potential of AI, the granting of the patent makes sense. Perhaps this will turn out to be a strategic masterclass by the South African office which will lead to a much more innovative nation.

32. The importance of the booster dose to plan ahead

The article suggests that a booster dose of the COVID-19 vaccine will help get India out of COVID-19's stranglehold and deal with the pandemic.

Context:

- The current COVID-19 vaccination schedules are only priming doses.
- This is expected to wane, as experienced with all previous non-replicating vaccines.

Booster dose

- A booster dose is an additional administration of a vaccine to make it fully effective or maintain the patient's immunity.
- Some vaccines need to be given in a series because a single shot is not sufficient.
- In the context of the COVID-19 vaccine, a booster shot would be taken a few months after the second jab as an added precaution.

The immune response:

- Vaccines can be classified as replicating live infectious vaccines, and, non-replicating non-infectious vaccines.
- At present 'live virus vaccines' administered by injection include measles, rubella, mumps and chickenpox vaccines.
 - The dose contains a few thousand live but attenuated viruses – they replicate in body tissues without producing overt disease.

- To gain immunity there is a need for more than one shot.
- The MMR (measles, mumps, and rubella) vaccine, for example, needs two doses.
- The final effective dose that stimulates the immune system may be billions or trillions of viruses and the stimulus sustained for days to weeks as the injected viruses continue to multiply within the human body.
- Therefore, immune responses to replicating live virus vaccines – both antibody and T-cell immunity – are robust and long-lasting.
- The non-replicating injected vaccines include nearly all others. Most common are diphtheria, pertussis (whooping cough), tetanus, hepatitis B, Haemophilus influenzae b, pneumococcal, human papilloma virus, inactivated poliovirus, inactivated hepatitis A vaccines.
 - For them, the dose confronted by the immune system is what is injected.
 - A tiny amount of antigen (micrograms) plus stabilisers, preservatives or adjuvants, chemicals and salts in minute quantities are administered.

What is the need for a booster dose?

- The initial expectation that the COVID-19 pandemic would be a short-lived one is proven wrong.
- The longer the virus is allowed to wreak havoc in India, the more people it will infect and the more likely it will evolve into new mutations.
- The most pressing issue right now is if these vaccinations will protect against the latest COVID-19 strains, or whether more booster shots will be needed.
- Another problem is that it is not known how long a COVID-19 vaccine can provide safety.
- Every non-replicating vaccine requires priming and boosting.
- Booster shots help the immune system remember how to recognize the pathogen that is causing the disease. It means that after a booster shot, the body is more likely to react quickly and effectively.
- To reach and maintain high and protective levels of antibody, there is a need for one or more injected “booster dose(s)”.
- There is further evidence that those who are elderly, men particularly, and those with organ transplants, cancer treatment or co-morbidity, have weaker primary antibody responses than their younger/normal counterparts.
- This implies that they may remain vulnerable to severe disease and death; they are in urgent need of booster dose to ensure and sustain protective immunity.

Way Forward:

- The science of immunology says that a booster dose delivered at an interval of at least four, preferably six to 12, months after the last priming dose, will stimulate the production of long-lived antibody-secreting cells, as well as 'long lived memory cells'.
- However, experts say more research is needed to see if it can help combat infections more effectively.
- Decisions should be based on data on immunological memory. This means that after two doses, the status of antibody concentration must be checked and after how long does it fall below a level where the third booster dose is needed.
- In India, there exists an ethical dilemma – as long as there is inadequate vaccine supply, everyone deserves priming doses before the highly vulnerable early vaccine recipients are offered booster doses.
 - India should accelerate vaccine procurement without counting the cost to avoid this.
- For India, a vaccination strategy of
 - First, completing two priming doses in all adults and children
 - Then a third dose to the special category
 - Later, one booster dose to everyone one year later might turn out to be a good strategy.
- Such a vaccination campaign needs meticulous planning and execution.

33. Indian Base in Mauritius' Agalega Islands

In News

Recently, Mauritius has denied a report that it has allowed **India to build a military base on the remote island of Agalega.**

- Earlier it was reported by a news broadcaster that an **airstrip and two jetties to house an Indian military base on Agalega island is under construction.**

Key Points

- **Background:**
 - In 2015, India signed an agreement with Mauritius for development of Agalega Islands.
 - It provided for **setting up and upgradation of infrastructure for improving sea and air connectivity enhancing capabilities of**

the Mauritian Defence Forces in safeguarding their interests in the Outer Island.

- However, since then, **there have been growing reports over the Indian naval and coastguard's interests in setting up transponder systems and surveillance infrastructure**, which has led to some local protests.
- **Agelega Project:**
 - Agelega project includes **the construction of a jetty, rebuilding, and extension of the runway, and building an airport terminal** on Agelega Island.
 - The USD 87 million projects are funded by India.
 - The project would add a new airport, port and logistics and communication facilities and potentially any other facilities related to the project.
 - The Agelega island is located in the **southwestern Indian Ocean**, 1,122 km north of Mauritius.
 - It has a total land area of 27 square miles (70 square km).
- **Significance:**
 - **Strengthen India's Presence:**
 - It will strengthen India's presence in the south-west Indian Ocean and **facilitate its power launch aspirations in the region.**
 - India considers the new base **necessary to facilitate both air and surface maritime patrols** in the south-west Indian Ocean and as an intelligence post.
 - **Geo-Economic:**
 - As a **"central geographic point"** Mauritius holds importance for commerce and connectivity in the Indian Ocean.
 - As a member of the **African Union, Indian Ocean Rim Association** and the Indian Ocean Commission, Mauritius is a stepping stone to multiple geographies.
 - As a founding-member of the **'Small Island Developing States'** (SIDS) it has been seen as a significant neighbour.
 - **Protect Foreign Trade:**
 - **95% of India's trade by volume and 68% of trade by value comes via the Indian Ocean.**
 - Nearly **80% of India's crude oil requirement is imported by sea via the Indian Ocean.** So presence in the Indian Ocean is of significance for India.
 - **Countering China:**
 - To counter China's **'String of Pearls'** which can prove to be a threat to our strategic interests, it became extremely necessary for us to have a presence in the larger **Indian Ocean Region.**
 - **Security And Growth for All in Region:**

- The project can be seen as a part of India's efforts to contribute to its neighbor's development stories under **SAGAR (Security And Growth for All in Region)**.
- The project can be seen as a way to increase cooperation between India and its neighbors.
- **Enhancing Security infrastructure of Mauritius:**
 - The project will **enhance the capabilities of Mauritius security forces** through upgradation in its infrastructure.
- **Challenges:**
 - **Protests from Opposition:**
 - Mauritius opposition has been raising **concerns regarding transparency in the project**.
 - The Mauritian government has **exempted the project from any Environmental license process (EIA clearances)**.
 - **Protests from local People:**
 - In 1965, before Mauritian independence, the UK split the Chagos islands from Mauritius, forcibly relocating the inhabitants.. Many Agalégans fear they could suffer a similar fate.
 - All major military powers like **France, China, US, and the UK have naval bases in the Indian Ocean** this is leading to fears that their peaceful island region will also be militarised.
 - **China Centric Policies:**
 - China's rapidly **growing presence in the northern part of the Indian Ocean** along with the deployment of Chinese submarines and ships in the region is a challenge for India.
 - **Obsessive Security Policy:**
 - An obsessively security-driven policy of India towards its neighbours has not helped in the past.
 - Certain **common challenges** like **climate change**, sustainable development and the **blue economy** should be **reconsidered in India's approach to Mauritius**.
- **Other Recent Developments:**
 - In July 2021, Prime Ministers of India and Mauritius jointly **inaugurated a Supreme Court building** in Maritius.
 - In February 2021, the Union Cabinet approved signing of the **Comprehensive Economic Cooperation and Partnership Agreement (CECPA)** between India and Mauritius.
 - India and Mauritius signed a **USD 100 million Defence Line of Credit** agreement
 - Mauritius would get a Dornier aircraft and an **Advanced Light Helicopter Dhruv** on lease which would build its maritime security capabilities.

- The two sides also discussed the **Chagos Archipelago** dispute, which was an issue of sovereignty and sustainable development before the **United Nations (UN)**.
 - In 2019, **India voted at the UN General Assembly in support of the Mauritian** position on the issue. India was one of the 116 countries that voted demanding that the UK end its “colonial administration” from the group of islands.
- India **delivered 1,00,000 Covishield vaccines** to Mauritius.

Way Forward

- Unlike the military bases run by other countries, the **Indian bases are the soft base which means locals can move through any Indian-made project**. So the local governments get more control over their domain, without diluting their sovereignty.
- India needs to **project itself as a credible and long-term partner** in a more persuasive manner by allaying the fears of all parties affected.
- Companies registered in Mauritius are the largest source of **Foreign Direct Investment (FDI)** into India, making it **crucial for India to upgrade its bilateral tax treaty, adopting the latest international practices** that prevent multinational companies from artificially shifting profits to low tax countries.
- As India takes an integrated view of its security cooperation in the south western Indian Ocean, **Mauritius is the natural node for it**. Therefore, it is important to take course-corrections in India’s **Neighbourhood First policy**.

34. Who is a Whip?

The party in the opposition has appointed two members as the party’s whips in the Upper House.

Whip

- A whip is an official of a political party whose task is to ensure party discipline in a legislature.
- This means ensuring that members of the party vote according to the party platform, rather than according to their own individual ideology or the will of their donors or constituents.
- Whips are the party’s “enforcers”.
- They try to ensure that their fellow political party legislators attend voting sessions and vote according to their party’s official policy.
- Members who vote against party policy may “lose the whip”, effectively expelling them from the party.

Whips in India

- In India, the concept of the whip was inherited from colonial British rule.
- Every major political party appoints a whip who is responsible for the party's discipline and behaviors on the floor of the house.
- Usually, they direct the party members to stick to the party's stand on certain issues and directs them to vote as per the direction of senior party members.

What happens if a whip is disobeyed?

- A legislator may face disqualification proceedings if she/he disobeys the whip of the party unless the number of lawmakers defying the whip is 2/3rds of the party's strength in the house.
- Disqualification is decided by the Speaker/Chairman of the house.

Limitations of whip

- There are some cases such as Presidential elections where whips cannot direct a Member of Parliament (MP) or Member of Legislative Assembly (MLA) to vote in a particular fashion.

Types of whips

There are three types of whips or instructions issued by the party

- **One-line whip:** One-line whip is issued to inform members of a party about a vote. It allows a member to abstain in case they decide not to follow the party line.
- **Two-line whip:** Two-line whip is issued to direct the members to be present in the House at the time of voting.
- **Three-line whip:** Three-line whip is issued to members directing them to vote as per the party line.

35. Squaring up to India's education emergency

With the pandemic having resulted in the school closures in India, impacting formal education, the article talks about the urgent need for concrete action on the education, health and livelihood fronts.

Issue:

- Federal countries such as the United States and Brazil implemented a variety of school closures and remote/in-person education policies in different jurisdictions.
- In contrast, most generalised and continuous school and university closures were imposed in India. All States, irrespective of the pattern of evolution of the novel coronavirus disease, followed a uniform policy, with fewer variations.
- This has given rise to the largest education emergency in the world.
- There is growing evidence of the harm caused to children and young adolescents in terms of learning losses as well as socio-emotional stress caused by prolonged school closures and of the ineffectiveness and inequalities of remote learning, even in technologically sophisticated environments.

The Oxford Covid-19 Government Response Tracker (OxCGRT):

- It collects systematic information on policy measures that governments have taken to tackle COVID-19.
- The different policy responses are tracked since 1 January 2020, cover more than 180 countries and are coded into 23 indicators, such as school closures, travel restrictions, vaccination policy.
- These policies are recorded on a scale to reflect the extent of government action, and scores are aggregated into a suite of policy indices.

1. Policy and indicators:

- The **Global Stringency Index** has tracked the closure of educational institutions across all countries since the beginning of the pandemic.
 - It is a composite measure based on nine response indicators including school closures, workplace closures, and travel bans, rescaled to a value from 0 to 100.
 - Indicators are coded according to the level of strictness of the policy.
 - It was created by the Oxford COVID-19 Government Response Tracker and is one of its metrics.
- A significant majority of the days between March 5, 2020, and July 20, 2021, were characterised as being at the most severe policy response requiring the closure of all types of educational institutions, according to the school closure indicator.
 - As a result, about 265 million schoolchildren have been taught exclusively through remote learning.
 - This is the largest number in any country for the longest period of time.
- This approach contrasted with the response in many other countries.

- Within a few months of the first lockdown of schools, Europe began resuming in-person schooling for certain groups of children or certain localities.

2. Schooling strategies:

- By March 2021, 51 countries had resumed in-person education.
- In 90 other countries, including many in Africa, multiple modalities, rotation of children for in-person classes and part remote/part in-person options were being offered.
- In the hybrid schooling models (combination of in-person and remote teaching), countries prioritised children of younger ages, of essential workers and those with special needs, for in-person learning.
- But in India, even as relaxations were made for public gatherings at festivals and elections, prior to the second wave, strategies for schooling were not systematically applied.
- When the school closure policy was relaxed in a few Indian States in 2021, only high schools were allowed to function to conduct public exams.
- The fear that the second wave generated has created apprehensions about schools becoming the epicentre of the next wave.
- Therefore, India is less prepared for school re-openings than many other countries.

The Indian experience:

Education and learning:

- During these hundreds of days of almost continuous lockout, the youngest and the poorest among Indian children, the Dalits, tribals and others, and lacking devices and electricity have struggled with online classes.
- Attendance data are neither available nor defined.
- Existing education inequalities are likely to increase.
- The national Digital Infrastructure for Knowledge Sharing (DIKSHA) portal of teacher resources claims that usage increased. However, the educational significance of these metrics is not clear.
- Studies and reports from the field by NGOs and individuals engaged with the National Coalition on the Education Emergency indicate that teachers, unprepared for remote teaching, forward social media links to their hapless students.
- Kerala provided basic access to remote learning by June 2020 to its four million students through a TV channel, which broadcast classes for all subjects in each grade.

- The State leveraged investments made over the last two decades in information technology for schools, including capacity building of teachers and teacher developed digital content.
- However, the universal switch to 'online' mode has proved challenging.

Other pandemic-related woes:

- Besides issues on the education and learning front, families have been ravaged by disease and job losses, teenagers are caring for the sick and younger siblings, or working for pay.
- Interruptions in child health services, early nutrition and mid-day meals have affected the growth and development of young children.
- While closed schools are seen as a commitment to children's safety, the higher risk of disease transmission by working children or the increase in malnutrition is ignored.

Way Forward:

- As schools reopen, offering a few standardised bridge courses and remedial classes may not make up for months of lost formal learning.
- India's education emergency demands action on the education, health and livelihood fronts.
- Each school should prepare a safe school opening and child support plan, and should receive technical help for this.
- Teachers must be prioritised for vaccinations.
- Local adaptations and flexibility are essential.
- An 'Education Emergency Room' should be set up in every district to coordinate, implement and monitor local plans. Coordination is necessary to:
 - Develop health and sanitation measures in schools
 - Ensure protocols are followed in public transportation
 - Encourage children who were not engaged with schools over the last year
 - Develop tools to help teachers make quick diagnoses of students' learning gaps
 - Implement school health and nutrition
 - Develop tools to accompany the educational trajectory of each student.
- Technology should be deployed safely for such purposes that identify and respond to children's needs.

36. An Indian sail to navigate the maritime environment

In news: PM Modi's address on August 9 at the UNSC High-Level Open Debate on "Enhancing Maritime Security: A Case For International Cooperation".

- He described the oceans as a common heritage for humankind and a lifeline for the future of the planet.

Need for Maritime Security

- With a long coastline and large island chains spread across the Indian Ocean, India has a natural seaward orientation, with key sea lanes of communication coursing through its surrounding seas.
- 90% of global trade is conducted on the high seas, for the simple reason that it continues to be the most cost effective mode of transport.
- Disruption of sea lanes of communication has National and global economic repercussions.
- Freedom of navigation and unimpeded commerce are key to the spread of prosperity.
- India's natural interests stretch across both the Indian and Pacific Oceans as reflected in its inclusive Indo-Pacific vision.

During the debate, PM Modi outlined 5 principles needed for global maritime security. The principles are

1. Removing barriers from legitimate maritime trade,
2. Encouraging responsible maritime connectivity,
3. Settling maritime disputes through peaceful means and on the basis of international law,
4. Jointly facing natural disasters and maritime threats created by non-state actors.
5. Preserving the maritime environment and resources.

Primacy of UNCLOS

- As President of the UN Security Council for the month of August, India's leadership in the debate on maritime security, that too at the level of the Prime Minister, has **strengthened its credentials as a key stake-holder in the maritime commons.**
- The Presidential Statement issued on the occasion highlights the commitment of the UN Security Council to international law.
- More relevantly, it emphasises the importance of the United Nations Convention on the Law of the Sea as the legal framework governing all maritime activity.

Conclusion

India's natural interests stretch across both the Indian and Pacific Oceans as reflected in its inclusive Indo-Pacific vision. No doubt, India's initiative will further the prospects for a stable and enduring maritime environment.

37. Retreat of Glaciers in Ladakh

In News

According to a recent study by the **Wadia Institute of Himalayan Geology (WIHG)**, the **Pensilungpa Glacier** located in Ladakh's Zaskar Valley is retreating due to **increase in temperature and decrease in precipitation** during winters.

- This study assesses the **impact of climate change on glaciers**. Earlier, the **UNDP (United Nations Development Programme)** also assessed that the **Hindu Kush Himalayan (HKH) mountain ranges could lose up to two-third of its ice** by 2100.
- **WIHG** is an **autonomous body** under the **Department of Science and Technology** located in Dehradun, Uttarakhand.

