



CURRENT AFFAIRS MAGAZINE

JUNE 2022

- Banning single use plastic
- Why India must engage taliban
- What does FPI exit means
- The role of caste in economic transformation



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Educrat IAS Mains DNA from The Hindu & The Indian Express

1. What are eVTOL Aircrafts?

(GS II: Sci & Tech)

- eVTOL aircraft is one that uses electric power to hover, take off, and land vertically.
- Most eVTOLs also use what is called as distributed electric propulsion technology which means integrating a complex propulsion system with the airframe.
- It works on electric propulsion based on progress in motor, battery, fuel cell and electronic controller technologies.

SIGNIFICANCE	CHALLENGES
It opens up new possibilities which aircraft with engines cannot carry out in areas such as maneuverability, efficiency and even from the environmental point of view.	As the technology so far is a mix of unpiloted and piloted aircraft, the areas in focus include “crash prevention systems”.
These use cameras, radar, GPS (global positioning system) and infrared scanners which makes it multi-tasking and efficient.	There are also issues such as ensuring safety in case of power plant or rotor failure.
It is pitched as a cost-comparable replacement for short-range urban transportation based on a fan-run tilt-wing design. Prototypes made test flights.	Aircraft protection from cyberattacks is another area of focus.
Although these advanced eVTOL vehicles under development still need access to fuel (hybrid) and/or electric charging capability, they can take off and land from almost anywhere.	A third area is in navigation and flight safety and the use of technology when operating in difficult terrain, unsafe operating environments, and also bad weather.
E-VTOLs are noise free, have a zero carbon footprint and are more affordable.	There are psychological barriers that need to be overcome when it comes to flying in a fully autonomous aircraft.

WAY FORWARD:

- E-VTOLs have been likened to a third wave in an aerial revolution. The first being the advent of commercial flying, and the second, the age of helicopters.
- Although these advanced eVTOL vehicles under development still need access to fuel (hybrid) and/or electric charging capability, they can take off and land from almost anywhere. Therefore, such vehicles, both manned and unmanned can be successfully integrated for the critical missions of the Public Services with extra deployment flexibilities.

2. Surrogacy Law faces challenge in Court.

(GS IV: Ethics & Human Interference ; GS II: Health)

Recently, the debate arose around The Surrogacy (Regulation) Act. This Act was passed in parliament in 2021.

DISTINCT FEATURES OF THE SURROGACY (REGULATION) ACT, 2021:

- **Definition:** It defines surrogacy as a practice where a woman gives birth to a child for an intending couple with the intention to hand over the child after the birth to the intending couple.
- **Regulation:** The Centre and State governments are expected to constitute a **National Surrogacy Board (NSB) and State Surrogacy Boards (SSB)** respectively.
 - This body is tasked with enforcing standards for surrogacy clinics, investigating breaches and recommending modifications.
 - Further, surrogacy clinics need to apply for registration within 60 days of the appointment of the appropriate authority.

- The Act allows ‘**altruistic surrogacy**’ — wherein only the medical expenses and insurance coverage is provided by the couple to the surrogate mother during pregnancy. **No other monetary consideration will be permitted.**
- **Purposes for which surrogacy is permitted:** Surrogacy is permitted when it is: (i) for intending couples who suffer from proven infertility; (ii) altruistic; (iii) not for commercial purposes; (iv) not for producing children for sale, prostitution or other forms of exploitation; and (v) for any condition or disease specified through regulations.
- **Eligibility criteria:** An eligibility certificate mandates that the couple fulfil the following conditions:
 - They should be Indian citizens who have **been married for at least five years;**
 - The **female** must be between **23 to 50 years** and the **male, 26 to 55 years;**
 - They cannot have any surviving children (biological, adopted or surrogate);
 - However, this would not include a ‘child who is mentally or physically challenged or
 - suffers from life threatening disorder or fatal illness.’

ISSUES RAISED:

- **Restrictive:** the laws do not allow single men to have child through surrogacy.
- **Vague age criteria:** Married women can only avail surrogacy services if they are unable to produce a child due to medical conditions. Otherwise, for women to avail of surrogacy services, they must be aged between 35 and 45 and widowed or divorced.
- The laws also require a surrogate to be genetically related to the couple who intend to have a child through this method.
- **Doesn't define “close relatives”** as it is hard to regulate commercial surrogacy in this context.
- **Reproductive rights:** Reproductive Rights of women are restricted as State deciding mode of Parenthood. It Restricts basic human right (of Having a Child) and article 14 because of the discriminatory approach on the basis of nationality, marital status and sexual orientation.
- The Act **doesn't address** issues like **Postpartum problems.**

WAY FORWARD:

- Surrogacy comes under the reproductive choices of women and it is included as a fundamental right under the purview of Article 21 of the Indian Constitution.
- If a critical mass builds up, amendments might have to be resorted to in order to resolve the grievances and ensure access for all categories of parents.
- Rather than penalizing surrogacy, the person providing a womb for surrogacy must be secured with a contract, ensuring proper, insurance and medical checks.

3. India-Gulf Relations

(GS II: Bilateral relations)

Recently, three countries in the Gulf region had summoned the Indian ambassadors to their nations to register their protest, and demanded a public apology from India.

GULF COUNTRIES AND INDIA

- India has enjoyed centuries of good relations with countries like Iran, while smaller gas-rich nation Qatar is one of India's closest allies in the region.
- India shares good relations with most of the countries in the Gulf.
- The two most important reasons for the relationship are oil and gas, and trade.
- Two additional reasons are the huge number of Indians who work in the Gulf countries, and the remittance they send back home.



IMPORTANCE OF GULF FOR INDIA:

- **Crude Oil and Petroleum Import:** The share of Persian Gulf countries in India's crude imports has remained at around 60% over the last 15 years. In 2021-2022, the largest exporter of oil to India was Iraq.

- **Indians Diaspora:** Counting only the 13.4 million non-resident Indians (NRIs), the Gulf has the largest numbers. The UAE (3.42 million), Saudi Arabia (2.6 million) and Kuwait (1.03 million) together account for over half of all NRIs.
- **Remittances:** In terms of remittances from abroad, India was the largest recipient in 2020 at \$83.15 billion, according to World Bank data. The largest contributor is the huge Indian diaspora in the Gulf.