Key Points

- **Findings:**
 - **Rate of Decline:**
 - The glacier is now retreating at an average rate of **6.7 plus/minus 3 metre per annum**.
 - Glaciers may **retreat when their ice melts more quickly than snowfall can accumulate** and form new glacial ice.
 - **Debris Cover:**
 - There is a **significant influence of debris cover** on the **mass balance and retreat of the glacier's endpoint**, especially in summer.
 - Furthermore, the mass balance data for the three years (2016–2019) showed a negative trend with a small accumulation area ratio.
 - **Mass balance** of the glacier is the **difference between the snow accumulated** in the winter and the **snow and ice melted** over the summer.
 - **Impact of rise in the Air Temperature:**
 - **Due to continuous rise in the air temperature** in line with the global trend, the **melting would increase**, and it is possible that the **precipitation of summer periods at higher altitudes will**

change from snow to rain, and that may influence the summer and winter pattern.

- **Impact:**
 - **Impact on Human Life:**
 - It will impact the **water, food, energy security and agriculture, including soil loss** due to soil erosion, **landslides and floods**.
 - Glacial lakes may also form due to the accumulation of melted ice, which may result in **Glacial Lake Outburst Floods (GLOF)** and **even shifting global climate** by dumping freshwater into the oceans and so altering their circulation.
 - **Leaves Debris:**
 - Glacial retreat leaves boulders and masses of scraped-together rocky debris and soil called **glacial moraines**.
- **Initiative for Himalayan Ecosystem:**
 - **National Mission for Sustaining the Himalayan Ecosystem:** It is one of the **8 national missions** under the **National Action Plan on Climate Change (NAPCC)**.

Glacier

- **About:**
 - It is a **large, perennial accumulation** of crystalline ice, snow, rock, sediment, and water that originates on land and moves down slope under the influence of its own weight and gravity. They are **sensitive indicators of changing climate**.
 - Out of total water on Earth, **2.1% is in glaciers** while 97.2% is in the oceans and inland seas.
- **Condition of glacier formation:**
 - Mean annual **temperatures are close to the freezing point**.
 - **Winter precipitation** produces significant accumulations of snow.
 - **Temperatures** throughout the rest of the year **do not result in the complete loss of the previous winter's snow accumulation**.
- **Glacial Landforms:**

Zaskar Valley

- It is a **semi-arid region** situated in the **northern flank of the Great Himalayas** at an altitude of more than 13 thousand feet.
- The Zaskar Range **separates Zaskar from Ladakh** and the average height of the Zaskar Range is about 6,000 m.
- This mountain range acts as a **climatic barrier protecting Ladakh and Zaskar** from most of the monsoon, resulting in a pleasantly warm and dry climate in the summer.

- **Marbal Pass, Zojila Pass** in the extreme northwest of Zaskar range are two notable passes in the region.
- Many rivers start in different branches of this range flow northward, and join the great Indus River. These rivers include **Hanle River, Khurna River, Zaskar River, Suru River (Indus), and Shingo River.**
- The Zaskar river then takes a north-eastern course until it joins the Indus in Ladakh.

38. Supreme Court Collegium shows the way in judicial appointments

In News

For the first time ever, the Supreme Court Collegium led by the Chief Justice of India (CJI) recommended/selected as many as nine persons at one go to be appointed to the apex court.

Significance of the move

- It is a happy augury that the present CJI, Justice N.V. Ramana, could, along with his colleagues in the Collegium, select the judges within a short period of his assumption of office.
- It is a tough task to build a consensus around one person or a few persons, the CJI being the head of the Collegium, has an unenviable task in building that consensus.
- Therefore, it can be said without any fear of contradiction that the job of selecting as many as nine judges for appointment to the Supreme Court was done admirably well.
- The latest resolution of the Collegium gave effect to the multiple judicial pronouncements of the top court on the subject.
- The selection of three women judges, with one of them having a chance to head the top court, a judge belonging to the Scheduled Caste and one from a backward community and the nine selected persons belonging to nine different States, all point towards an enlightened and unbiased approach of the members of the Collegium.
- A needless controversy is sought to be raised by a section of the media about this round of selection citing the non-existing 'Rule of Seniority'.

Various norms to be followed in judicial appointment

1) Consideration of merit

- **Article 142 (1)** contains the concept of 'complete justice' in any cause or matter which the Supreme Court is enjoined to deliver upon.

- So, while selecting a judge to adorn the Bench, the fundamental consideration should be his/her ability to do complete justice.
- In the **Supreme Court Advocates-on-Record Association and Another vs Union of India (1993)**, the Court spelt out the parameters within which to accomplish the task of selecting candidates for appointment to the higher judiciary.
- The most crucial consideration is the merit of the candidates.
- The merit is the ability of the judge to deliver complete justice.

2) Plurality

- The nine judges who decided the above case were quite aware of these compelling realities.
- So, they said, "In the context of the plurastic [pluralistic] society of India where there are several distinct and differing interests of the people with multiplicity of religions, race, caste and community and with the plurality of culture, it is inevitable that all people should be given equal opportunity in all walks of life and brought into the mainstream."

3) Transparency

- India is perhaps the only country **where the judges select judges to the higher judiciary.**
- It is, therefore, necessary **to make the norms of selection transparent and open.**
- In 2019, a five judge Bench of the Supreme Court, of which the present CJI was also a member, laid emphasis on this point.
- The Bench observed: "There can be no denial that there is a vital element of public interest in knowing about the norms which are taken into consideration in selecting candidates for higher judicial office and making judicial appointments".

Conclusion

The Collegium has started doing its job. Now, it is time for the Government to match the pace and take the process of appointments to its logical conclusion at the earliest.

39. Gujarat Anti-Conversion Law

The Gujarat High Court this week stayed key provisions of The Gujarat Freedom of Religion (Amendment) Act, 2021 pertaining to marriages involving religious conversion of either of the two parties.

Anti-Conversion Law

- The legislation has amended the 2003 Gujarat Freedom of Religion Act.
- The amendment was brought in line with several similar laws enacted last year by right-wing-ruled states, starting with Uttar Pradesh.
- The laws seek to end conversion through unlawful means, specifically prohibit any conversion for marriage, even if it is with the consent of the individual except when a prior sanction is obtained from the state.
- Apart from UP and Gujarat, Madhya Pradesh and Himachal Pradesh too, have also enacted similar laws.

Controversial provisions

- **Vagueness:** It gives powers to the state to conduct a police inquiry to verify the intentions of the parties to convert for the purposes of marriage.
- **Burden of proof:** Section 6A reverses the burden of proof on the partner of the converted spouse to prove that he/she did not coerce the other spouse.
- **Intent of marriage:** Section 4 allows the aggrieved person, their parents, brother, sister, or any other person related by blood or marriage or adoption to file an FIR challenging the conversion and subsequent marriage.
- **Conversion as Allurement:** The law considers lawful conversions as “allurement” in vague.
- **Discrimination:** It defines over-broad terms; prescribes different jail terms based on gender; and legitimizes the intrusion of family and the society at large to oppose inter-faith marriages.

Issues with such laws

- **Stereotyping of lawful conversion:** The new anti-conversion laws shift the burden of proof of a lawful religious conversion from the converted to his/her partner.
- **Curb on individual freedom:** Legal experts have pointed out that the laws interfere in an individual’s agency to marry a partner from different faith and to choose to convert from one’s religion for that purpose.
- **Interference of state:** Apart from being vague and sweeping, the laws also test the limits to which the state can interfere in the personal affairs of individuals.
- **Violative of FRs:** The freedom to propagate one’s religion (A25) and the right to choose a partner are fundamental rights (A21) that the new anti-conversion laws impinge upon.

What has the Gujarat High Court held?

- A Division Bench of the Gujarat High Court has granted an interim stay on certain provisions of the amendment that interfere with inter-faith marriages.
- It has held that the bill interferes with the intricacies of marriage including the right to the choice of an individual, thereby infringing Article 21.
- The interim stay on certain provisions will have to be confirmed when the larger challenge is decided.

What was the government's defence?

- The state government had argued that the law did not prohibit all inter-faith marriages, but only the ones based on fraud and coercion.
- To buttress its submission, Advocate General had argued that the Act must be read as a whole to interpret the provision, and the provision alone could not be read by itself.
- However, the court said that the wider interpretation would happen at a later stage, and stayed the provisions for the time being. A larger challenge would determine the fate of the law eventually.

Significance of the ruling

- The HC ruling, although preliminary, comes as a relief to interfaith couples from being harassed.
- The reading could have a bearing on challenges pending in other HCs (namely in MP, UP, Himachal etc).
- However, its real impact on the ground could be limited, as larger constitutional nuances are often difficult to permeate, especially when it is not a final and binding verdict.

40. Focusing on diseases sidelined by COVID-19

Background:

Non-Communicable Diseases:

- **Non-communicable diseases (NCDs) are medical conditions or diseases that are not caused by infectious agents.** These are chronic diseases of **long duration**, and generally with **slow progression** and are the **result of a combination of genetic, physiological, environmental and behavioural factors.**
- NCDs are the **silent killers of our generation.**

- Nearly **71% of all deaths worldwide occur due to non-communicable diseases (NCDs)** such as hypertension, diabetes, cardiovascular diseases, chronic respiratory diseases, and cancer.
- One out of every four deaths occurs due to cardiovascular diseases, especially among younger patients. **In the Indian subcontinent, there is early onset and rapid progression of such diseases, and a high mortality rate.** Those with NCDs find that productive years of life are lost and there is high-out-of-pocket expenditure on treatment.

Impact of the COVID-19 pandemic on NCDs:

Increased vulnerability:

- Available evidence points to the increased vulnerability of people with pre-existing NCDs to COVID-19 infection.
- **The outcomes in COVID-19 patients with pre-existing cardiovascular disease risk factors or disease and diabetes can be worse than others.**

Disruption of NCD services:

- The COVID-19 pandemic has led to the disruption of NCD services.
 - The staff working in the area of NCDs have been reassigned to COVID-19 work. This has led to a **lack of staff for NCDs treatment.**
 - There is a **severe shortage of medicines and diagnostics services** available for NCDs.
 - The decreased availability of public transport has led to cancellations of planned treatments.
- The pandemic has severely **disrupted primary healthcare systems which form a critical part of the screening and management of NCDs.** As per a World Health Organization (WHO) survey conducted in May 2020, low-income countries were the most affected by this disruption.

Psychological impact:

- Lockdowns and reduced physical interactions led to loneliness, especially in the geriatric population. This resulted in **mental health disorders such as anxiety and depression.**
- The subsequent increase in **consumption of alcohol and tobacco and adoption of an unhealthy diet** increases the exposure to NCD risk factors.
 - Tobacco consumption has been linked to hypertension, cardiovascular diseases and stroke.

Recommendations:

- A paradigm shift is the need of the hour to **tackle the silent epidemic transition to NCDs.**

Attention to NCDs:

- The national and state health policymakers need to give requisite attention to the NCDs.
- **The National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke** needs to be expanded and adequately funded.
 - To address the challenge posed by NCDs, the National Health Mission launched the National Programme for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases and Stroke, in 2010, focusing on strengthening infrastructure, promoting good health, human resource development, early diagnosis, management and referral.

Prevention strategy:

- There have to be campaigns for **promoting a healthy lifestyle.**
- The importance of **physical activity and mental health** needs to be emphasized.

Strengthening primary health care system:

- The primary health system needs to be strengthened to **prevent, diagnose and provide care for NCDs.**
 - PHC system can tackle up to 80% of health needs and can reduce the need for specialized health care services. Thus strengthening the primary health infrastructure will help lessen the burden on hospitals.
- Primary healthcare systems must be **adequately resourced and trained** to ensure that persons at risk of NCDs receive appropriate screening, counselling and treatment. The administrations should **ensure essential NCD medicines and basic health technologies in all primary healthcare facilities.**
- **Screening for NCDs at the grassroots level** and the delivery of locally relevant and contextual messages for health promotion and prevention of NCDs will be critical interventions in the fight against NCDs. The **ASHA workers** can be appropriately trained and equipped to play this role.
 - As part of Ayushman Bharat, the Government is supporting the States for **strengthening Sub Centres and Primary Health Centres as Health and Wellness Centres** for the provision of comprehensive primary care that includes preventive and health promotion at the community level with a continuum of care approach.

Use of telemedicine:

- There is the need to ensure that those at the highest risk continue receiving treatment for NCDs in spite of any future lockdowns or travel regulations.
- Telemedicine can help maintain a degree of continuum in healthcare services disrupted by the pandemic. Also, it can help reduce travel expenses, thus lowering patients' expenditure burden.

Curtail tobacco and alcohol consumption:

- India's response plan to address the growing burden of NCDs must include tobacco and alcohol cessation activities.

Additional information:

- In 2013, the **WHO Global Action Plan for the Prevention and Control of NCDs 2013–2020 (Global NCD Action Plan)** was adopted by the World Health Assembly to strengthen global and national responses to prevent and control NCDs.
- The Global NCD Action Plan includes a global monitoring framework and nine voluntary global targets to be attained by 2025.
- The World Health Organization has set a **target of 25% relative reduction in overall mortality from cardiovascular diseases, cancer, diabetes, or chronic respiratory diseases by 2025.**

GS 3 : Economy, Science and Technology, Environment

1. FM unveils Rs. 6 lakh-cr. asset monetisation plan

Context:

- Launch of the **National Monetisation Pipeline (NMP) for Central ministries and public sector entities** by the Union Minister for Finance and Corporate Affairs.

Details:

- The pipeline has been **developed by NITI Aayog**, in consultation with infrastructure line ministries, based on the mandate for **'Asset Monetisation' under Union Budget 2021-22**.
 - Union Budget 2021-22 had identified monetisation of operating public infrastructure assets as a key means for sustainable infrastructure financing.
 - The NMP is in line with the **government's strategic divestment policy**, under which the state will retain presence in only a few identified sectors with the rest privatized.
- NMP is envisaged to serve as a medium-term roadmap for identifying potential monetisation-ready projects, across various infrastructure sectors including roads, ports, airports, railways, warehousing, gas & product

pipeline, power generation and transmission, mining, telecom, stadium, hospitality and housing.

- Under the plan, **private firms can invest in projects for a fixed return using the InvIT route as well as operate and develop the assets for a certain period.** Some assets such as warehouses and stadiums can also be given on a long-term lease for operations. Thus it will involve the **participation of the private firms** in the infrastructure sector.
- The objective of this initiative is to enable '**Infrastructure Creation through Monetisation**'.
- The programme will include **only brownfield assets** that are either languishing or have not been fully monetised. There would be no transfer of ownership of assets or land. The **primary ownership of the assets will continue to be with the Government** with the framework envisaging hand back of assets to the public authority at the end of transaction life.
- NMP estimates aggregate monetisation potential of **Rs 6.0 lakh crores** through core assets of the Central Government, over a **four-year period, between 2021-22 and 2024-25.**
 - The top 5 sectors include roads, railways, power, oil & gas pipelines and telecom.
 - The central government has set a goal of Rs 88,000 crores to be monetised in 2021-22, adding that each ministry has been given an annual target.
- As part of a multi-layer institutional mechanism for overall implementation and monitoring of the Asset Monetization programme, an **empowered Core Group of Secretaries on Asset Monetization (CGAM)** under the chairmanship of Cabinet Secretary has been constituted.
- Additionally, the Finance Minister has stated that the **Centre will incentivise states to undertake disinvestment of PSUs and asset monetisation** and outlined a plan.
The central government has set aside Rs 5,000 crore to incentive state governments to monetise their assets.

Significance:

Streamline monetization:

- The NMP will help provide a roadmap of the programme for public asset owners; along with visibility on potential assets to the private sector. It will help **boost investors' confidence** by providing sufficient clarity on the number, size and type of assets that would be made available in the market.
- Thus the NMP will help streamline the monetization plans of the government.

Unlock value in idle or under-performing public assets:

- The programme will help **unlock the value of government investment and public money in infrastructure** by tapping institutional and long-term patient capital.
- The programme will help **generate greater value for the existing assets and unlock resources for the economy.**

Alternate funding mechanism:

- Asset monetisation will help **tap private sector investment** for new infrastructure creation.
 - The estimated value envisaged under NMP corresponds to about 5.4 per cent of the total infrastructure investment envisaged under the NIP which is Rs 111 lakh crore and 14 per cent of the proposed outlay for the Centre (Rs 43 lakh crore).
- NMP will help **improve liquidity** to increase expenditure in infrastructure by the government.
- The success of the plan could also **enable the recycling of funds** which will be critical for the revival of infrastructure investment in India.
- Along with the privatisation of state-run companies, the monetization route will allow the government to **raise resources even without losing ownership of the assets.**

Accelerate infrastructure development:

- The money raised through monetization can be leveraged for further public investments in the infrastructure sector and it will thus accelerate infrastructure development in India.
- The asset monetisation pipeline takes the National Infrastructure Pipeline to the next phase by pitching for **higher public-private partnership.**

Benefits of involving the private sector:

- The programme, apart from being a viable funding mechanism, will also bring in a paradigm **shift in infrastructure operations, augmentation and maintenance** considering the private sector's resource efficiencies and its ability to dynamically adapt to the evolving global and economic reality.
- Thus the Asset Monetisation programme can lead to **improved infrastructure quality and operations and maintenance.**

Spill-over effects of increased public expenditure in infrastructure:

- The increased infrastructure investment, apart from ensuring access to high-quality and affordable infrastructure to the common citizen of India, will also **create employment opportunities and enable high economic growth**. This becomes all the more significant in the backdrop of the pandemic.
- Thus the NMP if implemented well could provide a much needed **positive trigger for the economic revival**.