The UAE was **India's third largest trading partner** in 2021-2022, and second largest for both exports (\$28 billion) and imports (\$45 billion) when these are counted individually. In terms of total trade volume, the UAE (\$72.9 billion) was behind the United States (\$1.19 trillion) and China (\$1.15 trillion). The UAE accounted for 6.6% of India's total exports and 7.3% of imports in the last financial year.

Saudi Arabia : At a total volume of \$42.9 billion in 2021-22, Saudi Arabia was India's fourth largest trading partner. While exports were low at \$8.76 billion (2.07% of India's total exports), imports from Saudi Arabia were the fourth largest at \$34.1 billion (7%), up 50% from the previous year. Most of it was crude oil.

Qatar : The total trade was \$15 billion, accounting for just 1.4% of India's total trade, but the country is India's most important supplier of natural gas. Qatar accounts for 41% of India's total natural gas imports. The UAE accounts for another 11%.

Iraq: It was India's fifth largest trading partner in 2021-22 at \$34.3 billion.

WAY AHEAD:

- Avoiding any such conflicts, there must be a clear synergy in India and the GCC countries consolidating their traditional areas of cooperation — energy, trade and investment.
- They need to adopt an integrated and cohesive approach to develop ties in diverse areas - renewables, water conservation, food security, digital technology and skills development.

4. Why India must engage Taliban

(GS II: Bilateral relations)

India has extended humanitarian assistance to Afghanistan at this time through international agencies and not let its unhappiness with the Taliban's policies come in the way.

WHY ENGAGE WITH TALIBAN

- Afghanistan impacts **India's security**. It has, in the past, provided space to Al-Qaeda with which the Taliban had a special relationship. Afghanistan has an ISIS presence too, though the Taliban is at odds with it.
- Of special concern to India are the Taliban's ties with the Lashkar-e-Taiba and Jaish-e- Mohammed. A recent United Nations report has emphasized that the Taliban's connections with these groups have not been severed. Indeed, it is unlikely that the Taliban would entirely turn its back on them.
- An engagement with the Taliban would at least give an opportunity to convey Indian concerns directly and encourage those elements within the group who wish to open up its diplomatic choices.
- India should not leave the Afghan arena entirely to Pakistan and China because of
- the social manifestation of Taliban theology on the Afghan people.

INDIA'S APPROACH:

- It is argued that both "**principle and pragmatism**" demand that India should not do business with the Taliban.
- The Taliban is here to stay and for India, there is no alternative but to deal with it even while repeating, if it wishes, the mantra of inclusive government.
- India should also maintain contacts with the leaders of the ousted Republic, especially as the Taliban itself wants them to return to the country.

5. A case for community-oriented health services.

(GS II: Health)

India's one million **Accredited Social Health Activists (ASHA) volunteers** have received **World Health Organization's Global Health Leaders Awards 2022**. The ASHA programme was well thought through and deliberated with public health specialists and community-based organisations from the beginning.

KEY VILLAGE STAKEHOLDERS SELECTED:

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

CONTRIBUTION OF ASHA

- It is important to note that even before the COVID-19 pandemic, ASHAs have made extraordinary contributions towards enabling increased access to primary health-care services; i.e. maternal and child health including immunization and treatment for hypertension etc.
- Over the years, ASHAs have played an outstanding role in making India polio free, increasing routine immunization coverage; reducing maternal mortality; improving new-born survival and in greater access to treatment for common illnesses.
- This resulted in an all-women partnership, or A-A-A: ASHA, AWW and ANM, of three frontline functionaries at the village level, that worked together to facilitate health and nutrition service delivery to the community.

CHALLENGES

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

WAY FORWARD:

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

6. India-Qatar Business Forum

(GS II: Bilateral relations)

- It was jointly organised by FICCI, CII and ASSOCHAM, along with Qatar Chamber of Commerce and Industry.
- Leading businessmen from both India and Qatar participated in the Business Forum.
- The Forum will result in new networking opportunities for trade and investment between both sides.

INDIA-QATAR BILATERAL RELATIONS:

- The large, diverse, accomplished and highly regarded Indian community is making an important contribution to Qatar's progress and in nurturing the bonds of deep-rooted friendship and multi-faceted cooperation between the two countries
- Commercial & Investment Relations
 - India-Qatar has touched a new milestone of US\$ 15 billion in 2021-22 and there has been a steady increase in the number of registered Indian businesses in Qatar which has crossed 15,000.
 - Qatar's key exports to India include LNG, LPG, chemicals and petrochemicals, plastics, and aluminium articles.
 - India's key exports to Qatar include cereals, copper articles, iron and steel articles, vegetables, fruits, spices, and processed food products, electrical and other machinery, plastic products, construction material, textiles & garments, chemicals, precious stones and rubber.
- Qatar Fund for Development (QFFD) sent Covid medical relief material to India for combating the second wave of Covid-19 by a special Amiri Air force plane.
- Qatar Airways transported medical aid from across the globe to India, free of charge
- Defence: India regularly participates in the biennial Doha International Maritime Defence Exhibition and Conference (DIMDEX) in Qatar.
 - Indian Naval and Coast Guard ships regularly visit Qatar as part of our bilateral cooperation and interaction.
- Cultural ties between India and Qatar are deep-rooted and actively nurtured by both sides. There are regular cultural exchanges between the two sides, under the provisions of the Agreement on Cultural Cooperation signed between the two sides in 2012
- Indian Community: There are over 700,000 Indian nationals residing in Qatar.
 - They comprise the largest expatriate community in Qatar and are engaged in a wide spectrum of professions including medicine; engineering; education, finance; banking; business; and media apart from a large number of blue-collared workers.

7. Bad Bank

(GS III: Indian Economy)

Recently, the Finance Ministry said that **the National Asset Reconstruction Company Ltd. (NARCL)**, set up to take over large bad loans of more than 500 crore from banks, will pick up the first set of such non-performing assets (NPAs) in July.

NARCL:

- It is a special purpose asset reconstruction company for taking over the large value NPA accounts (above 500 crore) from banks.
- Its formation was announced in the Union Budget for 2021-22, is intended to resolve stressed loans amounting to about 2 lakh crore, of which fully provisioned assets of about 90,000 crore are expected to be transferred to it from lenders in the first phase.

NEED FOR A BAD BANK:

- A bad bank can take over the bad loans of the bank, thereby freeing up the bank from the provisioning requirements. This means since the banks are not required to provision for the bad loans, the same money can be utilized for lending purposes.

- A bad bank would be specialized in maximizing the recovery out of a bad loan, as this would be its primary task. In contrast, banks are not in the business of recovery; therefore, their capability to resolve the loans is minimal.
- Reports have pointed to a potential increase in stressed assets due to economic slowdown in India. Combined with the COVID-induced lockdown, this may create a situation in which the NPAs might increase to an unsustainable limit.
- Industry needs to come out of the crisis it is facing if India is serious about its stated goal of a \$5 trillion economy. This requires a bullish sentiment in the economy. A bad bank can provide such an impetus to the industry by freeing up the books of banks.
- With the formation of a bad bank, it is expected that this amount can be utilised elsewhere, including towards public welfare and infrastructure creation.
- It can help consolidate all bad loans of banks under a single exclusive entity. The idea of a bad bank has been tried out in countries such as the U.S., Germany, Japan and others in the past.

ISSUES:

- Shifting the problem: A bad bank is expected to take over the debts of commercial banks under it. However, to what extent it will be successful in resolving the NPA crisis is not clear.
- Since there would be pressure on the bad bank to perform, it is possible that the employees might turn towards unethical practices to boost recovery out of a bad loan. This has been a continuing problem earlier as there have been reports of harassment of the banks' clients, who were unable to pay their dues.
- Without governance reforms, the Public sector banks (accounted for 86% of the total NPAs) may go on doing business the way they have been doing in the past and may end up piling-up of bad debts again.
- The price at which bad assets are transferred from commercial banks to the bad bank will not be market-determined and price discovery will not happen.

WAY FORWARD

- So long as Public Sector Banks' managements remain beholden to politicians and bureaucrats, their deficit in professionalism will remain and subsequently, prudential norms in lending will continue to suffer.
- Therefore, a bad bank is a good idea, but the main challenge lies with tackling the underlying structural problems in the banking system and announcing reforms accordingly.

8. India and Vietnam Sign Mutual Logistics Agreement.

(GS II: Bilateral relations)

India and Vietnam signed a Joint Vision Statement on "India-Vietnam Defence Partnership towards 2030"

- Logistics agreements are administrative arrangements facilitating access to military facilities for exchange of fuel.
- It provides for logistical support and increasing operational turnaround of the military when operating away from India.
- The MoU is the first such major agreement which Vietnam has signed with any country.

IMPORTANCE:

- The implementation of the projects shall add substantially to Vietnam's Defence capabilities.
- It will also push the Indian government's vision of "make in India, make for the world".
- It will significantly enhance the scope and scale of existing defence cooperation, at a time when China is flexing its muscles in the strategic Indo-Pacific region.
- Vietnam is an important partner in India's Act East policy and the Indo-Pacific vision

BILATERAL RELATIONS:

- **Historical roots:**

- India and Vietnam, with historical roots in the common struggle against colonial rule and the national struggle for independence, share traditionally close and cordial bilateral relations.
- **Mahatma Gandhi** and **Ho Chi Minh**, regarded as the Father of Nation in India and Vietnam respectively, led people in their heroic struggle against colonialism in the two countries.
- **Economic ties:** In FY 2020-21, for India, Vietnam was the 15th largest trading partner globally and the 4th largest within ASEAN, following Singapore, Indonesia and Malaysia.
 - For Vietnam, on the other hand, India was the 10th largest trading partner globally.
- **Strategic:**
 - The year 2022 also marks fifty years of diplomatic relations between the two countries.
 - India has also been providing assistance to Vietnam within the ASEAN framework.
- **China Factor:**
 - China aggressively continues to encroach in the territories of the two countries.
 - Hence, it is natural for both the countries to come closer with a view to restrain China from its aggressive actions.
- **Defence:**
 - Bilateral military cooperation includes sale of military equipment, sharing of intelligence, joint naval exercises and training in counterinsurgency and jungle warfare.
 - India also regularly deploys its warships for goodwill visits to Vietnamese seas.
- **Cultural:**
 - India is a favored spiritual destination for many Vietnamese because it is home to many famous Buddhist temples, including the Mahabodhi Temple in Bodh Gaya where the Buddha is said to have attained enlightenment.
 - Both countries also have a regular exchange of youth delegations.

India can develop robust ties with states on China's periphery such as Vietnam without giving China a veto on such relationships.

- Over the past few years, China is expanding its footprint in the Indian Ocean through its '**Debt Trap Diplomacy**' and '**String of Pearls Strategy**'.
- India is now pursuing the '**Necklace of Diamonds Strategy**': This strategy aims at garlanding China or in simple words, the counter encirclement strategy.
- India is expanding its naval bases and is also improving relations with strategically placed countries to counter China's strategies.

9. Indian Patent Regime vs. US norms

(GS III: IPR)

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

INDIAN PATENT REGIME:

- Indian patents are governed by the **Indian Patent Act of 1970**.
- India became a party to the **Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement** following its membership to the World Trade Organisation on January 1, 1995.
- An interesting point is that the original Indian Patents Act did not grant patent protection to pharmaceutical products to ensure that medicines were available at a low price.
- Patent protection of pharmaceuticals were re-introduced after the 2005 amendment to comply with TRIPS.

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

ISSUES RAISED:

- India’s inconsistencies regarding patent protection
- Concerns about what can be patented
- Waiting time for obtaining patents
- Burdensome reporting requirements and
- Doubts about data safety
- Trademark counterfeiting and secrets

MAJOR ISSUE:

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

TRIPS AND THE DOHA DECLARATION

- The **Doha Declaration on the TRIPS Agreement and Public Health** was adopted on November 14, 2001, by the WTO member states.
- This declaration recognises the gravity of public health problems affecting developing and least developed nations.
- **Compulsory licences** can be invoked by a state in public interest, allowing companies apart from the patent owner to produce a patented product without consent.
- It indicated that India should resolve its differences with the US regarding the disqualification of incremental inventions through bilateral dialogue.

10. Thailand becomes first Asian country to legalize Marijuana

(GS IV: Ethics & Human Interference ; GS II: Health)

Thailand has officially legalized the growing and consumption of marijuana in food and drinks, becoming the first Asian country to do so.

Cannabis, also known as marijuana among other names, is a psychoactive drug from the Cannabis plant used primarily for medical or recreational purposes.

The main psychoactive component of cannabis is **tetrahydrocannabinol (THC)**, which is one of the 483 known compounds in the plant, including at least 65 other cannabinoids, including cannabidiol (CBD). It is used by smoking, vaporizing, within the food, or as an extract.