Conclusion:

- Though the NMP is a step in the right direction, meticulous **planning, project packaging, and coordination will be needed** to address the underlying structural and legacy issues to help realize the potential benefits of NMP.

2. Growth needs steps beyond reforms

Why 1991 stands out as a watershed year in the economic history of India

- This was the year in which the economy was faced with a severe **balance of payments crisis**.
- In response, we launched a wide-ranging economic programme to reform, restructure and modernise the economy.
- The break with the past came in **three important ways**:
- **Dismantling of licence and permit requirements**: The vast network of licences, controls and permits that dominated the economic system was dismantled.
- **Redefining the role of the state**: Changes were made by redesigning the role of the state and allowing the private sector a larger space to operate within,
- **Integration with world economy**: The inward-looking foreign trade policy was abandoned and the Indian economy was integrated with the world economy and trade.

Judging the performance of the economy after liberalisation

- It is appropriate to look at three broad parameters to judge the performance of the economy after liberalisation – **growth rate, current account deficit and poverty reduction**.

1) Growth rate after 1991

- Between 1992-93 and 2000-01, GDP at factor cost grew annually by 6.20%.
- Between 2001-02 and 2010-11, it grew by 7.69% and the growth rate between 2011-12 and 2019-20, was 6.51%.
- **Best growth rate**: The best performance was between 2005-06 and 2010-11 when showing clearly what the **potential growth rate** of India was.

- This is despite the fact that this period included the **global crisis year of 2008-09**.

2) Foreign reserves

- **BoP:** The **balance of payments** situation had remained comfortable.
- Most of the years showed a small deficit.
- The exceptions were 2011-12 and 2012-13 when the current account deficit exceeded 4%.
- This was taken care of quickly.
- **Forex reserves:** Foreign exchange reserves showed a substantial increase and **touched \$621 billion as of last week**.
- The opening up of the external sector, which included liberal trade policy, market-determined exchange rate and a liberal flow of external resources, has greatly strengthened the external sector.

3) Poverty ratio

- Going the Tendulkar expert group methodology, the overall poverty ratio came down from **45.3% in 1993-94 to 37.2% in 2004-05** and further down to 21.9% in 2011-12.
- The post-reform period up to 2011-12 did see a significant reduction in poverty ratio because of **faster growth supplemented by appropriate poverty reduction programmes** such as the Rural Employment Guarantee Scheme and the Extended Food Security Scheme.
- With the decline in growth rate since then and with negative growth in 2020-21, **this trend must have reversed**, i.e. the poverty rate may have increased.

Way forward

- Growth requires more than reforms. Reforms are, in the words of economists, only a necessary condition. It is not sufficient.
- **Need to increase investment:** It is the decline in investment rate of nearly five percentage points since 2010-11 that has led to the progressive decline of the growth rate.
- Reforms supplemented by a careful nurturing of the investment climate are needed to spur growth again.
- **Reform agenda must continue:** First of all, there is a need to move in the same direction in which we have been moving in the past three decades.
- Policymakers should identify the sectors which need reforms in terms of creating a competitive environment and improving the **performance efficiency**.
- From this angle, we need to take a relook at the financial system, power sector and governance. Centre and States must be joint partners in this effort.

- Second, in terms of government performance, there should be **increased focus on social sectors** such as health and education.

Conclusion

Growth and equity must go together. They must not be posed as opposing considerations. They are truly interdependent. It is only in an environment of high growth, equity can be pushed aggressively.

3. Vehicle Scrappage Policy, 2021

The launch of India's vehicle scrapping policy or the Voluntary Vehicle-Fleet Modernization Programme (VVMP) seeks to usher in a new age of what it means to own and use an automobile in India.

Vehicle Scrappage Policy: Key Features

- **Fitness testing:** The government plans to set up between 450-500 automated vehicle fitness testing stations across India on a PPP basis. Private vehicles – which are over 20 years old – will have to undergo fitness tests, at an estimated cost of Rs 300-400 per test.
- **Scrappage:** A total of 60-70 vehicle scrapping centres will also be built, situated no further than 150-200 kilometres away from any location in India.
- **Green Tax:** Vehicles that pass the automated tests will be subjected to a 'green tax', which will see owners shell out an additional 10 per cent to 25 per cent of road tax at the time of the renewal of the vehicle's fitness certificate, along with re-registration fees.
- **Penalties:** Those who choose to drive a vehicle that has failed the automated test will face substantial penalties, and such vehicles could also be impounded.
- **Choice of owners:** The scrappage policy leaves the choice of scrapping to the owner of the vehicle, with Gadkari saying the automated tests will place emphasis on vehicle fitness, and not its age.

Implementation plan

- The implementation of the vehicle scrappage policy in India is still some time away.
- Initially, it will be heavy commercial vehicles that will need to undergo fitness tests starting 1 April, 2023.
- Fitness tests will be made mandatory for all other types of vehicles from 1 June, 2024, in a phased manner.

Why need such policy?

- **Clean mobility:** More than one crore vehicles on India's roads contribute greatly to rising pollution levels, as well as their tendency to be less fuel-efficient towards the end of their life.
- **Reducing oil import:** The promotion of clean mobility necessitates a reduction in the country's fuel import bills, and a reduction in emissions is a pressing need at this time.
- **Road safety:** Such vehicles are also inherently unsafe and can be a threat to their occupants as well as other road users.
- **Consumer benefits:** Scrapping an old vehicle and replacing it with a new one will bring substantial monetary benefits for motorists, in addition to reducing emissions and enhancing fuel efficiency.

Benefits for a vehicle owner

- Once the vehicle has been scrapped, the owner will receive anywhere between four to six percent of their old vehicle's ex-showroom price, and a scrapping certificate.
- This will make the individual eligible for a road tax rebate of 25 percent, a registration fee waiver and a discount of five percent of a new vehicle's ex-showroom cost, offered by the vehicle manufacturer.
- This will essentially make a new vehicle cheaper for someone who has scrapped their old vehicle, with potential discounts in the range of Rs 30,000 (for a car costing Rs 6 lakh) to Rs 50,000 (for a car costing Rs 10 lakh).

What are the other positives?

- **Investment and Employment:** The policy will attract investment of over Rs 10,000 crore, and generate 50,000 jobs in the country.
- **Recycling:** Proper recycling of raw materials obtained from the scrapping will help reduce the import of materials such as aluminium, copper, steel and more.
- **Vehicle price control:** With the potential to recycle up to 99 percent of materials used in a vehicle, raw material costs are estimated to drop by as much as 40 percent.
- **Transition to EVs:** There's also a possibility to derive materials needed for local production of lithium-ion batteries from scrapping older vehicles, which could help drive the growth of the EV business.
- **Circular Economy:** A circular economy depends on reuse, sharing, repair, refurbishment, remanufacturing and recycling of resources to create a closed-loop system, minimizing the use of resources, generation of waste, pollution and carbon emissions.

- **Demand boost:** Globally, a scrappage policy has been followed by a boost in demand in the auto manufacturing sector, especially in Europe and the US.

4. Four new Wetlands added to Ramsar list

What are Wetlands?

- A wetland is a distinct ecosystem that is flooded by water, either permanently or seasonally, where oxygen-free processes prevail.
- The primary factor that distinguishes wetlands from other land forms or water bodies is the characteristic vegetation of aquatic plants, adapted to the unique hydric soil.

Significance of Wetlands

- Wetlands provide a wide range of important resources and ecosystem services such as food, water, fibre, groundwater recharge, water purification, flood moderation, erosion control and climate regulation.
- They are, in fact, are a major source of water and our main supply of freshwater comes from an array of wetlands which help soak rainfall and recharge groundwater.
- They provide many societal benefits: food and habitat for fish and wildlife, including threatened and endangered species; water quality improvement; flood storage; shoreline erosion control; economically beneficial natural products for human use; and opportunities for recreation, education, and research etc.

Which are the new sites added to the Ramsar List?

- Thol and Wadhvana from Gujarat and
- Sultanpur and Bhindawas from Haryana

With this, the number of Ramsar sites in India are 46 and the surface area covered by these sites is now 1,083,322 hectares.

(1) Bhindawas Wildlife Sanctuary

- Bhindawas WLS, the largest wetland in Haryana is a human-made freshwater wetland.
- Over 250 bird species use the sanctuary throughout the year as a resting and roosting site.
- The site supports more than ten globally threatened species including the endangered Egyptian Vulture, Steppe Eagle, Pallas's Fish Eagle, and Black-bellied Tern.

(2) Sultanpur National Park

- Sultanpur NP from Haryana supports more than 220 species of resident, winter migratory and local migratory waterbirds at critical stages of their life cycles.
- More than ten of these are globally threatened, including the critically endangered sociable lapwing, and the endangered Egyptian Vulture, Saker Falcon, Pallas's Fish Eagle and Black-bellied Tern.

(3) Thol Lake Wildlife Sanctuary

- Thol Lake WLS from Gujarat lies on the Central Asian Flyway and more than 320 bird species can be found here.
- The wetland supports more 30 threatened waterbird species, such as the critically endangered White-rumped Vulture and Sociable Lapwing , and the vulnerable Sarus Crane, Common Pochard and Lesser White-fronted Goose.

(4) Wadhvana Wetland

- Wadhvana Wetland from Gujarat is internationally important for its birdlife as it provides wintering ground to migratory waterbirds, including over 80 species that migrate on the Central Asian Flyway.
- They include some threatened or near-threatened species such as the endangered Pallas's fish-Eagle, the vulnerable Common Pochard, and the near-threatened Dalmatian Pelican, Grey-headed Fish-eagle and Ferruginous Duck.

5. General Insurance Business (Nationalization) Amendment Bill, 2021

The General Insurance Business (Nationalization) Amendment Bill, 2021, was recently passed by both houses of parliament.

What is the amendment?

- The Bill seeks to amend the General Insurance Business (nationalization) Act, 1972.

What is the GIB Act?

- The 1972 Act set up the General Insurance Corporation of India (GIC).
- The businesses of the companies nationalized under the Act were restructured in four subsidiary companies of GIC: (i) National Insurance, (ii) New India Assurance, (iii) Oriental Insurance, and (iv) United India Insurance.

- The Act was subsequently amended in 2002 to transfer the control of these four subsidiary companies from GIC to the central government, thereby making them independent companies.
- Since 2000, GIC exclusively undertakes the reinsurance business.

Key highlights of the Amendment Bill

- **Government shareholding threshold:** The Act requires that shareholding of the central government in the specified insurers (the above five companies) must be at least 51%. The Bill removes this provision.
- **Change in definition of general insurance business:** The Act defines general insurance business as fire, marine or miscellaneous insurance business.
- **Transfer of control from the government:** The Bill provides that the Act will not apply to the specified insurers from the date on which the central government relinquishes control of the insurer.
- **Notifying terms and conditions:** The Bill provides that schemes formulated by the central government in this regard will be deemed to have been adopted by the insurer.
- **Liabilities of directors:** The Bill specifies that a director of a specified insurer, who is not a whole-time director, will be held liable only for certain acts.

Significance of the bill

- **De-regulation:** The move is part of the government's strategy to open up more sectors to private participation and improve efficiency.
- **Capital infusion:** Privatization will bring in more private capital in the general insurance business and improve its reach to make more products available to customers.
- **Insurance coverage:** This will enhance insurance penetration and social protection to better secure the interests of policyholders and contribute to faster growth of the economy

Concerns of the opposition

- The Opposition is of the view that privatization will be detrimental to the interests of the public.
- They wanted a proper discussion on the pros and cons of the Bill rather than passing it in a hurry.
- They wanted an expert committee of the Cabinet to study the impact before passing the legislation.
- They are worried about large-scale employee layoffs and short-term investors entering and exiting these entities once the Act comes into force.

6. General Insurance Business (Nationalisation) Amendment Bill, 2021

Why in News

Recently, the **General Insurance Business (Nationalisation) Amendment Bill, 2021**, was passed by **both the houses of the parliament**.

- It seeks to amend the **General Insurance Business (Nationalisation) Act, 1972**.

Key Points

- **Key Provisions of the Bill:**
 - **Government Shareholding Threshold:**
 - It seeks to remove the **mandatory requirement of the Central government holding not less than 51% of the equity capital** in a specified insurer.
 - **Defines General Insurance Business:**
 - It defines **general insurance business as fire, marine or miscellaneous insurance business**.
 - It excludes **capital redemption and annuity from certain businesses** from the definition.
 - **Capital redemption insurance** involves payment of a sum of money on a specific date by the insurer after the beneficiary pays premiums periodically.
 - **Under annuity certain insurance**, the insurer pays the beneficiary over a period of time.
 - **Transfer of Control from the Government:**
 - It **will not apply to the specified insurers** from the date on which the **central government relinquishes control of the insurer**. Here control means:
 - Power to appoint a majority of directors of a specified insurer.
 - To have power over its management or policy decisions.
 - **Empowers the Central Government:**
 - It empowers the **central government to notify the terms and conditions of service of employees** of the specified insurers.
 - It provides that **schemes formulated by the central government** in this regard will be deemed to have been adopted by the insurer.
 - The board of directors of the insurer may change these schemes or frame new policies.
 - Further, powers of the central government under such schemes will be transferred to the board of directors of the insurer.

- **Liabilities of Directors:**
 - It specifies that a **director of a specified insurer**, who is **not a whole-time director**, will be **held liable only for certain acts** which includes the acts which have been committed:
 - With his knowledge, attributable through board processes.
 - With his consent or connivance or where he had not acted diligently.
- **Significance:**
 - **Private Capital:**
 - It will **bring in more private capital in the general insurance business** and **improve its reach** to make more products available to customers.
 - **Improved Efficiency:**
 - The move is part of the **government's strategy to open up more sectors to private participation and improve efficiency.**
 - **Enhance Insurance Penetration:**
 - It will **enhance insurance penetration and social protection** to better secure the interests of policyholders and **contribute to faster growth of the economy**
- **Concerns:**
 - **Affect the Workers:**
 - It will affect the **insurance sector in the country** and the **workers engaged with the General Insurance Company.**
 - **Total Privatisation:**
 - It may lead to **total privatisation of general insurance companies.** Privatising would lead to opening a Pandora's Box, throwing into insecurity 30 crore policyholders.
 - **Governments Loss:**
 - The **government will also lose money** by way of dividend in the proportion of shares being offered.
 - **Pensions Safety:**
 - The pensioners in the four public sector general insurance companies were worried about the **safety of their future pensions when the central government privatised one of them.**
 - The pension fund is **dependent on the contributions of the employees** so that Pension Trust can pay the pensioners.

General Insurance Business (Nationalisation) Act, 1972:

- The Act was enacted to **nationalise all private companies undertaking general insurance business in India.** It set up the **General Insurance Corporation of India (GIC).**
 - **GIC is an Indian nationalised reinsurance company.**

- The businesses of the companies nationalised under the Act were **restructured in four subsidiary companies of GIC**:
 - National Insurance.
 - New India Assurance.
 - Oriental Insurance.
 - United India Insurance.
- The Act was subsequently **amended in 2002** to transfer the **control of these four subsidiary companies from GIC to the central government**, thereby making them **independent companies**.
- Since 2000, **GIC exclusively undertakes reinsurance business**.

7. An urban jobs safety net

The article says that there is a need to formulate a wage employment-based national urban livelihood scheme similar to Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme.

Issue:

- Pandemic has posed major challenges and one among them is the choice of saving lives versus protecting livelihoods.
- According to the World Economic Outlook report of April 2021 of the International Monetary Fund (IMF), almost all countries, except China, experienced an economic contraction in 2020.
- The global GDP shrunk by 3.3%. India's GDP plummeted by 8%. In contrast, China posted a growth of 2.3%.
- As per the report, 95 million people have fallen into the ranks of the extreme poor category.
- The unemployment rate is also on the rise across the globe.
- As per the Centre for Monitoring Indian Economy's estimates, the unemployment rate in India peaked at 23.5% in April 2020 before falling to 6.9% in February 2021.

Rural-urban livelihood divide:

- As the economy decelerates, the challenge is to minimise livelihood losses.
- Traditionally, governments have addressed this issue from a sectoral viewpoint.
- With contemporary realities, there is a need to approach this from a rural-urban perspective.
 - When there is an economic shock, it is essential to provide people with formal access to a livelihood safety net.

- The livelihood safety net must have comprehensive coverage.
- Unfortunately, the livelihood safety net exists only in the rural areas through the MGNREGS.
- Urban India does not have such a livelihood program.
- Though the Indian government operates the National Urban Livelihoods Mission the scheme does not have guaranteed wage employment.
 - It is only focused on self-employment through skill up-gradation and credit linkages through banks.
- It was until recently considered that migration in India was essentially a rural to urban phenomenon. This pandemic has demolished that myth.
- Huge migration of labour during the first wave of the pandemic brings to light the rural-urban livelihood security divide.

Himachal Pradesh Case Study:

- A few States have experimented with a wage employment-based urban livelihood scheme.
- Himachal Pradesh (H.P.) launched the Mukhya Mantri Shahri Aajeevika Guarantee Yojana (MMSAGY) in 2020.
 - It provided 120 days of guaranteed wage employment to every household at minimum wages in FY 2020-21, in urban areas.
 - Any adult member of a household, less than 65 years of age, residing in the jurisdiction of the urban local body (ULB) and willing to engage in unskilled work at projects being executed or in sanitation services being provided by the municipality could register under the scheme.
 - A job card was issued to the beneficiary within seven days of registration and employment is provided within a fortnight. Otherwise, the beneficiary is eligible to be compensated at a rate of ₹75 per day.
- The government funded the wage component from the grants already available to ULBs under the State and Central Finance Commissions.
- In a year of its operation, a quarter-million man-days, benefiting about 3% of the total urban households in H.P., were generated.
- If the scope of MMSAGY is broadened to include muster-roll based works, other municipal services, etc., it could enhance livelihood opportunities.