FOR	AGAINST
The cannabinoids found in Cannabis can be used to treat a number of medical conditions like multiple sclerosis, arthritis, epilepsy, insomnia, HIV/AIDS treatment, cancer.	Its immediate effects include impairments in memory and in mental processes, including ones that are critical for driving.

Each part of the plant can be used for some industry. Hemp currently is also being used to make bio-fuel, bio-plastics and even construction material in certain countries. The cosmetic industry has also embraced Hemp seeds.

Addiction free: An epidemiological study showed that only 9% of those who use marijuana end up being clinically dependent on it.

By legalizing and taxing marijuana, the government will stand to earn huge amounts of revenue that will otherwise go to the Italian and Israeli drug cartels.

The cannabis plant is something natural to India, especially the northern hilly regions. It has the potential of becoming a cash crop for poor marginal farmers.

In India, the consumption of synthetic drugs like cocaine has increased since marijuana was banned, while it has decreased in the US since it was legalized in certain states.

Long-term use of cannabis may lead to the development of addiction of the substance, persistent cognitive deficits, and of mental health problems like schizophrenia, depression and anxiety.

With legalization comes commercialization. Cannabis is often incorrectly advertised as being “natural” and “healthier than alcohol and tobacco”.

Tobacco, too, was initially touted as a natural and harmless plant that had been “safely” used in religious ceremonies for centuries.

Too much trivialization of Cannabis use could lead to its mass cultivation and a silent economy wreaking havoc through a new culture of substance abuse in India.

WAY FORWARD

- For Cannabis/ Marijuana, it's important to make a distinction between legalization, decriminalization and commercialization.
- We must ensure that there are enough protections for children, the young, and those with severe mental illnesses, who are most vulnerable to its effects.

11. The IPEF holds promise but there are perils too

(GS II: Global Grouping)

Recently, the US President Joe Biden has established the **Indo-Pacific Economic Framework for Prosperity (IPEF)** which is said to be a new version of a “pivot to Asia”.

IPEF:

- Touted as a substantial step by the U.S. as part of its decade-old “pivot to Asia”, the framework is a declaration of a collective desire to make the Indo-Pacific region an engine of global economic growth.
- The IPEF was joined by India, Japan and Australia, and going beyond the Quad, also by 10 ASEAN countries, South Korea and New Zealand.

THE IPEF FRAMEWORK HAS FOUR PILLARS :

supply-chain
resilience

Clean energy,
decarbonisation
& infrastructure

Fair & resilient
trade

Taxation & anti-
corruption

SIGNIFICANCE:

- Countering China: China not being a member gives the group a distinct geopolitical flavour since all its members share worries about China's muscular nationalism and expansionist ambitions.

- Economic Cooperation & Integration: It will produce many immediate benefits on the economic front in terms of cooperation in investment and technology development for clean energy.
- Opportunity for India: India's joining of IPEF is a strong statement of commitment to Indo-Pacific goals, and to broadening regional economic cooperation, particularly after it walked out of the 15-nation RCEP.

CHALLENGES:

- Enforcement of labour rights have often been rejected by the World Trade Organization (WTO) members in the trade deals on several occasions. They argue that "internationally recognized core labour standards" of the International Labour Organization (ILO) should be used to deal with issues pertaining to labour rights.
- The environment and climate change have been duly included in the list of the IPEF. In this connection, the United Nations Framework Convention on Climate Change (UNFCCC) has cautioned that measures taken by the countries to combat climate change should not be used to discriminate or cause disguised restriction on international trade"
- U.S. officials have made it clear that IPEF is not a Free Trade Agreement; nor will it discuss tariff reductions or increasing market access, raising questions about its utility.
- Tax provisions are another element of the IPEF that could pose problems. There is a tendency to take taxation as a sovereign function and therefore not subject it to negotiation.
- On this issue of data localisation, based on the inputs from the Draft National E-Commerce Policy, the Government of India aspires for restrictions on cross-border data flows. This goes against "high-standard rules on cross-border data flows and data localization".
- The standards on cross-border data flows, data localisations and data portability has been included. This can have ramifications on the future of the digital economy because there are contrasting views on the control over data, which is the driver of the digital economy.

WAY FORWARD:

- Considering the complex trade negotiation process, there is a need for an empowered trade negotiator to consult with concerned ministries and report to the Prime Minister and key ministers with an assessment of pros and cons.
- The NITI Aayog should be mobilised to conduct broad consultations and elicit the opinions of stakeholders, including state governments.

12. Environmental Performance Index (EPI) 2022

(GS III: Environmental Pollution & degradation)

The Government of India (GoI) has questioned the parameters of the recently released **Environmental Performance Index (EPI) 2022**.

KEY FINDINGS:

- EPI 2022 uses 40 performance indicators across 11 issue categories to assess and rank 180 countries
- India has fallen from rank 168 and a score of 27.6 in 2020.

ISSUES RAISED BY INDIA:

- Some of these indicators used for assessing performance are extrapolated and based on surmises and unscientific methods.
- Baseline data does not seem to have been used.
- Also, there has been no explanation for the weightages assigned to certain indicators.
- The shifting of weightage on many indicators has resulted in India's low ranking. For example, for black carbon growth, India's score actually improved from 32 in 2020 to 100 (the top score) in 2022, but the weightage of this indicator has been reduced to 0.0038 in 2022 from 0.018 in 2020.
- Crucial carbon sinks that mitigate GHG, such as forests and wetlands, have not been taken into account.
- Objection to the low weightage given to per-capita GHG emissions (2.6%). India's low emissions trajectory, unlike high historical trajectories of developed countries, has been ignored.
- No indicator talks about renewable energy, energy efficiency and process optimization.
- The index emphasizes the extent of protected areas rather than the quality of protection that they afford; the computation of biodiversity indices does not factor in management effectiveness evaluation of protected areas the index computes the extent of ecosystems but not their condition or productivity

IMPLICATIONS OF EPI APPROACH:

- This approach is guaranteed to make richer countries look good, because they have accumulated emissions in the past, but these have started declining in the last decade.
- Meanwhile, poorer countries that have emitted comparatively little in the past, look bad.
- The EPI's flawed and biased approach distracts from a much-needed honest conversation about the environment in India.

CONCLUSION:

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

13. New Guidelines Against Misleading Advertisements

(GS IV: Code of Ethics)

The Centre has announced a new set of guidelines for advertisements preventing misleading ads by Celebrities.

ENVIRONMENT PERFORMANCE INDEX

NEIGHBOURHOOD: WHERE INDIA STANDS

Afghanistan	81	Pakistan	176
Sri Lanka	132	Bangladesh	177
China	160	India	180
Nepal	162		



TOP 5: Denmark, UK, Finland, Malta, Sweden

SOME KEY INDICATORS, AND INDIA

■ Biodiversity	179	■ Green House Gas emissions	171
■ Protected Areas	177	■ Biodiversity habitat index	170
■ Species Protection Index	175	■ PM 2.5	174
■ Air Quality	179	■ Waste management	151
■ Climate Policy	165		
■ Ecosystem vitality	178		

GUIDELINES ON PREVENTION OF MISLEADING ADVERTISEMENTS AND ENDORSEMENTS FOR MISLEADING ADVERTISEMENTS, 2022 (KEY TAKEAWAYS) :

- An advertisement shall be considered to be valid and not misleading:
 - If it contains truthful and honest representation;
 - Does not mislead consumers by exaggerating the accuracy
- A bait advertisement shall not seek to entice consumers to purchase goods, products or services without a reasonable prospect of selling such advertised goods, products or services at the price offered.
- No surrogate advertisement or indirect advertisement shall be made for goods or services whose advertising is otherwise prohibited or restricted by law.
- A free claims advertisement shall not describe any goods, product or service to be 'free', 'without charge' or use such other terms if the consumer has to pay anything other than the unavoidable costs.
- An advertisement that addresses or targets or uses children shall not condone, encourage, inspire or unreasonably emulate behaviour that could be dangerous for children or take advantage of children's inexperience, credulity or sense of loyalty.
- The endorsers have to make material connection disclosures and failing to do so will attract penalty under the **Consumer Protection Act (CPA)**.
 - ✓ Material disclosures mean any relationship that materially affects the weight or credibility of any endorsement which a reasonable consumer would not expect.

'ENDORSERS NEED TO DO DUE DILIGENCE'

Misleading advertisements are those, which: <ul style="list-style-type: none"> ➤ Falsely describes a product or service ➤ Gives a false guarantee to, or likely to mislead the consumers ➤ Deliberately conceals important information 	Bait advertisements: Where goods, products or services are offered for sale at low prices to attract consumers Surrogate or indirect advertising: Advertisements for goods, products or services whose advertisement is prohibited by law Free claims advertisements: Only those where consumers need to pay only for collecting or paying for delivery of items
WHAT'S BANNED	
<ul style="list-style-type: none"> ➤ Misleading & surrogate advertisements ➤ Advertisements that condone or encourage practices detrimental to children's physical or mental wellbeing ➤ Claims that consumption of a product helps enhancing physical or mental ability 	<ul style="list-style-type: none"> without valid scientific evidence ➤ Advertisements targeting children that develop negative body image ➤ Advertisements giving impression that advertised products are better than natural or traditional food
DISCLAIMERS BY MANUFACTURERS & ADVERTISERS	
<ul style="list-style-type: none"> ➤ Disclaimers must be in same language & font size as the main ads 	<ul style="list-style-type: none"> ➤ In audio-visual ads, voice over must be clear & not quick ones ➤ Owners/promoter in companies need to disclose their stake
Responsibility of endorsers: Endorsers need to do due diligence to gain adequate information of the product	

14. SEBI's Concerns Around Cryptocurrency

(GS III: Indian Economy)

Recently, the Securities and Exchange Board of India (SEBI) has given recommendations on cryptocurrencies regulations in India.

CONCERNS RAISED BY SEBI:

- Consumer protection and enforcement of any regulatory regime over crypto assets would be challenging due to the decentralized nature of digital instruments.
- There is a great likelihood of execution of unauthorized trades not in consonance with any regulatory framework.
- Clarity needs to be brought on whether cryptocurrencies can be legally defined as securities.

RECOMMENDATIONS BY SEBI:

- Crypto assets related to unregulated activities may be entrusted to an investigating authority appointed by the government and take further legal action.
- If crypto assets are not banned, then there is a need for feature-based characterization of the tokenized version of the assets, which may attract the supervision of different sectoral regulators
- The legislative framework, if proposed, would need to delineate the role for different regulators and authorities including for regulation purposes, it recommended.
- Different regulators currently regulate various entities based on the services and products they offer.
- There could also be a crypto asset referencing goods or services offered by entities, which are not regulated by any sectoral regulator.
- Consumers availing of such products should be protected through the Consumer Protection Act.
- It also suggested possible regulation of crypto trading platforms by the RBI under the **Foreign Exchange Management Act (FEMA)** as crypto assets are available for trading in a foreign jurisdiction as well and consumers abroad can remit funds to India using such currency.

CHALLENGES OF CRYPTOCURRENCY:

- **Security Risks:** Cyberattacks on wallets, exchange mechanism (Cryptojacking).
- They are prone to issues like **Hijacking, Routing Attacks, Distributed Denial of Service (DDoS) attacks**.
- **Shield to Crime:** Used for illicit trading, criminal activities and organised crimes.
- **Lack of Liquidity and Lower Acceptability:** Outside the traditional banking systems.
- **Price Volatility:** Prone to price fluctuations and waste of computing power.
- **Threat to the Indian rupee:** If a large number of investors invest in digital coins rather than rupee-based savings like provident funds, the demand of the latter will fall.

WAY FORWARD:

- Cryptocurrency is, despite all its risks, perhaps the most exciting asset of the 21st century. A decentralized digital currency that works on the very interesting and likely here-to-stay blockchain technology.
- Establishing safeguards, measures and regulations after taking inspirations from developed countries would be the better way ahead.

15. Web 5.0

(GS III: Awareness in the fields of IT)

Former Twitter CEO recently announced his vision for a new decentralized web platform that is being called Web 5.0.

What is it?

- Referred to as the Next web: web 5.0 combines the attributes of an open, linked and intelligent web to produce an emotional web.
- It will map individuals' feelings in real time and know what the person is feeling due to his interaction with the web. Web 5.0 is Web 2.0 plus Web 3.0 that will allow **users to own their identity on the Internet and control their data**.
- It holds a digital wallet that securely manages her identity, data, and authorizations for external apps and connections. Wallet will be used to sign in to a new decentralized social media app.

- **WEB 1.0 (The Read-only Web)**
- The early Internet consisted mostly of web pages linked together by hyperlinks.
- It is labelled as a read-only network because it was a static platform with no social features.
- Moreover, for the most part, the web user was a passive observer, and most of the user feedback occurred offline.