Way Forward:

- An urban livelihood scheme can be launched within the existing fiscal space in the Urban Local Bodies.
- Besides, the Union and States could provide resources for such a scheme collectively.

- Separate minimum wages for rural and urban areas are not a cause of migration to urban areas as the higher cost of living in urban areas has an offsetting effect.
- The focus must shift from asset creation to service delivery.
 - Restricting the scheme to asset creation or wage-material ratios may not prove to be effective in urban areas.
 - The focus should be on enhancing the quality of municipal services.

Conclusion:

- The migration tragedy and the economic slowdown have highlighted the need for a livelihood program with a guaranteed wage net in urban India.
- The rural-urban livelihood and security divide must be bridged to minimise the livelihood loss.
- A livelihood scheme is like an 'economic vaccine' and will protect people against unemployment. It should be administered at the national level rather than at the State level.

8.Kaziranga National Park: Assam

Why in News

Kaziranga has become **the first in the country to use satellite phones**, which are generally used by the law-enforcing agencies.

- The satellite phones **will give an edge to the forest personnel over the poachers and also during emergencies like floods.**
- **The public is barred from using satellite phones in India.** Satellite phones can connect from anywhere as they are directly connected to satellites around the world and do not depend on terrestrial mobile networks, as cellphones do.

Key Points

- **Location:**
 - It is **located in the State of Assam** and covers 42,996 Hectare (ha). It is the **single largest undisturbed and representative area in the Brahmaputra Valley floodplain.**
- **Legal Status:**
 - It was declared as a **National Park in 1974.**
 - It has been declared a **Tiger Reserve since 2007.** It has a total tiger reserve area of 1,030 sq km with a core area of 430 sq. km.
- **International Status:**
 - It was declared a **UNESCO World Heritage Site** in 1985.

- It is recognized as **An Important Bird Area** by Bird Life International.
- **Biodiversity:**
 - It is the home of the world's most **one-horned rhinos**.
 - Pobitora Wildlife Sanctuary has the highest density of one-horned rhinos in the world and second highest number of Rhinos in Assam after Kaziranga National Park.
 - Much of the focus of conservation efforts in Kaziranga are focused on **the 'big four' species – Rhino, Elephant, Royal Bengal Tiger and Asiatic water buffalo**.
 - The 2018 census had yielded 2,413 rhinos and approximately 1,100 elephants.
 - As per the figures of **tiger census** conducted in 2014, Kaziranga had an estimated 103 tigers, the third highest population in India after **Jim Corbett National Park** (215) in Uttarakhand and **Bandipur National Park** (120) in Karnataka.
 - Kaziranga is also **home to 9 of the 14 species of primates** found in the Indian subcontinent.
- **Rivers and Highways:**
 - **National Highway 37** passes through the park area.
 - The park also has more than **250 seasonal water bodies**, besides the **Diphlu River** running through it.
- **Other National Parks in Assam are:**
 - **Manas National Park,**
 - **Dibru-Saikhowa National Park,**
 - **Nameri National Park,**
 - **Rajiv Gandhi Orang National Park.**
 - **Dehing Patkai National Park.**
 - **Raimona National Park.**

9.Ujjwala 2.0

Why in News

Recently, the Prime Minister launched the **second phase of Pradhan Mantri Ujjwala Yojana (PMUY) or Ujjwala 2.0 Scheme**.

- He mentioned plans to promote **“gobar dhan” – tapping cow dung for energy** on the occasion of **World Bio Fuel Day (10th August)**.
- Ujjwala is part of the ambitious agenda for behavioural change that **will help India transit to a \$5 trillion economy by 2024**.

Key Points

- **About:**

- **PMUY-I:**
 - Launched in May 2016 to provide LPG (liquefied petroleum gas) connections to poor households.
- **PMUY-II:**
 - It is aimed to **provide maximum benefit to the migrants** who live in other states and find it difficult to submit address proof.
 - Now they will only have to give “**Self Declaration**” to avail the benefit.
- **Objectives:**
 - Empowering women and protecting their health.
 - Reducing the number of deaths in India due to unclean cooking fuel.
 - Preventing young children from a significant number of acute respiratory illnesses caused due to indoor air pollution by burning fossil fuel.
- **Features:**
 - The scheme provides a **financial support of Rs 1600 for each LPG connection to the BPL households.**
 - Along with a deposit-free LPG connection, **Ujjwala 2.0** will provide the first refill and a hotplate free of cost to the beneficiaries.
- **Target:**
 - Under **Ujjwala 1.0**, the target was to provide LPG connections to 50 million women from the below poverty line (BPL) households, by March 2020. However, in August 2018, women **from seven other categories were brought under the purview of the scheme:**
 - **SC/ST**, those under the **Pradhan Mantri Awas Yojana (PMAY)**, beneficiaries of the **Antyoday Anna Yojana (AAY)**, **Forest Dwellers**, most backward classes, tea gardens and Islands.
 - Under **Ujjwala 2.0**, **an additional 10 million LPG connections** will be provided to the beneficiaries.
 - Government has also fixed a target of **providing piped gas to 21 lakh homes in 50 districts.**
- **Nodal Ministry:**
 - Ministry of Petroleum and Natural Gas (MoPNG).
- **Achievements:**
 - In the first phase of the PMUY, **8 crore poor families**, including from the Dalit and tribal communities, were given free cooking gas connections.
 - The **LPG infrastructure has expanded manifold** in the country. In the last six years, more than 11,000 new LPG distribution centres have opened across the country.
- **Challenges:**
 - **Low Consumption of Refills:**

- Encouraging the sustained usage of LPG remains a big challenge, and low consumption of refills hindered recovery of outstanding loans disbursed under the scheme.
- The annual average refill consumption on 31st December 2018 was only 3.21.
- **System Anomalies:**
 - There are deficiencies such as the issuance of connections to unintended beneficiaries, and problems with the software of the state-run oil marketing companies for identifying intended beneficiaries and inadequacies in the deduplication process.

Way Forward

- The scheme should be extended to poor households in urban and semi-urban slum areas.
- There is a need for achieving a higher LPG coverage of the population by providing connections to households that do not have LPG.
- Entering **Aadhaar** numbers of all adult family members of existing as well as new beneficiaries to make deduplication effective and appropriate measures in distributors' software to restrict issuance to ineligible beneficiaries.

10. Unpacking the resiliency of global trade

Context

Past experiences suggest there is hope for global trade recovery in the post-COVID-19 world.

Impact of pandemic on the global and Indian economy

- In the last year, the devastating impact of COVID-19 pandemic has **shrunk the world economy by 4.4%** and global trade by 5.3%.
- Job losses in the world have been estimated to be to the tune of 75 million.
- India's GDP contracted by 7.3% according to the National Statistical Office.
- About 10 million jobs were lost in India according to the Centre for Monitoring Indian Economy Pvt. Ltd.
- Around the world, countries have responded to pandemic-induced shortages with **protectionist reactions and nationalist aspirations**.
- Such a response has the potential to disrupt complex cross-border supply chains.

How economic shocks in the past laid foundation for institutional changes

- The Second World War was responsible for the creation of the **Bretton Woods Institutions** such as **World Bank and International Monetary Fund (IMF)** and **International Trade Organisation (ITO)** were created to help rebuild the shattered post-war economy.
- The General Agreement on Tariffs and Trade (GATT) was negotiated in 1947 as a means to reducing barriers to international trade.
- The oil shocks of the 1970s led to the establishment of the International Energy Agency (IEA) in 1974 and went on to create awareness on the need for **global energy security**.
- The financial crisis of 2008 led to the G20 Leaders Summit, an elevation from the G20 Finance Ministers forum in 1999.
- **Increase in global trade:** As a result of these developments global trade increased from a mere \$60.80 billion in 1950 to \$2,049 billion in 1980; \$6,452 billion in 2000; \$19,014 billion in 2019.

Changes in the global trade in post-Covid world

- **Financial buffers due to stimulus package:** Stimulus packages and forced savings in several countries in the last year have created **financial buffers**.
- **Resilient supply chain:** **Global supply chains are expected to be resilient** to help revive manufacturing with lower production costs, induce investments and promote technology transfers.
- **Anti-dumping measures at WTO:** In a post COVID-19 world, members of the World Trade Organization are expected to make rules to discipline errant nations that are known to dumping goods and erecting trade barriers through multilateral rules.
- **Deeper economic integration through trade arrangements:** Mutually beneficial trade arrangements that seek deeper economic integration will be entered into at the bilateral and regional levels.
- **Dominance of technology:** Countries that harness technology are expected to dominate international trade in future with a transformational impact on the global economy.
- Businesses will aim to harness data for innovation to remain ahead of the curve in a post-COVID-19 world.

Way forward for India

- The projections of the International Monetary Fund for India's economic growth ahead are positive and in line with the general trends world-wide.

- **Focus on value-added manufacturing:** Building an ecosystem that incentivises value-added manufacturing and technology-induced finished products should form a part of our long-term strategy.
- **Production Linked Incentive Scheme (PLI)** schemes, if carefully nurtured, could lead the industry on that path.
- **Support MSMEs:** Supporting MSMEs with cheaper input costs, including raw material and intermediate goods would help sustain them with job creation at the local level.
- Developing a synergistic relationship between the big industry and MSMEs is at the core of a successful Atmanirbhar Bharat.
- **Skill upgradation:** Skills upgradation to global standards should form a part of India's strategy in a post-COVID-19 world.

Conclusion

The patterns in the past leave much hope for optimism for global trade in the post-COVID-19 crisis in the collective belief that international trade is vital for development and prosperity.

11.National Mission on Edible Oil-Oil Palm

Why in News

Recently, the Prime Minister has announced a new national initiative on palm oil production to help increase farm incomes.

- The scheme, called National Edible Oil Mission-Oil Palm (NMEO-OP), **for self-reliance in edible oil** involves investment of over Rs. 11,000 crore (over a five year period).

Key Points

- **Aims:**
 - To **harness domestic edible oil prices** that are dictated by expensive palm oil imports.
 - To **raise the domestic production of palm oil** by three times to 11 lakh MT by 2025-26.
 - This will involve **raising the area under oil palm cultivation** to 10 lakh hectares by 2025-26 and 16.7 lakh hectares by 2029-30.
- **Features:**
 - The **special emphasis of the scheme will be in India's north-eastern states and the Andaman and Nicobar Islands** due to the conducive weather conditions in the regions.

- Under the scheme, **oil palm farmers will be provided financial assistance** and will get remuneration under a price and viability formula.
- **Significance of the Scheme:**
 - **Reduction in Import dependence:**
 - It is expected to incentivise production of palm oil to reduce dependence on imports and help farmers cash in on the huge market.
 - India is the **largest consumer of vegetable oil in the world**. Of this, palm oil imports are almost 55% of its total vegetable oil imports.
 - **Rise in Yields:**
 - India **produces less than half of the roughly 2.4 crore tonnes of edible oil that it consumes annually**. It imports the rest, buying palm oil from Indonesia and Malaysia, soyoil from Brazil and Argentina, and sunflower oil, mainly from Russia and Ukraine.
 - In India, **94.1% of its palm oil is used in food products**, especially for cooking purposes. This makes palm oil extremely **critical to India's edible oils economy**.

Palm Oil

- Palm oil is currently the **world's most consumed vegetable oil**.
- It is used extensively in the production of detergents, plastics, cosmetics, and biofuels.
- **Top consumers** of the commodity are India, China, and the **European Union (EU)**.

Edible Oil Economy

- There are **two major features**, which have significantly contributed to the development of this sector. One was the **setting up of the Technology Mission on Oilseeds in 1986** which was **converted into a National Mission on Oilseeds and Oil Palm (NMOOP) in 2014**.
 - Further it was **merged with NFSM (National Food Security Mission)**.
- This gave a thrust to Government's efforts for augmenting the production of oilseeds. This is evident by the very impressive **increase in the production of oilseeds from about 11.3 million tons in 1986-87 to 33.22 million tons in 2019-20**.
- The **other dominant feature** which has had significant impact on the present status of edible oilseeds/oil industry has been the **program of liberalization under which the Government's economic policy allows greater freedom to**

the open market and encourages healthy competition and self regulation rather than protection and control.

- The **Yellow Revolution** is one of the colour revolutions that was launched to increase the production of Edible oilseeds in the country to meet domestic demand.
- The government has also launched the **Kharif Strategy 2021 for oilseeds**.
 - It will bring an additional 6.37 lakh hectare area under oilseeds and is likely to produce 120.26 lakh quintals of oilseeds and edible oil amounting to 24.36 lakh quintals.
- **Oils Commonly Used in India:** Groundnut, mustard, rapeseed, sesame, safflower, linseed, niger seed, castor are the major traditionally cultivated oilseeds.
 - Soybean and sunflower have also assumed importance in recent years.
 - Coconut is most important amongst the plantation crops.

12. National Mission on Edible Oil-Oil Palm (NMEO-OP)

In news Indian Prime Minister recently announced National Mission on Edible Oil-Oil Palm (NMEO-OP) initiative on palm oil production to help increase farm incomes.

- Rs. 11,000 crores over five year period will be invested in the edible oil ecosystem through this mission

What are the key features of the Scheme?

- **Objective:** To ensure self-sufficiency in edible oil production.
- **Aim:** To reduce import dependence from 60% to 45% by 2024-25, by increasing domestic edible oil production from 10.5 million tonnes to 18 million tonnes which is a 70% growth target.
- Farmers will get all needed facilities, from quality seeds to technology.
- Along with promoting the cultivation of oil palm, this mission will also expand the cultivation of our other traditional oilseed crops.

What is the need for such schemes?

- India is the largest consumer of vegetable oil in the world.
- India's Palm oil imports are almost 60% of its total vegetable oil imports.
- Recently, India's dependence on expensive imports has driven retail oil prices to new highs.
- In India, 94.1% of its palm oil is used in food products, especially for cooking. Thus, palm oil is extremely important to India's edible oils economy.
 - The oil is used in food manufacturing, in beauty products, and as biofuel.

- Palm oil accounted for about 33% of global oils produced from oil crops in 2014.
- **Top consumers:** India, China, and the European Union (EU).

Do you know?

- The NMEO-OP's predecessor was the National Mission on Oil Seeds and Oil Palm.
- In May 2020, oilseed production had grown 35% from 27.5 million tonnes in 2014-15 to 37.3 million tonnes by 2020-21.

13. IPCC's Sixth Assessment Report, "Climate Change 2021: The Physical Science Basis"

The Intergovernmental Panel on Climate Change (IPCC)'s Sixth Assessment Report has been released.

- The Sixth Assessment Report **updates the scientific consensus on extreme weather, human attribution, the carbon budget**, feedback cycles, and charts the future state of the climate since the 5th Assessment Report of 2014.

Highlights of the report:

- The current global warming trends overall are likely to lead **an increase in annual mean precipitation over India**, with more **severe rains expected over southern India** in the coming decades.
- The planet was irrevocably headed towards **warming by 1.5° Celsius over pre-industrial times** in the next two decades.
- **Extremely deep emission cuts** need to be undertaken by all countries immediately to limit it to 1.5°C.
- Warming is already accelerating **sea level rise** and worsening extremes such as **heat waves, droughts, floods and storms**.
- **Tropical cyclones are getting stronger and wetter**, while Arctic Sea ice is dwindling in the summer and permafrost is thawing and all of these trends will get worse.
- Based on existing commitments by countries to curb their emission, the world is on track for global temperature warming by at least **2.7°C by 2100**, calling it 'Code red for humanity'.

Recommendations of the IPCC:

- The countries should strive to achieve **net zero emissions** – that is, no additional greenhouse gases were emitted – **by 2050**.

- In the most ambitious emissions pathway, the projection is that **globe would reach the 1.5°C in the 2030s**, overshoot to 1.6°C, with temperatures dropping back down to 1.4°C at the end of the century.

India's emission and its impacts:

- India has **not yet committed to a net zero timeline**.
- **India is currently the world's third largest greenhouse gas emitter**, but per capita emissions are much lower.
- The U.S. emitted nearly 9 times more greenhouse gases per capita than India in 2018.
- The report warns that with a 7,517 km coastline, India will face significant **threats from rising seas**.
- Across six Indian port cities – **Chennai, Kochi, Kolkata, Mumbai, Surat and Visakhapatnam** – 28.6 million people will be exposed to coastal flooding if sea levels rise 50cm.

The Assessment Reports of IPCC:

- The **five previous assessment reports that have come out since the IPCC was established in 1988**.
- These reports have formed the **basis of international climate change negotiations**, and the actions that governments across the world have been taking in the last three decades to restrict the rise of global temperatures.
- Their value has been **globally acknowledged**.
- The fourth assessment report of 2007 won the IPCC the **Nobel Peace Prize**.
- Each of these reports have built upon the previous ones with updated knowledge and understanding of the climate system.
- All of them, starting from the **first one in 1990**, have been categorical in stating that the rise in global surface temperatures since the 1950s was most likely caused by human activities.
- The reports have also presented **projections for temperature rise till 2100** under different scenarios and the kind of impacts that can be expected under each of these pathways.

Why IPCC reports matters?

- The IPCC assessment reports have been **extremely influential in directing the dialogue and action on climate change**.
- The **First Assessment Report led to the setting up of the UN Framework Convention on Climate Change**, the umbrella agreement under which international negotiations on climate change take place every year.

- The **Second Assessment Report** was the basis for the **1997 Kyoto Protocol** that ran till last year, and the **Fifth Assessment Report**, which came out in **2014**, guided the **Paris Agreement**.
- In the immediate future, the IPCC report could serve as the most important warning towards the rise in temperatures to unacceptable levels, and **propel the governments to take more urgent actions**.

14. A circular economy for plastic

Context

The India Plastics Pact, the first in Asia, will be launched in September at the CII Annual Sustainability Summit.

Issue of plastic waste

- A 2019 report by the **Center for International Environmental Law** suggests that by 2050, greenhouse gas emissions from plastic could reach over 56 gigatonnes, 10-13% of the remaining carbon budget.
- **Connection with livelihood:** Viewed from the angle of livelihoods, post-consumer segregation, collection and disposal of plastics make up about half of the **income of 1.5- 4 million waste-pickers in India**.
- For India, the solution must be **multi-pronged, systemic, and large scale**, to create a visible impact. The Plastics Pacts model offers such a solution.

About Plastics Pacts model

- **Business-led initiative:** The Plastics Pacts are business-led initiatives and transform the plastics packaging value chain for all formats and products.
- The Pacts bring together everyone from across the **plastics value chain** to implement practical solutions.
- Integral to the Pact's framework is the involvement of the informal waste sector crucial to **post-consumer segregation, collection and processing of plastic waste**.
- All Pacts unite behind four targets:
 - 1) To eliminate **unnecessary and problematic plastic packaging** through redesign and innovation.
 - 2) To ensure all plastic packaging is **reusable or recyclable**.
 - 3) To increase the reuse, collection, and recycling of plastic packaging.
 - 4) To **increase recycled content** in plastic packaging.
- It is active in a number of countries including the U.K., South Africa, and Australia.

- The first Plastics Pact was launched in the U.K. in 2018, by WRAP, a global NGO based in the U.K.
- It is now being brought to India by **CII and WWF India**.

Advantages

- **Economic advantage:** It can be expected to boost demand for recycled content, investments in recycling infrastructure, jobs in the waste sector, and beyond.
- **Support EPR framework:** The Pact will support the **Extended Producer Responsibility** framework of the government and improve solid waste management as envisioned in the **Swachh Bharat Abhiyan**.
- The India Plastics Pact focuses on **solutions and innovation**.
- **Plastic production and management development:** The Pact will encourage the development and maturing of the entire plastics production and management ecosystem.
- **Drive circulatory of plastic:** Apart from benefits to society and economy, delivering the targets will drive the circularity of plastics and help tackle pollution.

Conclusion

The India Plastics Pact will benefit society, the economy and the environment.

15. What is Absorption Spectroscopy?

Researchers from IIT Madras and IISER Kolkata have developed a method to detect minute quantities of chemicals in solution using Absorption Spectroscopy.

Absorption Spectroscopy

- Absorption spectroscopy is a tool to detect the presence of elements in a medium.
- Light is shone on the sample, and after it passes through the sample is examined using a spectroscope.
- Dark lines are seen in the observed spectrum of the light passed through the substance, which correspond to the wavelengths of light absorbed by the intervening substance and are characteristic of the elements present in it.
- In usual methods, about a cubic centimeter of the sample is needed to do this experiment.
- In the method developed here, minute amounts of dissolved substances can be detected easily.

- Usually in absorption spectroscopy, the principle used is that light because of its wavelike nature, shows diffraction patterns, that is, dark and light fringes, when it scatters off any object.

Studying small objects

- A related concept called the Abbe criterion sets a natural limit on the size of the object being studied.
- According to this criterion, the size of the observed object has to be at least of the order of the wavelength of the light being shone on it.
- If one wants to perform absorption spectroscopy using visible light, namely, blue, green and red, the wavelengths [of these colours] are about 400 nm, 500 nm and 600 nm, respectively.

What has Indian researchers achieved?

- In the method used by the researchers here, tiny, nano-sized particles that can absorb light being shone on them and re-emit red, blue and green light were employed.
- The particles emit electric fields that are analogous to how a tiny magnet would give off magnetic lines of force – this is called a dipole, and the particle is like a tiny mobile phone’s antenna.
- This dipole generates an electromagnetic field depending upon the quantum properties of the erbium dopants in the glass.
- The absorption leaves a gap in the reflected light, which is what is observed and used to analyse the nature of the absorbing material.

Applications of this technology

- There are many potential applications.
- Small molecules almost ten-millionth of an mm in diameter can be detected while these pass the emission region of the glass particle.
- The future is to use it to measure individual molecules, see absorption spectroscopy of a single DNA or protein molecule.

16. Revisit the idea of ‘aging out’ India’s coal plants

Context

As part of the Union Budget address for 2020-21, the Finance Minister, Nirmala Sitharaman, said that the shutting down of old coal power plants, which are major contributors to emissions, will aid the achievement of India’s Nationally Determined Contributions.

Advantages of shutting down old coal power plants

- The availability of under-utilised newer and presumably more efficient coal-based capacity means that shutting down older inefficient plants would **lead to improved efficiencies, reduced coal usage, and hence, cost savings.**
- It would be uneconomical for old plants to install **pollution control equipment** required to meet the emission standards announced by the Environment Ministry, and hence it would be better to retire them.

Why the decision needs finer scrutiny?

- **Some old plants are cost-effective:** There are also several old plants, which **generate at lower costs**, such as plants at Rihand, Singrauli, and Vidhyanchal (Madhya Pradesh).
- **Locational advantage:** This may be due to locational advantage rather than efficiency, as older plants are likely to be located closer to the coal source, reducing coal transport costs.
- **Not cost-effective:** Savings in generation cost from shutting down plants older than 25 years would be less than ₹5,000 crore annually, which is just 2% of the total power generation cost.
- **Not effective in reducing coal consumption:** Savings in coal consumption by replacing generation from plants older than 25 years with newer coal plants are also likely to be **only in the 1%-2% range.**
- **Economical even after installing pollution control equipments:** There are some old plants that may continue to be economically viable even if they install pollution control equipment as their **current fixed costs are very low.**

Important roles played by old thermal power plants

- **Significant part of power supply:** Plants older than 25 years make up around **20% of the total installed thermal capacity** in the country and play a significant role in the country's power supply.
- **Supporting renewable:** To support the growing intermittent renewable generation in the sector, there is an increasing need for capacity that can provide **flexibility, balancing, and ancillary services.**
- Old thermal capacity, **with lower fixed costs**, is a prime candidate to play this role until other technologies (such as storage) can replace them at scale.
- **Political economy risk:** There is also a political economy risk, as aggressive early retirement of coal-based capacity, without detailed analyses, could result in **real or perceived electricity shortage in some States**, leading to calls for investments in coal-based base-load capacity by State-owned entities.

Way forward

- **Nuanced analysis needed:** Instead of using the age as the only criteria a more disaggregated and nuanced analysis needs to be used.
- **Constraint related to renewable and increasing demand:** We also need to take into account aspects such as **intermittency of renewables**, growing demand, and need to meet emission norms, to make retirement-related decisions.

Conclusion

It may be prudent to let old capacity fade away in due course, while focusing on such detailed analysis and weeding out the needless capacity in the pipeline, to derive long-term economic and environmental benefits.

17. The sovereign right to tax is not absolute

Context:

- The recently introduced **Taxation Laws (Amendment) Bill** in the Lok Sabha aiming to nullify the provision for retrospective tax has brought to light the topic of bilateral investment treaties (BITs) and the sovereign right to tax.

Background:

- The retroactive tax amendment of 2012 resulted in Vodafone and Cairn Energy suing India before **Investor-State Dispute Settlement (ISDS) tribunals** of India-Netherlands and **India-UK. bilateral investment treaties (BITs)**.
 - Notably, India in its 2016 Model BIT carved out taxation measures completely from the scope of the investment treaty.
- Both the tribunals ruled against India's retroactive amendment of tax laws.

Details:

Sovereign right to tax:

- Several ISDS tribunals have held that the **tax policy of a country is a matter relating to the sovereign power of the state**, and thus the State has a sovereign right to enact the tax measures it deems appropriate at any particular time.

Limits on the right to tax:

- However, it should be noted that the state's sovereign **right to impose taxes are not absolute and there are limits to it.**
- Two provisions of relevance in this regard are **expropriation and the fair and equitable treatment provision.**
 - The tax should not be discriminatory or arbitrary and it should not be confiscatory.
 - Fair and equitable treatment envisions a certain degree of **legal certainty** in taxation measures. Also, any legal changes such as amending the tax laws should be done in a **reasonable and proportionate manner.**

Conclusion:

- The biggest takeaway from the Cairns and Vodafone fiasco is that India should exercise its right to regulate while being mindful of its international law obligations, acting in good faith and in a proportionate manner.
- India's **right to tax in the public interest should be balanced with the investor's interest of legal certainty.**

18. Monsoon blues

Context:

- The recent monsoons in Delhi have resulted in water logging in several parts of the city.
 - Despite many measures to address the age-old **problem of urban flooding in Delhi**, waterlogging during the rainy season continues to torment the city.

Core problems:

Problem with storm water network:

- At the centre of the urban flooding problem is the **state of both natural and engineered storm water drains.** Storm water drains are supposed to carry the runoff rainwater and empty it into a water body, which in Delhi is the river Yamuna.
 - Natural storm water drains are developed over the years as water naturally tries to find a way to flow and it depends on the terrain and slope of the land. **The natural storm water drains have been impacted by rapid urbanization in the region.** The **encroachment** on these natural storm water drains is also another major concern.
 - The **engineered storm water drains have been developed in silos** and the much-needed connectivity with larger drains has been missing.

- Apart from the problems with the storm water network leading to urban flooding, faulty sewage systems, rapid urbanisation, and climate change are intensifying Delhi's urban flooding problem.

Faulty sewage systems:

- The **lack of a separate sewage network, which is not connected to the storm water drain** is a major concern. Sewage flows into the storm water network at many points.
- The **waste and sewage reduce the water-carrying capacity of these storm water drains.**

Rapid urbanization:

- From being around 60 lakh, the population of the city has increased about four times in a short period of time.
- The **unregulated development of the city** has altered its natural drainage pattern.
- The **concretization** has greatly reduced the water absorption capacity and this adds to the volume and speed of run-off water.

Climate change:

- The rainfall has become erratic. Global warming has resulted in more intense spells of rainfall in a short duration.
 - There have been instances where a month's rainfall has been witnessed in a span of 3-4 hours in a day.

Administrative failure:

- The **lack of timely maintenance of drains and sewers** has contributed to the clogging of storm water drains. The fact that drains in the city are controlled by multiple agencies, makes the task of maintenance of drains and sewers more difficult.
- **The Drainage Master Plan**, commissioned almost nine years ago and largely seen as a solution, is yet to be implemented due to severe data irregularity.

19. South Asia's emerging digital transformation

Context

COVID-19 has forced South Asia to take a quantum leap in digitalisation, which will help shape its future prosperity.

Spike in digitisation due to Covid

- In India, COVID-19 accelerated the launch of the National Digital Health Mission, enhancing the accessibility and the efficiency of health-care services by creating a unique health ID for every citizen.
- Pandemic accelerated South Asia's **embrace of e-commerce**, boosted by digital payment systems.
- Bangladesh alone witnessed an increase of 70-80% in online sales in 2020, generating \$708.46 million in revenues.
- Even smaller nations such as Nepal recording almost an 11% increase in broadband Internet users.

The dangers of a digital divide

- A wide digital divide persists in access and affordability, between and within the countries of South Asia.
- Despite having the world's second-largest online market, 50% of India's population are without Internet with 59% for Bangladesh and 65% for Pakistan.
- This divide could permanently put children out of school, place girls at risk of early marriage, and push poor children into child labour costing economies billions of dollars in future earnings.
- Businesses too have paid a heavy price for the gap in digital solutions, whereby many South Asian firms failing to embrace e-commerce or other cloud-based technologies to survive the financial chaos of the novel coronavirus pandemic.

Asian digitalisation

- Digital transformation is a global imperative with the adoption of advanced technologies.
- At the forefront of Asian digitalisation are countries such as **Singapore, Japan, and South Korea** recognised as global technological hubs.
- The digital boom in the Association of Southeast Asian Nations (ASEAN) economies is pushing a **"common market" initiative**, fostering regional economic integration and enhancing global competitiveness.
- South Asia has also made significant strides in the adoption of digital technologies such as the Digital Bangladesh Vision 2021.

How digitalisation can help South Asia?

- The region still has a long way to go.

- **Jobs in e-commerce:** E-commerce could drive the post-pandemic growth in South Asia, providing new business opportunities and access to larger markets.
- In India, **e-commerce could create a million jobs** by 2030 and be worth \$200 billion by 2026.
- **Growth driven by Fintech:** Fintech could drive significant growth and reduce poverty by building financial inclusion.
- **Increase in productivity:** A timely, **inclusive, and sustainable digital transformation** can not only **bolster productivity** and growth but also serve as a panacea for some of the region's socio-economic divides.

Steps need to be taken

- To reap the dividends of digital transformation, South Asia needs to address legal, regulatory and policy gaps as well as boost digital skills.
- **Digital infrastructure:** A robust digital infrastructure is a sine qua non and there exists a huge financing gap.
- India alone needs an **annual investment of \$35 billion** to be in the top five global digital economy.
- **Private-public partnership:** Public-private partnership needs to be leveraged for the region's digital infrastructure financing.
- Regulatory roadblocks need to be addressed as e-commerce regulations are weak in South Asia.
- **Digital literacy:** There would be no digital revolution without universal digital literacy.
- Governments and businesses need to come together to revamp the education system to meet the demand for digital skills and online platforms.
- **Cybersecurity measures:** The crossflow of data and personal information calls for stringent cybersecurity measures as many have experienced painful lessons in data privacy during the pandemic.
- **Digital Single Market Proposal:** By addressing issues such as regulatory barriers on currency flows inhibiting online payment to transport-related constraints for cross-border e-commerce activities, South Asia can emulate the European Union's Digital Single Market Proposal.
- **Collaboration:** Concerted collaboration at all levels is needed to push South Asia out of stagnancy and towards a digital future of shared prosperity.
- **Partnership for digital revolution:** During the pandemic, South Asian nations joined hands to collectively battle the crises by contributing towards a **COVID-19 emergency fund, exchanging data and information on health surveillance, sharing research findings,** and developing an online learning platform for health workers.

- If the eight nations (Afghanistan, Bangladesh, Bhutan, India, Nepal, Maldives, Pakistan and Sri Lanka) can start walking the talk, partnership for a successful digital revolution is plausible.

Conclusion

A shared “digital vision” could place the region on the right track towards the Fourth Industrial Revolution.

20. Doing Away With Retrospective Taxation

Why in News

Recently, the Government of India has introduced **The Taxation Laws (Amendment) Bill, 2021** in the Lok Sabha.

- The bill seeks to withdraw tax demands made using a 2012 retrospective legislation to tax the indirect transfer of Indian assets.

Key Points

- **Background:**
 - The retrospective tax law was passed in 2012 following a Supreme Court verdict in favour of US-based Vodafone.
 - The Dutch arm of Vodafone Group bought a Cayman Islands-based company in 2007, which indirectly held a majority stake in Indian firm Hutchison Essar Ltd – later renamed Vodafone India – for \$11 billion.
 - It was introduced after an amendment to the Finance Act enabled the tax department to impose retrospective capital gains tax for deals – involving the transfer of shares in foreign entities located in India – after 1962.
 - While the amendment was aimed at penalising Vodafone, many other companies got caught in the crossfire and have created a host of problems for India over the years.
 - It remains one of the most contentious amendments to the income tax law.
 - Last year, India lost a case in international arbitral tribunal at The Hague against taxing Cairn Energy Plc and Cairn UK holdings Ltd on alleged capital gains the company made when in 2006 it reorganised its business in the country before listing the local unit.
- **Proposed Changes in Bill:**

- Amendments to the Income-tax Act and Finance Act, 2012 to effectively state that **no tax demand shall be raised for any indirect transfer of Indian assets if the transaction was undertaken before 28th May 2012.**
- **Tax raised** for the indirect transfer of Indian assets before May 2012 would be "**nullified on fulfillment of specified conditions**" such as the withdrawal of pending litigation and an undertaking that no damages claims would be filed.
- It also **proposes to refund the amount paid by companies facing trail** in these cases without interest thereon.
- **Significance of the Bill:**
 - The bill marks a step in the direction of addressing the long-pending demand of foreign investors seeking the removal of retrospective tax for the sake of **better tax clarity.**
 - This would help in establishing an **investment-friendly business environment**, which can increase economic activity and help raise more revenue over time for the government.
 - This could help restore India's reputation and **improve ease of doing business.**

Retrospective Taxation

- It allows a country to pass a rule on taxing certain products, items or services and deals and charge companies from a time behind the date on which the law is passed.
- Countries use this route to correct any anomalies in their taxation policies that have, in the past, allowed companies to take advantage of such loopholes.
- Retrospective Taxation hurts companies that had knowingly or unknowingly interpreted the tax rules differently.
- Apart from India, many countries including the USA, the UK, the Netherlands, Canada, Belgium, Australia and Italy have retrospectively taxed companies.

Capital Gain

- This gain or profit comes **under the category of 'income'**.
- Hence, the capital gain tax will be required to be paid for that amount in the year in which the transfer of the capital asset takes place. This is called the capital gains tax, which can be both short-term or long-term.
 - **Long-term Capital Gains Tax:** It is a levy on the profits from the sale of assets held for more than a year. The rates are 0%, 15%, or 20%, depending on the tax bracket.

- **Short-term Capital Gains Tax:** It applies to assets held for a year or less and is taxed as ordinary income.
- Capital gains can be reduced by deducting the capital losses that occur when a taxable asset is sold for less than the original purchase price. The total of capital gains minus any capital losses is known as the "net capital gains".
- **Capital assets** are significant pieces of property such as homes, cars, investment properties, stocks, bonds, and even collectibles or art.