- **Web 2.0 (The Social (Read-Write) Web)**
- A Platform 2.0 website enables users to engage and communicate with one another as developers of user-generated content in a virtual environment through social media discussion.
- This is in contrast to the first generation of Web 1.0-era websites, where users were restricted to passively browsing content.

- **Web 3.0 (The Semantic (Read-Write-Execute) Web)** Web 3.0 is the advanced wave of information technology for websites and smartphones, focusing on delivering a data-driven and interactive web through machine-based information processing

- **Web 4.0 (The Mobile Web)**
- The mobile web is already a work in progress, with no clear understanding of what it would entail.
- Platform 4.0 is often referred to as the symbiotic web. The symbiotic web's fantasy is contact between humans and computers in symbiosis

- Web 5.0 (The Intelligent / Emotional (Symbiotic) Web)
- The arrival of smart devices that predict your needs based on your habits without including many clues foreshadows what is to come with the Intelligent Web.
- Symbiotic web programs will be able to interpret evidence on a more complex level, both emotionally and intellectually.

ISSUES/ CHALLENGES ASSOCIATED WITH CURRENT WEB

- A missing layer: The web democratized the exchange of information, but it is missing a key layer that is identity.
- Personal data: We struggle to secure personal data with hundreds of accounts and passwords. Identity and personal data have become the property of third parties in today's world.
- Ownership: Web 3.0 is not truly decentralized or owned by its users, but is instead controlled by various venture capitalists and limited partners.

16. Migration in India 2020-21

(GS I: Population)

Recently, a report was released named **Migration in India 2020-21**, by the **Ministry of Statistics and Programme Implementation (MoSPI)**.

Key findings:

- The all-India migration rate was 28.9 per cent in July-June 2020-21, with: 26.5 percent migration rate in rural areas and 34.9 per cent in urban areas.
- Females recorded a higher share of migration rate of 47.9 percent.
- The migration rate for males was seen at 10.7 per cent
- Reason for migration: 49.6 percent of the males migrated in search of employment, to take up better employment/business/proximity to place of work, or loss of job/closure of unit/lack of employment opportunities.

MIGRATION:

- Migration is the movement of people away from their usual place of residence, across either internal (within country) or international (across countries) borders.

REASONS FOR INTERNAL MIGRATION AND SIZE OF MIGRANT LABOUR FORCE:

- **Economic migration:** Moving to find work or pursue a particular career, e.g., Indian workers in UAE constitute the largest part of the population of UAE (27%).
- **Social migration:** Moving to be closer to family or friends or for a better quality of life. E.g., Indian diaspora in USA going for higher education and better paying jobs
- **Political migration:** Moving to escape war or political persecution, e.g., the recent Rohingya migration to Bangladesh and India from Myanmar and the Syrian refugee crisis with 6 million leaving the country and 10 million internally displaced.
- **Environmental causes** of migration: It includes natural disasters such as an earthquake. Many are forced to move during annual floods and cyclones in India. Citizens of island countries Kiribati, Tuvalu and Nauru are moving out due to sea level rise.
- **Push and pull factors driving migration:** People migrate when the perceived interaction of push and pull factors overcome the friction of moving.
 - **Push factors** are elements of the place of origin that are perceived negatively leading to a desire to leave. These include drought, famine, lack of jobs, over-population, civil war etc. Agrarian distress is a major push factor for economic migrants in India.

- **Pull factors** are elements of the destination that are perceived positively leading to place-attraction. These include a chance of a better job, education, standard of living or even better climate.

ISSUES WITH THE DATA:

- The Census underestimates the migrant worker population. Female migration is recorded as movement due to family since that is the primary reason. However, many women take up employment after migrating which is not reflected in the number of women moving for work-related reasons.
- Census data also underestimates temporary migrant labour movement.

WAY AHEAD:

- The major factor for migration is pursuit of better opportunities in life, especially in areas with political stability. Hence, the creation of favourable conditions should be ensured in the source region.
- Increasing Developmental Opportunities: When job and education opportunities are fulfilled in the native place, migration rates start declining.
- Addressing Governance Deficit: Better law and order system should be enforced in source regions.
- Industry-friendly policies: To promote business and job opportunities in rural areas, e.g. MUDRA scheme, Make in India programme etc.

17. Demolition drives violate international law

(GS II: Effect of Policies & Politics)

The Madhya Pradesh government bulldozed the houses of those who were allegedly involved in rioting. The State government claims that these demolitions are in response to illegal encroachments.

WHAT ARE THE VARIOUS DOMESTIC AND INTERNATIONAL OBLIGATIONS BEING VIOLATED?

- **Right to housing:** The right to housing is a fundamental right recognised under Article 21 of the Indian Constitution. Further, it is also a well-documented right under the international human rights law framework, which is binding on India.
- **Article 25 of the Universal Declaration of Human Rights (UDHR)** states that “everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care...”.
- **International Covenant on Civil and Political Rights (ICCPR):** Article 17 further provides that everyone has the right to own property alone as well as in association with others and that no one shall be arbitrarily deprived of his property. Thus, arbitrary interference with an individual’s property is a gross violation of the ICCPR.
- **ICESCR:** Article 11.1 of the International Covenant on Economic, Social and Cultural Rights (ICESCR) recognises “the right of everyone to an adequate standard of living for himself and his family, including adequate food, clothing and housing, and to the continuous improvement of living conditions”. Under this article, countries are under an obligation to take “appropriate steps” to ensure the realisation of these rights.
- The international human rights law identified above has been judicially incorporated by the Supreme Court of India into the Indian legal system.
The apex court in cases like **Bachan Singh vs State of Punjab**, **Vishaka vs State of Rajasthan**, and in the **Puttaswamy vs Union of India** has stated that the fundamental rights must be read and interpreted in a manner which would enhance their conformity with international human rights law.
- According to the **UN Human Rights Office**, an integral element of the right to adequate housing is ‘protection against forced evictions’. The right to adequate housing also entails freedom from arbitrary interference with one’s home, privacy, and family.

WAY FORWARD:

- As the custodian of India's constitutional order, it is high time that the judiciary acted and imposed necessary checks on the unbridled exercise of power by the executive. Courts should use international law to counter the nationalist-populist discourse.

18. China wants a larger BRICS to challenge the existing international order

(GS II: International Institutions)

A virtual meeting of BRICS+ foreign ministers was held on May 20 in which the ministers of Brazil, Russia, India, China, and South Africa (BRICS) were joined by representatives from Argentina, Egypt, Indonesia, Kazakhstan, Nigeria, the UAE, Saudi Arabia, Senegal, and Thailand.

NEED TO EXPAND:

- Ukraine war and hardened Western positions: The disruption in the international order, heightened by Russia's invasion of Ukraine and the hardening of Western positions, are leading to the making of competitive plurilateral fora.
- Russia and China have decided that this is an opportune time to expand BRICS and challenge the domain of the G7 by including members from the G20.
- China is challenging Western influence over countries and wants to use BRICS to that end. China is taking the lead and setting the agenda for BRICS expansion.
- The New Development Bank associated with BRICS, expanded membership in 2021, admitting Bangladesh, the UAE, Uruguay and Egypt. This shows the Chinese determination for an expansion process on its watch.

CRITERIA:

- The first likely criteria will be to prioritise G20 members
- From among Mexico, Indonesia, Korea, Turkey and Australia (MIKTA), only Indonesia was invited.
- Another criteria which could come up would be an emerging economy status and adherence to BRICS objectives.
- Russia and China would prefer to have Indonesia, Kazakhstan, Saudi Arabia, UAE and Argentina excluding Egypt since it is a close ally of the US.
- The UAE and Egypt could utilise their membership of NDB as a qualifier.

WAY FORWARD FOR INDIA:

- The UAE and Saudi Arabia are two countries with whom India has rapidly enhanced its engagement and are good contributors to development. Having them in the BRICS could be of advantage to India.
- Both countries have a longstanding relationship with the US, but seek to diversify and would not be averse to joining BRICS.
- India needs to ensure that expansion is not on Chinese terms and that the countries admitted are equally receptive to India.
- Bilateral engagement with them should see this perception built up.
- Leverage ISBA: ISBA may act as a phalanx within BRICS to prevent China from running away with the expansion agenda over the views of other members.

The **ISBA** is a trilateral, developmental initiative between India, Brazil and South Africa to promote South-South cooperation and exchange.

ISBA does not have a headquarters or a permanent executive secretariat.

At the highest level, it counts on the Summits of Heads of State and Government.

19. Agnipath Scheme: Need, Benefits and Challenges – Explained

(GS II: Governance)

It is a short-service manpower model under which around 45,000 to 50,000 soldiers will be recruited annually. Of these, 75% will leave the service in four years. 25% will be allowed to continue for another 15 years under permanent commission.

ELIGIBILITY CRITERIA: The new system is only for personnel below officer ranks (those who do not join the forces as commissioned officers). Aspirants between the ages of 17.5 years and 21 years will be eligible to apply.

POST SELECTION SCENARIO: Once selected, the aspirants will go through **training for six months** and then will be deployed for three and a half years.

- 30% of their salary will be set aside under a **Seva Nidhi programme**, and the Government will contribute an equal amount every month, and it will also accrue interest. At the end of the four-year period, each soldier will get **INR 11.71 lakh as a lump sum amount**, which will be tax-free.
- They will also get a INR 48 lakh life insurance cover for the four years. In case of death, the payout will be over INR 1 crore, including pay for the unserved tenure.
- There shall be no entitlement to gratuity and pensionary benefits.

BENEFITS:

- The move will make the permanent force levels much leaner for the over 13-lakh strong armed forces in the country. Further, the average age in the forces is 32 years today. It is expected to go down to 26 in 6 to 7 years with the implementation of the scheme.
- A leaner force and reduced benefits will considerably decrease the defence bill, which has been a major concern for governments for many years. This year's Budget estimate on defense pension is 4.4% of total expenditure (0.6% of the GDP). Pensions made up 28.4% of this year's defense budget.
- The scheme will ensure '**All India, All Class**' recruitment to the services. This is significant for the Army, where the regiment system has region and caste bases.
- The ex-agniveers could act as an adhoc buffer force who may be called to serve again for boosting national security in times of external/internal threats.
- The skills and experience acquired during the 4-year service will allow the soldiers to get employment in various fields. This will also lead to availability of a higher-skilled workforce to the economy which will be helpful in productivity gain and overall GDP growth.
- All major militaries in the world are undergoing reform. There is a trend towards reduction in the number of personnel and emphasis on increasing capital expenditure on modern weapons and equipment. EG: The Israeli army has service of 30 months and 22 months respectively for men and women, yet enjoys a reputation for being among the best in the world.

ISSUES:

- The government hopes to hire 46,000 "agniveer" this year. Although with the age limits, the recruitment may not include those who have been waiting for the hiring freeze since 2020 to end. More than a lakh vacancies have built up in the Indian Army alone over the last two years, but under the new policy, not all may be filled.
- Indian Army's experiments so far with diversity in closed regiments have yielded mixed results. There is a probability that the new scheme may do more harm than good in diversifying the static regiments.
- ex-agniveers may have to face hardships in getting employment after 4 years of service. Especially when meaningful employment opportunities in significant or adequate numbers still elude an ever-increasing number of graduates.
- Further, 'trained-to-kill' soldiers being demobilized every year could prove dangerous if they remain jobless and frustrated. Many believe it may lead to **militarisation of society**.
- Many experts believe that shorter duration service could compromise on training, morale and commitment in comparison to the permanent recruits. Critics argue that agniveers may turn out of to be risk-averse with the bulk looking to secure an alternate career.

- An armed forces boasting of a poor teeth-to-tail ratio is further increasing the tail.
- Impact on operational capabilities: The tooth-to-tail ratio (T3R), in military jargon, is the amount of military personnel it takes to supply and support (“tail”) each combat soldier (“tooth”).
- The Agnipath scheme also does away with the idea of a State-wise quota for recruitment into the Army, based on the Recruitable Male Population of that State which was implemented from 1966. This prevented an imbalanced army.

WAY FORWARD:

- The Government should help rehabilitate soldiers who leave the services after four years. They can be provided with skill certificates and bridge courses that will help them in finding gainful employment.
- No reform can be fool-proof and without teething troubles. But as Agnipath Scheme concerns national defence and security, the Government will need to have a plan to anticipate and address the problems that lie beyond the bold step forward.

20. Fragile State of Nuclear Disarmament

(GS II: International Institutions ; GS III: Security)

Recently, **Stockholm International Peace Research Institute (SIPRI)** released its yearbook a few days back highlighting some worrying trends of the past year in international security.

The expected rise of the global nuclear arsenal was the chief cause of concern among SIPRI experts.