Way Forward

- India needs to craft meaningful and clear dispute resolution mechanisms in cross-border transactions to prevent the disputes from going to international courts, and save the cost and time expenditure.
- Improving the **arbitration ecosystem** will have a positive impact on the ease of doing business.

21. Collaboration of India, Sri Lanka and Maldives on Security

Why in News

Recently in a **Deputy National Security Adviser-level meeting** hosted by Sri Lanka, India, Sri Lanka and the Maldives have agreed to work on “**four pillars**” of security cooperation.

- The four areas covers **marine security, human trafficking, counter-terrorism, and cyber security.**
- The **meeting** which was held **under the Colombo Security Conclave**, saw **Bangladesh, Seychelles and Mauritius** participating in the **role of observers.**

Key Points

- **Background:**
 - Soon after the NSA (National Security Adviser) Trilateral meeting on Maritime Security in November 2020 in Colombo, this **grouping was renamed as 'Colombo Security Conclave'**. A secretariat has also been established in the capital city of Sri Lanka (Colombo).
 - This **Trilateral framework was established back in 2011.**
 - The **aim of the establishment of the Conclave** was to forge closer cooperation on maritime and security matters among the three Indian Ocean countries.
 - The initiative, **grounded in military and security collaboration**, assumes significance in the region, in the wake of the current geostrategic dynamic that India shares with Sri Lanka and the Maldives.

- **Current Geostrategic Dynamic:**
 - **Sri Lanka:** Earlier this year, **India aired security concerns over China being awarded development projects** in an island off Sri Lanka's northern province, close to India's southern border.
 - The **Maldives's engagement** with members of the **India-United States-Japan-Australia grouping**, known as the '**Quad**', has been growing over the last year, especially in the area of defence cooperation.
- **Highlights of the Latest Meeting:**
 - The **aim** of the Meeting was **to establish a maritime security mechanism for Indian Ocean Region (IOR)** including the Bay of Bengal **amid China's growing presence in the area.**
 - With the six countries attending the meeting, the **focus areas were expanded** and **now it covers** weapons and human trafficking, countering terrorism and violent extremism, protection of maritime environment, capacity building, transnational crimes including narcotics, and Humanitarian Assistance and Disaster Relief (HADR), etc.
 - More cooperation through **joint exercises of the navies and coast guards** to further strengthen maritime safety and security in IOR.
 - As has been reported earlier, there have been **pollution accidents in the IOR.** MV Xpress Pearl, MT New Diamond and MV Wakashio had accidents in the region and this impacted the marine environment. The members discussed ways of combating the pollution in the waters.
 - Later this year, the **three observer countries** have been invited to be **full members at the next NSA level meeting.** This meeting will take place in Maldives.
- **Significance:**
 - The **widening of thematic areas** of cooperation and **expansion of membership** to Bangladesh, Mauritius and Seychelles **indicate growing convergence among the Indian Ocean Region countries** to work together in a common platform and to deepen the spheres of engagement under a regional framework.
 - The **coming together of the 6 Indian Ocean region countries** in India's immediate neighbourhood on a common maritime and security platform is significant in a wider global context as well.
 - It **highlights India's desire to play a leading security role in the neighbourhood.**
- **Concerns:**
 - The progress of the NSA-level trilateral meeting was affected when Delhi's ties with Male deteriorated under Maldivian President Abdulla Yameen.
 - **Subregional cooperation cannot be insulated from bilateral political relations** and, hence, maintaining good bilateral relations with

individual countries and responding to the growing aspirations of smaller neighbours would be crucial.

- **Most of the smaller neighbours** are more **comfortable cooperating in non-traditional security than entering into hard military cooperation** with India at the subregional level.

Way Forward

- A **subregional approach** to building security cooperation has been gaining salience in **India's neighbourhood policy** in recent years. The revival of the NSA-level trilateral India-Sri Lanka-Maldives dialogue on maritime security cooperation underscores this policy approach.
- **Drawing a clear boundary of the subregion** will continue to remain a challenge as cooperation will not always be driven by the proximity factor but also by the nature of the issue itself. Having said that, some clarity on the boundary issue may help in better framing the objectives of subregional security cooperation and avoid overlapping of membership or duplication of activities.

22. Centre moves to redact Retrospective Tax Law

The government took the first step towards doing away with the contentious retrospective tax law of 2012, which was used to raise large tax demands on foreign investors like Vodafone and Cairn Energy.

Retrospective Tax Law: A backgrounder

- The roots of this law date back to 2007, when Vodafone bought over a majority stake in the telecom operations of Hutch in India for \$11.1 billion.
- While the deal involved the changing of hands of Indian operations of Hutch, the companies party to it were registered outside India and all the paperwork and financial transactions, too, were done outside the country.
- But the Indian government ruled that Vodafone was liable to pay capital gains tax to it as the deal involved the transfer of assets located in India.
- Importantly, there was no rule in the Indian statutes then that allowed such taxation.
- Vodafone challenged this claim and the case went to Supreme Court, which ruled in 2012 that there was no tax liability on Vodafone's part to Indian authorities.

What was the law made then?

- In 2012, Parliament amended the Finance Act to enable the taxman to impose tax claims retrospectively for deals executed after 1962 which involved the transfer of shares in a foreign entity whose assets were located in India.
- The target, of course, was the Vodafone deal. Very soon, tax claims were also raised on Cairn Energy.

How did the Companies react?

- The changes to the Finance Act allowed India to reimpose its tax demand on Vodafone.
- Tax authorities had slapped a tax bill of Rs 7,990 crore on Vodafone, saying the company should have deducted the tax at source before making a payment to Hutchison.
- By 2016, reports say, the bill had risen to Rs 22,100 crore after adding interest and penalty.
- The demand on Cairn was for Rs 10,247 crore in back taxes over its move, beginning in 2006, to bring its Indian assets under a single holding company called Cairn India Ltd.
- A few years later, when Cairn India Ltd floated an IPO to divest about 30 per cent of its ownership of the company, mining conglomerate Vedanta picked up most of the shares.
- However, Cairn UK was not allowed to transfer its stakes as Indian officials held that the company had to first clear the tax liability.

A case in the Hague

- That prompted Cairn UK to move the Permanent Court of Arbitration to The Hague, Netherlands.
- It said that India had violated the terms of the India-UK Bilateral Investment Treaty by imposing a retrospective tax due on it.
- The treaty provides protection against arbitrary decisions by laying down that India would treat investment from the UK in a “fair and equitable” manner.
- Vodafone, too, had sought arbitration before the Permanent Court of Arbitration, citing the “fair and equitable” treatment clause in the India-Netherlands BIT.

India’s response

- In September last year, the Hague court ruled in favour of Vodafone, quashing India’s tax claim after holding that it violated the “equitable and fair treatment standard” under the bilateral investment treaty.

- India refused to pay the compensation, Cairn launched recovery proceedings across countries as part of which a French court ordered the freezing of some Indian assets in Paris.
- This move discourages foreign investors from coming to India and that the Centre should look to resolve the case at the earliest.
- The amendments now mooted are designed to do just that.

Taxation Laws (Amendment) Bill, 2021

- The Bill offers to drop tax claims against companies on deals before May 2012 that involve the indirect transfer of Indian assets would be “on fulfilment of specified conditions”.

Various conditions:

- The condition includes the withdrawal of pending litigation and the assurance that no claim for damages would be filed.
- As per the proposed changes, any tax demand made on transactions that took place before May 2012 shall be dropped, and any taxes already collected shall be repaid, albeit without interest.
- To be eligible, the concerned taxpayers would have to drop all pending cases against the government and promise not to make any demands for damages or costs.

Why is the amendment necessary?

- The retrospective taxation was termed “tax terrorism”.
- It is argued that such retrospective amendments militate against the principle of tax certainty and damage India’s reputation as an attractive destination.
- This could help restore India’s reputation as a fair and predictable regime apart from helping put an end to taxation.

23. Places in news: Agalega Island

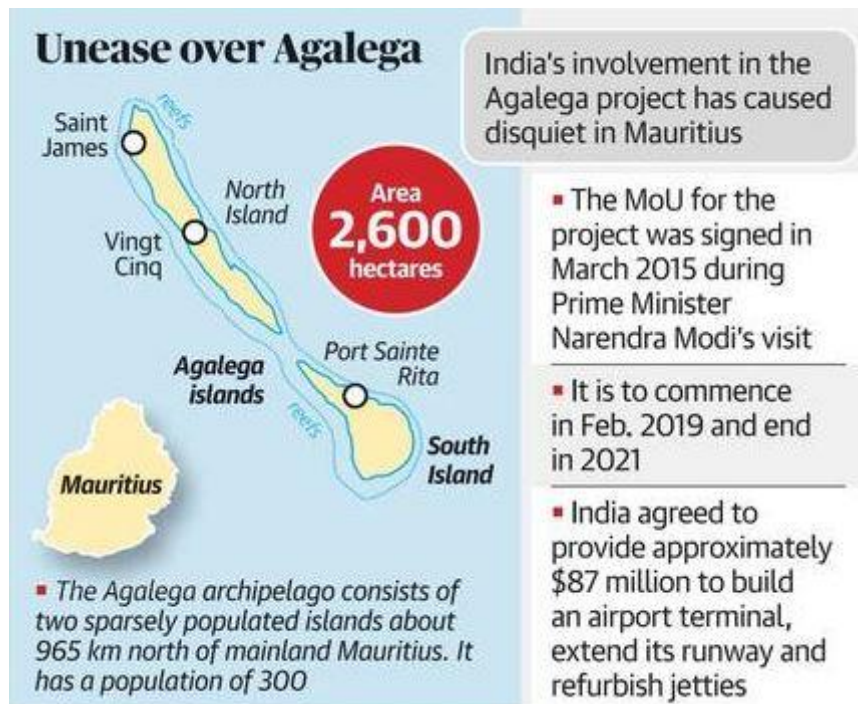
Mauritius has denied a report that it has allowed India to build a military base on the remote island of Agalega.

Agalega Island

- Agaléga are two outer islands of Mauritius located in the Indian Ocean, about 1,000 kilometers north of Mauritius island.
- The islands have a total area of 2,600 ha (6,400 acres).

- There is an MoU between the governments of Mauritius and India to develop the Agaléga islands and resolve infrastructural problems faced by Agaleans.

Why in news?



- India asserts that these new facilities are part of its Security and Growth for All in the Region (SAGAR) policy, which aims to increase maritime cooperation between countries in the region.
- Mauritius, for its part, has indicated that its coastguard personnel will use the new facilities.
- But it is clear that the Indian investment of \$250m in developing an airfield, port, and communications hub on this remote island is not aimed at helping Mauritius develop its capacity to police its territorial waters.

Significance of this area

- The Agalega area is currently a blind spot for the Indian Navy and by building a military facility in it, New Delhi hopes to expand its maritime domain awareness.
- In times of conflict, knowing the location of enemy ships and submarines, without being detected in the process, creates a significant advantage.
- China's naval forays into this region are the true motivator for its expanding naval presence.
- In peacetime, effective maritime domain awareness helps establish international partnerships with like-minded militaries and also acts as a deterrent to both state and non-state adversaries, by signaling reach.

Conclusion

- The Indian Ocean is now increasingly contested.
- Whether or not China is deterred by India's surveillance efforts, Agaléga is now a pawn in this new era of major power competition across the Indian Ocean and indeed the wider Indo-Pacific region.

24. LS clears Air Quality Commission Bill for NCR

Context:

Lok Sabha has cleared the **Commission for Air Quality Management in National Capital Region and Adjoining Areas Bill, 2021**.

Details:

- An Ordinance establishing a similar Commission was promulgated in October 2020.
- It lapsed in March 2021 and was repromulgated in April 2021.
- The Bill repeals the 2021 Ordinance.

Key Provisions of the bill:

- The Bill provides for the constitution of a Commission for better **coordination, research, identification, and resolution of problems related to air quality in the National Capital Region (NCR) and adjoining areas**.
 - Adjoining areas have been defined as areas in **Haryana, Punjab, Rajasthan, and Uttar Pradesh**, adjoining the National Capital Territory of Delhi and NCR.
- The Bill **dissolves the Environment Pollution Prevention and Control Authority** established in the NCR in 1998.
- Composition:
 - The Commission will consist of: (i) a Chairperson, (ii) an officer of the rank of a Joint Secretary as the member-secretary and Chief Coordinating Officer, (iii) a serving or former Joint Secretary from the central government, (iii) three independent technical members with expertise in air pollution, and (iv) three members from non-government organisations.
 - The Chairperson and members of the Commission will have a tenure of **three years or till the age of seventy years**, whichever is earlier.
 - The Commission will also include ex-officio members: (i) from the central government and concerned state governments, and (ii) technical members from CPCB, ISRO and NITI Aayog.
- Functions of the Commission:

- Coordinating actions by concerned state governments
- Planning and executing plans to prevent and control air pollution in NCR,
- Providing a framework for identifying air pollutants,
- Conducting research and development through networking with technical institutions,
- Training and creating a special workforce to deal with issues related to air pollution, and
- Preparing action plans such as increasing plantation and addressing stubble burning.
- Penalties:
 - Contravention of provisions of the Bill, or orders and directions of the Commission will be punishable with **imprisonment of up to five years, or fine of up to one crore rupees**, or both.
 - The Bill excludes farmers from the scope of these penalties. However, the Commission may collect an environmental compensation from farmers causing pollution by stubble burning. This compensation will be prescribed by the central government.

25. Indigenous Aircraft Carrier 1 (INS Vikrant)

The much-awaited sea trials of India's maiden indigenous aircraft carrier (IAC-1), built by the public sector Cochin Shipyard Ltd (CSL) have begun.

Indigenous Aircraft Carrier 1

- IAC is the first aircraft carrier designed and built in India.
- It has been designed by the Indian Navy's Directorate of Naval Design (DND), and is being built at Cochin Shipyard Limited (CSL), a public sector shipyard under the Ministry of Shipping.
- The IAC-1, the biggest warship made indigenously, has an overall length of 263 m and a breadth of 63 m.
- It is capable of carrying 30 assorted aircraft including combat jets and helicopters.
- Propelled by four gas turbines, it can attain a top speed of 30 knots (about 55 kmph).
- The vessel will have a complement of 1,500 personnel.

Significance of IAC 1

- An aircraft carrier is one of the most potent marine assets for a nation, which enhances a Navy's capability to travel far from its home shores to carry out air domination operations.

- Many experts consider having an aircraft carrier as essential to be considered a 'blue water' navy – one that has the capacity to project a nation's strength and power across the high seas.
- An aircraft carrier generally leads as the capital ship of a carrier strike/battle group.
- As the carrier is a valuable and sometimes vulnerable target, it is usually escorted in the group by destroyers, missile cruisers, frigates, submarines, and supply ships.

Why does it matter that this is a Made-in-India warship?

- Only five or six nations currently have the capability of manufacturing an aircraft carrier – India joins this elite club now.
- According to the Navy, over 76 per cent of the material and equipment on board IAC-1 is indigenous.
- India's earlier aircraft carriers were either built by the British or the Russians.
- The INS Vikramaditya, currently the Navy's only aircraft carrier that was commissioned in 2013, started out as the Soviet-Russian Admiral Gorshkov.
- The country's two earlier carriers, INS Vikrant and INS Viraat, were originally the British-built HMS Hercules and HMS Hermes before being commissioned into the Navy in 1961 and 1987 respectively.

Why will this warship be named INS Vikrant?

- INS Vikrant, a Majestic-class 19,500-tonne warship, was the name of India's much-loved first aircraft carrier, a source of immense national pride over several decades of service before it was decommissioned in 1997.
- India acquired the Vikrant from the United Kingdom in 1961, and the carrier played a stellar role in the 1971 war with Pakistan that led to the birth of Bangladesh.

Now that India has the capability, will it build more carriers?

- Since 2015, the Navy has been seeking approval to build a third aircraft carrier for the country, which, if approved, will become India's second Indigenous Aircraft Carrier (IAC-2).
- This proposed carrier, to be named INS Vishal, is intended to be a giant 65,000-tonne vessel, much bigger than IAC-1 and the INS Vikramaditya.
- The Navy has been trying to convince the government of the "operational necessity" of having a third carrier.

26. Need to deal with the flaws in the existing structure of GST

Context

After four years, the promise of the Goods and Services Tax (GST) remains substantially unrealised.

Why tax base of GST is not expanding

- The GST is strongly co-related to overall GDP.
- Revenue collection of the GST is dependent on the nominal growth rate of Gross Value Added (GVA) in the economy.
- Since inception, GVA per quarter has been between ₹40-lakh crore to ₹47-lakh crore and GST revenue has not been higher than ₹2.7-lakh crore to ₹3.1-lakh crore.
- The Tax to Gross value addition is only about 5% to 6.5% though GVA growth was much higher.
- **Issues:** A very large segment is covered by exemption, composition schemes, evasion and lower tax rate.

Five Issues with the GST structure

1) Dominance of the Centre

- The political architecture of GST is asymmetrically loaded in favour of the Centre.
- **No body to adjudicate:** There is no particular body is tasked to adjudicate if there is a dispute between States and between the Centre and the States.
- **Centre's domination:** In the voting, the central government has one-third vote and **States have two-thirds of total votes.**
- All states have equal voting rights regardless of size and stake.
- With the support of a dozen small States whose total GST collection is not more than 5% of the total central government can dominate the decision making process in GST Council.
- **Small states dictate the terms:** With equal value for each States' voting, larger and mid-sized States feel shortchanged.

2) Flaw in tax structure

- Nearly 45% to 50% of commodity value is **outside the purview of the GST**, such as petrol and petroleum products.
- **Certain states not getting revenue as origin state:** States which export or have inter-State transfers or mineral and fossil fuel extractions are not getting revenue as the origin States and need a compensation mechanism.

- The pre-existing threshold level of VAT has been tweaked too often which has led to an evaporation of tax base incentivising, enabling evasion and mis-reporting.
- Most trading and retail establishments, (however small) are **out of the fold of the GST**.
- At the retail level, irrespective of whether Input Tax Credit (ITC) is required or not, the burden can be passed off to the consumer.
- As a result, the **loss could be as high as one third**.

3) Exemptions

- **Exemptions from registration and taxation** of the GST have further eroded the GST tax base compared to the tax base of the pre-existing VAT.
- **Ground for evasion:** Exemptions are purely distortionary and also provide a good chance to remain under the radar, thereby directly increasing evasion or misclassification.
- Theoretically, exemptions at the final stages reduce tax realisation.
- **Multiple rates:** As **multiple rates** are charged at different stages, it goes against the lessons of GST history.
- This tax works well with a **single uniform tax rate for all commodities** and services at all stages, inputs and outputs alike.
- While most countries have a single rate, India stands out and is among the five countries to have four rates/slabs.

4) Exclusion

- **Against the interest of States:** Petroleum products remaining outside the purview of GST has helped the **Centre to increase cesses and decrease central excise**, in what would otherwise have been shareable with the States.
- Now, **States will be keen on including petrol and diesel under the GST** as their share of tax goes up in the process, even if there is a special rate fixed for it.
- Equity requires that petrol and diesel be brought under the GST.
- **Cascading of taxes:** Apart from the complexity it creates in record keeping and 'granting ITC', in the present form **it also leads to a cascading** which the GST avowedly tried to avoid.

5) Lack of compliance

- Compliance with GST return (GSTR-1) filing stipulation and the resultant tax information is not up to date.
- **Fraudulent claims of Input Tax Credit (ITC)** because of a lack of timely reconciliation are quite high though it has come down by two thirds.

- **Tax evasion**, estimated by a National Institute of Public Finance and Policy's paper, is at least 5% in minor States and plus 3% in the major States.

Conclusion

Policy gaps along with compliance gaps do need to be addressed. Without proper tax information, infrastructure and base, the States would go in for selective tax enforcement. In the long run, voluntary compliance will suffer and equity in taxation will be violated.

27. Poverty in India is on rise again

In the absence of Consumption Expenditure Survey (CES) data, the Periodic Labour Force Survey shows a rise in the absolute number of the poor in India.

About Consumption Expenditure Survey (CES)

- A CES is conducted by the National Sample Survey Office (NSO) every five years.
- But the CES of 2017-18 (already conducted a year late) was not made public by the Government of India.
- Now, we hear that a new CES is likely to be conducted in 2021-22, the data from which will probably not be available before end-2022.
- India has not released its CES data since 2011-12.

Key highlights

- Unemployment had reached a 45-year high in 2017-18, as revealed by NSO's Periodic Labour Force Survey (PLFS).
- While the PLFS's questions on consumption expenditure are not as detailed as those of the CES, they are sufficient for us to estimate changes in consumption on a consistent basis across time.
- It enables any careful researcher to estimate the incidence of poverty (i.e. the share in the total population of those below the poverty line), as well as the total number of persons below poverty.

There is unemployment induced poverty

- There is a clear trajectory of the incidence of poverty falling from 1973 to 2012.
- In fact, since India began collecting data on poverty, the incidence of poverty has always fallen, consistently.
- It was 54.9% in 1973-4; 44.5% in 1983-84; 36% in 1993-94 and 27.5% in 2004-05.

- This was in accordance with the Lakdawala poverty line (which was lower than the Tendulkar poverty line), named after a distinguished economist, then a member of the Planning Commission.

Methodology of Poverty Line

- In 2011, it was decided in the Planning Commission, that the national poverty line will be raised in accordance with the recommendations of an expert group chaired by the late Suresh Tendulkar.
- That is the poverty line we use in estimating poverty in the table.
- As it happens, this poverty line was comparable at the time to the international poverty line (estimated by the World Bank), of \$1.09 (now raised to \$1.90 to account for inflation) person per day.
- The PLFS also estimates the incidence of poverty. It also collects the household monthly per capita consumption expenditure data based on the Mixed Recall Period methodology.

Stunning rise in Poverty

- It is a stunning fact that for the first time in India's history of estimating poverty, there is a rise in the incidence of poverty since 2011-12.
- The important point is that this is consistent with the NSO's CES data for 2017-18 that was leaked data.
- The leaked data showed that rural consumption between 2012 and 2018 had fallen by 8%, while urban consumption had risen by barely 2%.
- Since the majority of India's population (certainly over 65%) is rural, poverty in India is also predominantly rural.
- Remarkably, by 2019-20, poverty had increased significantly in both the rural and urban areas, but much more so in rural areas (from 25% to 30%).

Why is it intriguing?

- It is important here to recall two facts: between 1973 and 1993, the absolute number of poor had remained constant (at about 320 million poor), despite a significant increase in India's total population.
- Between 1993 and 2004, the absolute number of poor fell by a marginal number (18 million) from 320 million to 302 million, during a period when the GDP growth rate had picked up after the economic reforms.
- It is for the first time in India's history since the CES began that we have seen an increase in the absolute numbers of the poor, between 2012-13 and 2019-20.

- The second fact is that for the first time ever, between 2004-05 and 2011-12, the number of the poor fell, and that too by a staggering 133 million, or by over 19 million per year.

Fuss over GDP growth

- This was accounted for by what has come to be called India's 'dream run' of growth: over 2004 and 2014, the GDP growth rate had averaged 8% per annum – a 10-year run that was not sustained thereafter.
- By contrast, not only has the incidence of poverty increased since then, but the absolute increase in poverty is totally unprecedented.

Reasons behind this Pauperization

The reasons for increased poverty since 2013 are not far to seek:

- **GST:** While the economy maintained some growth momentum till 2015, the monumental blunder of demonetization was followed by a poorly planned and hurriedly introduced GST.
- **Fall in investments:** None of the engines of growth was firing after that. Private investment fell from 31% inherited by the new government, to 28% of GDP by 2019-20.
- **Fall in exports:** Exports, which had never fallen in absolute dollar terms for a quarter-century since 1991, actually fell below the 2013-14 level (\$315 billion) for five years.
- **Unemployment:** Joblessness increased to a 45-year high by 2017-18 (by the usual status), and youth (15-29 years of age) saw unemployment triple from 6% to 18% between 2012 and 2018.
- **Fall in wages:** Real wages did not increase for casual or regular workers over the same period, hardly surprising when job seekers were increasing but jobs were not at anywhere close to that rate.
- **Pandemic:** Poverty is expected to rise further during the COVID-19 pandemic after the economy has contracted.

Hence, consumer expenditure fell, and poverty increased.

28. Demand for Import of Genetically Modified Soy Seeds

Why in News

The poultry industry is demanding a permit for the import of crushed genetically modified (GM) soy seeds for captive consumption of farmers from the Central government.

- **Non-fiscal and fiscal relief measures** which include the restructuring of term loans and additional working capital **has also been demanded** from the Centre and State governments.

Key Points

- **GM Crops:**
 - A **GM or transgenic crop** is a plant that has a novel combination of genetic material obtained through the use of modern biotechnology.
 - For example, a GM crop can contain a gene(s) that has been artificially inserted instead of the plant acquiring it through pollination.
 - **Conventional plant breeding** involves crossing of species of the same genus to provide the offspring with the desired traits of both parents.
 - Genus is a class of items such as a group of animals or plants with similar traits, qualities or features.
 - **Cross breeding** can take a long time to achieve desired results and frequently, characteristics of interest do not exist in any related species.
 - **Bt cotton** is the **only GM crop that is allowed in India**. It has alien genes from the soil bacterium *Bacillus thuringiensis* (Bt) that allows the crop to develop a protein toxic to the common pest **pink bollworm**.
 - **Herbicide Tolerant Bt (Ht Bt) cotton**, on the other hand is derived with the insertion of an additional gene, from another soil bacterium, which allows the plant to resist the common herbicide glyphosate.
 - In **Bt brinjal**, a gene allows the plant to resist attacks of fruit and shoot borers.
 - In **DMH-11 mustard**, genetic modification allows cross-pollination in a crop that self-pollinates in nature.
- **Status of GM Soyseeds in India:**
 - India allows the import of **GM soybean and canola oil**.
 - Import of **GM soya bean seeds** has not been approved in India.
 - The main fear is that import of GM soya bean will **affect the Indian soya bean industry by contaminating non-GM varieties**.
- **Reasons for the Demand:**
 - The outbreak of **Covid-19** has created a massive crisis which led to an **initial depletion of demand in chicken products** owing to false news about the linkage between the virus and poultry products.
 - This created an **unwarranted financial crisis** and led to the erosion of **working capital (used for day-to-day operations)**.
 - Since the last several months, high speculation activities in soya contracts on **National Commodity and Derivatives Exchange Limited (NCDEX)** has been disturbing the sector.

- The NCDEX is an online commodities exchange dealing primarily in agricultural commodities in India.
- The **rise in the soybean process** had led to the **skyrocketing of prices of eggs and chicken products** in the retail market.
 - The import for the particular time frame will stabilise the raw material market.
- **Approval Process for GM crops in India:**
 - In India, the **Genetic Engineering Appraisal Committee (GEAC)** is the apex body that **allows for commercial release of GM crops**.
 - Use of the unapproved GM variant can attract a **jail term of 5 years and fine of Rs. 1 lakh** under the **Environment Protection Act, 1986**.
 - **Food Safety and Standards Authority of India (FSSAI)** is the authorised body to **regulate the imported crops in India**.
- **Some Related Initiatives:**
 - **Poultry Venture Capital Fund (PVCF):**
 - The **Department of Animal Husbandry and Dairying** is implementing it under **“Entrepreneurship development and Employment generation” (EDEG)** of the **National Livestock Mission**.
 - It is a bankable programme and the Central Government is providing subsidy through **National Bank for Agricultural and Rural Development (NABARD)** for those beneficiaries taking loan for PVCF.
 - **National Livestock Mission:**
 - Different programmes under the **National Livestock Mission** under which financial assistance is provided to States/Union Territories for implementation of Rural Backyard Poultry Development (RBPD) and Innovative Poultry Productivity Project (IPPP).
 - **Assistance to States for Control of Animal Diseases (ASCAD) Scheme:**
 - ASCAD under **“Livestock Health and Disease Control” (LH&DC)** which covers the **vaccination of economically important poultry diseases** viz., Ranikhet Disease, Infectious Bursal Disease, Fowl Pox etc., including control and containment of emergent and exotic diseases like Avian Influenza.

29. Experts raise concerns over mandatory food fortification

In a pushback against the Centre's plan to mandatorily fortify rice and edible oils with vitamins and minerals, a group of scientists and activists have warned of the adverse impacts on health and livelihoods.

Food Fortification

- Food fortification is defined as the practice of adding vitamins and minerals to commonly consumed foods during processing to increase their nutritional value.
- It is a proven, safe and cost-effective strategy for improving diets and for the prevention and control of micronutrient deficiencies.

Types of food fortification

Food fortification can also be categorized according to the stage of addition:

1. **Commercial and industrial fortification** (wheat flour, cornmeal, cooking oils)
2. **Biofortification** (breeding crops to increase their nutritional value, which can include both conventional selective breeding, and genetic engineering)
3. **Home fortification** (example: vitamin D drops)

Advantages offered

- **Health:** Fortified staple foods will contain natural or near-natural levels of micro-nutrients, which may not necessarily be the case with supplements.
- **Taste:** It provides nutrition without any change in the characteristics of food or the course of our meals.
- **Nutrition:** If consumed on a regular and frequent basis, fortified foods will maintain body stores of nutrients more efficiently and more effectively than will intermittently supplement.
- **Economy:** The overall costs of fortification are extremely low; the price increase is approximately 1 to 2 percent of the total food value.
- **Society:** It upholds everyone's right to have access to safe and nutritious food, consistent with the right to adequate food and the fundamental right of everyone to be free from hunger

Issues with fortified food

- **Against nature:** Fortification and enrichment upset nature's packaging. Our body does not absorb individual nutrients added to processed foods as efficiently compared to nutrients naturally occurring.

- **Bioavailability:** Supplements added to foods are less bioavailable. Bioavailability refers to the proportion of a nutrient your body is able to absorb and use.
- **Immunity issues:** They lack immune-boosting substances.
- **Over-nutrition:** Fortified foods and supplements can pose specific risks for people who are taking prescription medications, including decreased absorption of other micro-nutrients, treatment failure, and increased mortality risk.

30. NASA-ISRO Synthetic Aperture Radar

The NASA-ISRO Synthetic Aperture Radar satellite, aimed at making global measurement of land surface changes using advanced radar imaging, is proposed to be launched in early 2023, informed Earth Sciences Minister.

NASA-ISRO SAR

- NISAR is a joint collaboration for a dual-frequency L and S-band SAR for earth observation.
- NASA and Bengaluru-headquartered ISRO signed a partnership on September 30, 2014, to collaborate on and launch NISAR.
- The mission is targeted to launch in early 2022 from ISRO's Sriharikota spaceport in Andhra Pradesh's Nellore district, about 100km north of Chennai.
- It is capable of producing extremely high-resolution images for a joint earth observation satellite mission with NASA.
- It will be the first satellite mission to use two different radar frequencies (L-band and S-band) to measure changes in our planet's surface less than a centimeter across.

Objectives of the NISAR

- NISAR will observe Earth's land and ice-covered surfaces globally with 12-day regularity on ascending and descending passes, sampling Earth on average every six days for a baseline three-year mission.
- It will measure Earth's changing ecosystems, dynamic surfaces, and ice masses, providing information about biomass, natural hazards, sea-level rise, and groundwater, and will support a host of other applications.
- It would also provide data on natural hazards including earthquakes, tsunamis, volcanoes, and landslides.

What are L and S Bands?

- L band waves are used for GPS units because they are able to penetrate clouds, fog, rain, storms, and vegetation.
- The S-band is used by airport surveillance radar for air traffic control, weather radar, surface ship radar, and some communications satellites, especially those used by NASA to communicate with the Space Shuttle and the International Space Station.
- NISAR uses a sophisticated information-processing technique known as SAR to produce extremely high-resolution images.
- Radar penetrates clouds and darkness, enabling NISAR to collect data day and night in any weather.

What is collaboration?

- NASA is providing the mission's L-band SAR, a high-rate communication subsystem for science data, GPS receivers, a solid-state recorder, and payload data subsystem.
- ISRO is providing the spacecraft bus, the S-band radar, the launch vehicle, and associated launch services for the mission, whose goal is to make global measurements of the causes and consequences of land surface changes using advanced radar imaging.

31. A cycle of low growth, higher inflation

Context

In recent times, several economists have been arguing that the Government does not need to do anything with the economy. They argue that like after the Great Depression, the economy rebounded worldwide, and so will it with us. The argument is fallacious on four accounts:

Four factors that make recovery different from the recovery after the Great Depression

1) Demand destruction

- In the case of the Great Depression, demand was created by the Second World War effort, especially in the United States.
- **Demand destruction:** In the current scenario, the COVID-19 pandemic has resulted in demand destruction.
- This is because many jobs have been lost, and even where jobs were retained, there have been pay cuts.

- Both of these trends were confirmed in the Centre for Monitoring Indian Economy and other surveys.

Bright spot on export front

- The only bright spot in this dismal scenario is that the western world has spent a lot of money **stimulating the economy**.
- However, the Indian exporter face the challenge of rising freight costs and structural issues such as **a strong rupee** relative to major competitors.
- Only the Indian **IT sector is placed well** to capitalise on rising demand in the world markets.

2) Inflation and factors driving it

- India is suffering from stagnant growth to low growth in the last two quarters.
- As in the **low initial base** set by last year, almost any growth this year is seen as a significant growth percentage.
- **Commodity prices and monetary policy:** Inflation in India is being imported through a combination of **high commodity prices** and high asset price inflation caused by **ultra-loose monetary policy** followed across the globe.
- **Liquidity infusion:** RBI is infusing massive liquidity into the system by following an expansionary monetary policy through the **G-SAP, or Government Securities Acquisition Programme**.
- Foreign portfolio investors have directed a portion of the liquidity towards our markets.
- India has a relatively low market capitalisation, therefore, India cannot absorb the enormous capital inflow without **asset prices inflating**.
- **Supply chain issues:** Additionally, supply chain bottlenecks have contributed to the inflation we see in India today.
- **Rising fuel prices:** India's usurious taxation policy on fuel has made things worse.
- Rising fuel prices percolate into the economy by increasing costs for transport.

Impact of inflation

- The middle and lower-middle-class get destitute due to regressive indirect taxes and high inflation, with **their wealth eroding due to said inflation**.
- Especially in the case of the lower middle class, inflation is lethal as they do not have access to any hard assets, including the most fundamental hard asset, gold.

- The increase in fuel prices will also lead to a rise in wages demanded as the monthly expense of the general public increases.
- This leads to the dangerous cycle of **inflation and depleting growth**.

3) Interest Rate

- The only solution for any central banker once he realises that inflation is entrenched is tightening liquidity and further pushing the cost of money.
- If this does not dampen inflation, repo rates will need to go up later this year or early next year.
- **Tightening the money supply** is a painful act that will threaten to decimate what is left of our economy.
- Rising interest rates lead to a **decrease in aggregate demand** in a country, which affects the GDP.
- There is less spending by consumers and investments by corporates.

4) Rising NPA and its impact on credit growth

- Rising interest rates, lack of liquidity, and offering credit to leveraged companies instead of direct subsidies to support small and medium-sized enterprises (SMEs) and micro, small and medium enterprises (MSMEs) to counter the COVID-19 pandemic and its effects will result in NPAs of public sector banks climbing faster.
- Our small and medium scale sector is facing a **Minsky moment**.
- The Minsky moment marks the decline of asset prices, causing mass panic and the inability of debtors to pay their interest and principal.
- India has reached its Minsky moment.
- This means that the public sector unit and several other banks will need capital in copious amounts to make up for bad debt.
- The Union government's Budget is in no position to infuse large amounts of capital.
- As a result of the above causes, **credit growth is at a multi-year low of 5.6%**.

Way forward

- Indian economy is in a vicious cycle of low growth and higher inflation unless **policy action** ensures higher demand and growth.

Conclusion

In the absence of policy interventions, India will continue on the path of a K-shaped recovery where large corporates with low debt will prosper at the cost of small and medium sectors. This means lower employment as most of the jobs are created by the latter.

32. Stellar Mid-life Crisis: What ails the middle-aged Sun?

Stars like our Sun can go through a mid-life crisis, according to new research carried out by scientists from IISER Kolkata.

Stellar Middle Age

- At about 4.6 billion years of age, the sun is middle-aged, that is, it will continue to live for roughly the same period.
- There are accurate methods for estimating the age of the Sun, such as by using radioactive dating of very old meteorites that have fallen on the Earth.
- However, for more distant stars which are similar in mass and age to the Sun, such methods are not possible.
- One of the methods used is called gyrochronology.
- There is a relationship between rotation rate and age, that is the rotation rate of a star slows down with age.

How does it occur?

- When the stellar wind escapes from the star, it carries away with it a part of the angular momentum of the star, which results in its slowing down.
- The stellar wind has two drivers: one is the high temperature of the outer atmosphere of stars – the corona – which results in an outward expansion and hence plasma winds that emanate out.
- The other is the magnetic field.
- The magnetic field actually heats the corona and so when magnetic activity is strong the winds are strong and since wind carries away the internal (rotational) angular momentum of the star, it slows down its rotation.
- This is called magnetic braking.
- As the star ages, due to this mechanism, its rotation slows down and this relationship is used in gyrochronology to estimate the age of the star.

Impact

- This can lead to dramatic changes in their activity and rotation rates.
- The study also provides an explanation for the breakdown of the long-established relation between rotation rate and age in middle-aged sunlike stars.
- However, there is a breakdown of the gyrochronology relationship, because, after midlife, a star's rate of spin does not slow down with age as fast as it was slowing down earlier.
- Another intriguing fact is that the Sun's activity level has been observed to be much lower than other stars of similar age.

33. Ozone levels exceeding permitted levels: study

Context:

- A Centre for Science and Environment **study on ozone levels in Delhi-NCR.**

Ozone:

- While stratospheric ozone protects living things from ultraviolet radiation from the sun, **ground-level ozone is considered a pollutant** given the adverse health problems it gives rise to.

Ozone formation:

- Ozone is a **secondary pollutant**. Tropospheric, or ground-level ozone, is not emitted directly into the air, but is created by **chemical reactions between oxides of nitrogen (NO_x) and volatile organic compounds (VOC) in the presence of sunlight (photochemical reaction)**.
 - Emissions from cars, power plants, refineries, chemical plants, and other sources are the major sources of NO_x and VOC.
- Ozone is most **likely to reach unhealthy levels on hot sunny days** in urban environments.

Harmful effects:

- Ozone is a **highly reactive gas** and when inhaled it **can damage the lungs**. Relatively low amounts of ozone can cause chest pain, coughing, shortness of breath and, throat irritation. It may also **worsen chronic respiratory diseases** such as asthma as well as compromise the ability of the body to fight respiratory infections.
- Elevated exposure to ozone can **affect sensitive vegetation and ecosystems**. In particular, ozone can harm sensitive vegetation during the growing season.

Details:

- Contrary to the notion that ozone is predominantly a summer phenomenon, **the study found ozone levels exceeding the permitted levels even during winter** in Delhi-NCR.
- The study notes that despite the lockdown, more days and locations witnessed a higher and longer duration of ozone spells.

Concerns:

- Ozone is becoming more widespread in Delhi and NCR across all seasons.
- The presence of Ozone in large quantities in the winter season is all the more concerning because it makes the **smog in winter seasons more toxic**.

Recommendations:

- There needs to be a refinement of clean air action plan to **add strategies for ozone mitigation**, with strong action on vehicles, industry and waste burning which constitute the major sources of NO_x and VOC.
- Some of the strategies could involve the following:
 - Vapour recovery nozzles at the petrol pumps to reduce refuelling emissions
 - Cleaner burning fuels reformulated to reduce VOC, NO_x and other pollutants
 - Strict NO_x emission limits for power plants and industrial combustion sources
 - Enhanced vehicle inspection programs and
 - Strict limitations on solvent usage in factories.

34. Govt. introduces Bill on insurance firms

Context:

- The Union government has introduced the **General Insurance Business (Nationalisation) Amendment Bill** in the Lok Sabha.

Background:

- The Finance Minister in the **Budget 2021-22** had announced a big-ticket privatisation agenda, including **privatisation of two public sector banks and one general insurance company**.
- The minister had stated that this move would require legislative amendments.

Details:

- As per the statement of objectives and reasons of the General Insurance Business (Nationalisation) Amendment Bill, 2021, it seeks to **remove the requirement that the central government holds not less than 51 per cent of the equity capital in a specified insurer**.
- Thus the amendment will **allow the government to reduce its stake in state-owned insurers**.

Significance:

- The bill will **allow the general insurance companies to raise money from the retail participants**. This will help provide a **bigger financial resources base** for the public sector general insurance companies. This will allow them to offer better premium and innovative packages for the public and enable the infusion of technology in their functioning.
- The amendment will provide for greater private participation in the public sector insurance companies and will **help enhance insurance penetration and social protection** and better secure the interests of policyholders and contribute to faster growth of the economy.

Concerns:

- Several opposition members had opposed the introduction of the bill, saying it will bring in foreign investors and **entail total privatisation of PSU general insurance companies and the critical insurance sector**.
- Notably, the finance minister has clarified that though the aim is disinvestment it won't lead to privatisation of the general insurance sector.

35. New technique to study ultrasmall particles in cells

Context:

- Researchers from IIT Madras and IISER Kolkata have developed a new method to detect minute quantities of chemicals in solution.

Background:

Absorption spectroscopy:

- Absorption spectroscopy refers to spectroscopic techniques that measure the absorption of radiation due to its interaction with a sample.
 - The sample absorbs energy, i.e., photons, from the radiating field.
- The intensity of the absorption varies as a function of frequency and also the absorbing medium.
- Dark lines are seen in the observed absorption spectrum of the light passed through the substance, which corresponds to the wavelengths of light absorbed by the intervening substance and are characteristic of the elements present in it.
- Hence, **Absorption spectroscopy is employed as an analytical tool** to determine the presence of a particular substance in a sample and also to quantify the amount of the substance present.
- Absorption spectroscopy is performed across the electromagnetic spectrum. Infrared and ultraviolet-visible spectroscopy are particularly common in analytical applications.

Details:

- The new method uses a variation of absorption spectroscopy.
- The technique exploits the **quantum emission properties of erbium-doped sodium yttrium fluoride nanoparticles**.
 - These tiny, nano-sized particles can absorb the light being shone on them and re-emit red, blue and green light.
- The emission from these nano particles would be absorbed by substances in the sample. An analysis of the absorption spectrum would reveal the nature of the absorbing material.

Significance of the new methodology:

Surpasses the limits of conventional absorption spectroscopy:

- The new method surpasses the systemic limits imposed by conventional absorption spectroscopy based on the Abbe criterion.
 - The **Abbe criterion** sets a natural limit on the size of the object being studied using absorption spectroscopy. According to this criterion, the size of the observed object has to be at least of the order of the wavelength of the light being shone on it.
- Unlike the conventional absorption spectroscopy technique which requires a minimum of about a cubic centimetre of the sample for the analysis, **the new method developed can help detect even minute amounts of dissolved substances**. Very small molecules almost ten-millionth of a mm in diameter can also be detected using this methodology.

Potential applications:

- There are many potential applications.
 - This technique can be used to study the insides of cells and **detect even minuscule quantities of substances** present there.
 - It can also be used to **measure individual molecules**, see absorption spectroscopy of a **single DNA or protein molecule**.

36. Why is retrospective tax being scrapped?

Context:

- Finance Minister has introduced the **Taxation Laws (Amendment) Bill in the Lok Sabha** to nullify the provision for retrospective tax.

Background:

- The **Retrospective tax clause introduced in 2012** has been criticized as being **against the principle of tax certainty and damaging to India's image as a possible foreign investment destination.**
- The affected companies like Vodafone and Cairn Energy have filed and won international arbitration rulings that held the **Indian government in breach of bilateral investment protection agreements** over the imposition of retrospective taxes.

Details:

- The Bill proposes to **do away with retrospective taxation on the sale of assets in India by foreign entities** executed before May 2012.

Reasons for the proposed amendment:

Avoid legal sanctions:

- The government has been fighting legal cases against Vodafone and Cairn Energy on this aspect.
 - Vodafone got a favourable ruling in September 2020 at the Permanent Court of Arbitration at The Hague. Also an Arbitral Tribunal ruled in favour of Cairn, awarding it a compensation.
 - Cairn has even applied in courts in the U.S., Canada, Singapore, Mauritius and the Netherlands for seizure of Indian assets.
- The **loss of the arbitration cases and Cairn's pursuit of India's assets abroad** may have forced the government to propose the amendments.

Need for economic recovery:

- **Quick recovery of the economy after the COVID-19 pandemic** is the need of the hour and foreign investment has an important role to play in this regard.
- The proposed change will go a long way in undoing the damage done by the retrospective tax clause on India's image as a foreign investment destination and **help attract higher inward investments.**

37. Sunderbans is now drowning in plastic

Context:

- **Plastic pollution in the sunderbans**

Background:

- Sunderbans has been battered by many cyclones over the years, with Cyclone Yaas (May 2021) being the latest.
- To support the affected people, **packaged relief material** has been flowing into the Sunderbans.

Details:

- The unregulated inflow of relief materials has resulted in **accumulation of plastic waste in the Sunderbans**.
- Large amounts of plastic waste has been observed in the remote areas of the Sundarbans, like Gosaba, Mousuni, Bali, Patharpratima and Kultali.
- Several NGOs, experts, and even officials of the District Police and the Forest Department have pointed out that the **plastic accumulating on the isolated islands of the fragile ecosystem** are cause for great concern.

Concerns:

- Plastics in the sunderbans would have both short term as well as long term ecological impact on the Sundarbans ecosystem.
 - The presence of plastic in saline water increases the **toxicity of water**.
 - It could also contribute to the **eutrophication** of water.
 - The **ingestion of plastics by the local fauna** will adversely impact their health.
 - The breakdown of plastics in the water will lead to an increase in **microplastics**, which would subsequently enter the food system.
 - Given that Sunderbans is connected to the sea, the increase of plastic in the region could lead to **plastic waste entering the ocean**.

Recommendations:

- The local administration along with the support of local NGOs and locals should organise **cleanliness drives** to remove plastic from the Sunderbans.
- There should be **regulation of plastic usage in the region** and there should be clearly laid out guidelines to control the flow of plastic into the region. Any such plastic inflow should be properly disposed of with responsibility for the collection and disposal placed on appropriate authorities or the NGOs which are involved in relief material distribution.
- Proper measures need to be taken to **reduce single-use plastic usage in the region**.
- **More eco-friendly alternatives for plastic packaging** should be prioritized.

38. Centre to boost oil palm farming

Context:

- Approval of the **National Mission on Edible Oils - Oil Palm (NMEO-OP)** by the Cabinet.

Details:

- In a bid to reduce India's dependence on imports of edible oils, the new mission will strive to **ensure self-sufficiency in edible oil production**.
 - Under the NMEO-OP mission, the aim is to **reduce import dependence from 60% to 45% by 2024-25, by increasing domestic edible oil production** from 10.5 million tonnes to 18 million tonnes, a 70% growth target.
- As part of the palm oil-related targets, the Mission hopes to **increase oil palm acreage by an additional 6.5 lakh hectares by 2025-26** and grow production of crude palm oil to 11.2 lakh tonnes by 2025-26 and up to 28 lakh tonnes by 2029-30.
 - Currently, less than four lakh hectares are planted with oil palm in India.
- The Centre will **offer price assurances, viability gap funding and planting material assistance to oil palm farmers** to boost domestic production.
 - The provision of price assurance will reduce the risk for farmers facing price fluctuation due to volatility in the international market. The government will fix a viable palm oil price and in case of high volatility, the government will pay the difference in price to the farmers through direct benefit transfer. This assurance will inculcate confidence in the Indian oil palm farmers to go for the increased area and thereby more production of palm oil. The assurance to the farmers will be in the form of the viability gap funding and the industry will be mandated to pay 14.3% of the crude palm oil prices.
 - The Mission will also more than double the support provided for the cost of planting materials. A substantial increase has been made for planting material for oil palm and this has increased from Rs 12,000 per ha to Rs.29,000 per ha. Further, a substantial increase has been made for maintenance and inter-cropping interventions as well.
- In a bid to encourage oil palm cultivation in northeastern India and in the Andaman and Nicobar Islands, the Centre will bear an additional cost of 2% of the crude palm oil prices in these States.
- Over a five-year period, the financial outlay for the National Mission on Edible Oils - Oil Palm (NMEO-OP) will amount to Rs. 11,040 crore.

Significance:

- The scheme will immensely benefit the oil palm farmers, increase capital investment, create employment generation, **shall reduce the import**

dependence and consequently save foreign exchange and also increase the income of the farmers.

Challenges:

- There are some **biodiversity concerns involved with palm oil monoculture plantations** as observed in countries like Indonesia and Malaysia.

39. More feed, better productivity through a Sub-Mission on Fodder and Feed

Context

The government recently announced a Sub-Mission on Fodder and Feed.

Why availability of good and affordable quality feed and fodder matters

- A study by the **Indian Grassland and Fodder Research Institute** has observed that for every 100 kg of feed required, India is short of 23.4 kg of dry fodder, 11.24 kg of green fodder, and 28.9 kg of concentrate feed.
- **Low milk productivity:** The lack of good quality feed and fodder impacts the productivity levels of cattle.
- This is one of the chief reasons why Indian livestock's **milk productivity is 20%-60% lower than the global average.**
- **High input cost:** If we break down the input costs, we find that feed constitutes 60%-70% of milk production costs.
- When the **National Livestock Mission** was launched in 2014, it focused on supporting farmers in producing fodder from non-forest wasteland/grassland, and cultivation of coarse grains.
- However, this model could not sustain fodder availability **due to lack of backward and forward linkages** in the value chain.

Why Sub-Mission on Fodder and Feed is significant

- As about 200 million Indians are involved in dairy and livestock farming, the scheme is important from the **perspective of poverty alleviation.**
- The Sub-Mission on Fodder and Feed intends to create a **network of entrepreneurs** who will make silage (the hub) and sell them directly to the farmers (the spoke).
- **Bringing down the input cost:** The large-scale production of silage will bring down the input cost for farmers since **silage is much cheaper than concentrate feed.**
- **Objective:** The revised scheme has been designed with the objectives of increasing productivity, reducing input costs, and doing away with middlemen (who usually take a huge cut).

- Since India has a **livestock population of 535.78 million**, an effective implementation of this scheme will play a major role in **increasing the return on investment for our farmers**.

About the Sub-Mission on Fodder and Feed

- The scheme will provide **50% capital subsidy up to ₹50 lakh towards project cost to the beneficiary for infrastructure development** and for procuring machinery for value addition in feed such as hay/silage/total mixed ration.
- Private entrepreneurs, self-help groups, farmer producer organisations, dairy cooperative societies, and Section 8 companies (NGOs) can avail themselves of the benefits under this scheme.
- The scheme can be used for covering the cost of infrastructure/machinery such as baling units, harvester, chaff cutter, sheds, etc.

Challenges and solution

- **Seasonal availability:** A major challenge in the feed sector emanates from the fact that good quality green fodder is **only available for about three months during the year**.
- Fermenting green fodder: Ideal solution would be to **ferment green fodder** and convert it into silage.
- Hence, under the **fodder entrepreneurship programme**, farmers will receive subsidies and incentives to create a consistent supply chain of feed throughout the year.

Conclusion

The mission will help marginal farmers reduce their input cost and help them in increasing the return on capital employed.

40. What is RoDTEP Scheme?

The Centre has notified the rates and norms for the Remission of Duties and Taxes on Exported Products (RoDTEP) scheme asserting that it would put 'direct cash in the pockets of exporters' soon.

RoDTEP Scheme

- RoDTEP is a scheme for Exporters to make Indian products cost-competitive and create a level playing field for them in the Global Market.

- It has been kicked in from January 2021, replacing the earlier Merchandise and Services Export Incentive Schemes (MEIS and SEIS) that were in violation of WTO norms.
- The new RoDTEP Scheme is a fully WTO compliant scheme.
- It will reimburse all the taxes/duties/levies being charged at the Central/State/Local level which are not currently refunded under any of the existing schemes but are incurred at the manufacturing and distribution process.

Why need such a scheme?

- The scheme was announced last year as a replacement for the Merchandise Export from India Scheme (MEIS), which was not found not to be compliant with the rules of the World Trade Organisation.
- Following a complaint by the US, a dispute settlement panel had ruled against India's use of MEIS as it had found the duty credit scrips awarded under the scheme to be inconsistent with WTO norms.

Coverage of the scheme

- It covers about 75% of traded items and 65% of India's exports.
- To enable zero-rating of exports by ensuring domestic taxes are not exported, all taxes, including those levied by States and even Gram Panchayats, will be refunded under the scheme.
- Steel, pharma and chemicals have not been included under the scheme because their exports have done well without incentives.