KEY FINDINGS:

- Military spending Flattened: During 2012-2021, military spending as a percentage of GDP has largely been stable. If anything, the average worldwide trend has been slightly downward.
- Russia leads the charge in absolute numbers of nuclear inventory (5977 against the U.S.’s 5428). However, it is the U.S. that has the largest number of deployed warheads
- The global discourse has created a sense of fear around China’s military modernization and their upward trend in nuclear weapons development while the thousands of nuclear weapons held by the U.S. don’t seem to attract a similar level of attention.
- Military modernization by nuclear countries is seen to be a global trend that may result in aggravating security concerns for other countries.
- The SIPRI yearbook has highlighted India as being the top weapons importer during the 2017-2021 period.

KEY CONCERNS FLAGGED:

- The yearbook mentions the following as worrying indicators of an unstable system:
 - Low level border clashes between India and Pakistan,
 - Civil war in Afghanistan
 - Armed conflict in Myanmar
- The marginal downsizing observed in the nuclear arsenal has come mostly from the U.S. and Russia dismantling retired warheads. But the Russian invasion of Ukraine has raised some serious concerns because of the continuous rhetoric from the Russia over possible use of nuclear weapons.
- China’s recent activities surrounding construction of 300 new nuclear missile silos have also been cause of worry. China has stated that they have made “impressive progress” vis-à-vis their nuclear arsenal
- In the subcontinent, India and Pakistan seem to be making gains over their nuclear arsenal (in absolute numbers) while also looking at the development and procurement of newer and more efficient forms of delivery systems

WHAT IS THE GENERAL ATTITUDE AMONG COUNTRIES ABOUT EXISTING NUCLEAR AND ARMS RELATED TREATIES?

- There is a collective belief on dangers of nuclear weapons & need for multilateral agreements.
- Earlier in 2022, the leaders of the **P5 countries (China, France, Russia, the U.K. and the U.S.)** issued a joint statement affirming the belief that “a nuclear war cannot be won and must never be fought”.

- The joint statement also highlighted their collective belief that bilateral and multilateral arms control agreements and commitments were indeed important.
- Even though there is upward trend in absolute numbers of arms and nuclear arsenals, the nation states are making sure to remain well within the ambit of what the treaties and agreements ask for.
- The year 2021 also saw the **Treaty on the Prohibition of Nuclear Weapons, 2017** coming into effect. The Nuclear Suppliers Group (NSG) and the Missile Technology Control Regimes (MTCR) held their annual meetings despite decision making being limited due to the COVID-19 pandemic.

WHAT IS INDIA'S STAND ON NUCLEAR DISARMAMENT?

- India being a declared nuclear power remains committed to the policy of No First Use (NFU) against nuclear weapon states and non-use against non-nuclear-weapon states.
- India believes that nuclear disarmament can be achieved through a step-by-step process underwritten by a universal commitment and an agreed multilateral framework after meaningful dialogues among all States possessing nuclear weapons, for building trust and confidence.
- The Conference on Disarmament (CD) remains the “world’s single multilateral disarmament negotiating forum” and India supports holding of negotiations on a Comprehensive Nuclear Weapons Convention at the CD.
- India also remains committed to negotiations regarding a Fissile Material Cut-off Treaty (FMCT) in the CD.

21. Parliament & Women

(GS I: Women ; GS II: Parliament)

Due to systemic issues, Parliament continues to alienate women. The number of women representatives is still considerably small, but even more subtly, Parliament as a workspace continues to be built exclusively for men.

WOMEN'S PARTICIPATION IN THE INITIAL YEARS

- In 1952, when the Indian Republic held its first Parliamentary session, there were 39 strong, intelligent, and passionate women as its member.
- Leading in the world in inclusiveness: At a time when women formed only 1.7% of the total members of the United States Congress and 1.1% of the Parliament of the United Kingdom, India was leading the way in the fight towards more inclusive world democracies with 5.5% women representation. Women played an important role in India’s struggle for independence and that contribution was reflected in their presence in the parliament.

CURRENT SCENARIO:

- In India, women currently make up 14.6 per cent of MPs (78 MPs) in the Lok Sabha, which is a historic high.
- Voluntary parliamentary quota: West Bengal and Odisha have opted for voluntary parliamentary quotas, fielding 40 per cent and 33 per cent women candidates, respectively.
- The bill to reserve 33 per cent seats for women in Parliament and state legislatures was passed in the Rajya Sabha in 2010, but it was never introduced in the Lok Sabha.
- India ranks a dismal 146th in women’s representation in the national Parliament. At the turn of the century, it ranked 66th.
- The decline has come because progress has been piecemeal — several other countries have improved their share of women in Parliament far more rapidly.
- Lack of inclusivity in the Parliament.
- Absence of gender-neutral language: A closer look at our parliamentary discourse and communication reveals a concerning and disconcerting absence of gender-neutral language. After 75 years of Independence, Parliament often refers to women in leadership positions as Chairmen and party men.
- Lack of gender-neutral Acts: Acts have made references to women not as leaders or professionals (such as policemen), but usually as victims of crimes.

- Illiteracy: It is one of the main hurdles in making women politically empowered. Women candidates have less education and experience, on average, compared to male candidates
- Gender Disparities: Gender inequalities in terms of education, ownership of resources and continual biased attitudes still act as barriers for women leaders.
- Societal and cultural norms: They are imposed on women bar them from entering politics. They have to accept the dictates imposed on them and bear the burden of society.
- The root of such instances lies with a gender-conforming Constitution. In its present state, the Constitution reinforces historical stereotypes that women and transgender people cannot be in leadership positions, such as the President and the Vice-President of India. This represents the failure of the many Union Governments which did not take the initiative of amending it.

WAY FORWARD

- Correcting the language: Internationally, even mature democracies that legalized universal suffrage after India, such as Canada (1960 for Aboriginal women), Australia (1962 for Indigenous women), and the United States (1965 for women of African-American descent), have now taken concrete measures towards gender-inclusive legislation and communication.
- Amendments: India can and must begin with an amendment to the Constitution and the entire reservoir of laws.
- Focus on the deeper issues of aspiration: Once the language is corrected, the entire country, including Parliament, can focus on the deeper issues of the aspirations and growth of its woman workforce.
- Women staff in Parliament: Women are not adequately represented in Parliament staff. We need a single, transparent appointment and promotion process for women staff in Parliament.

22. How lightning kills?

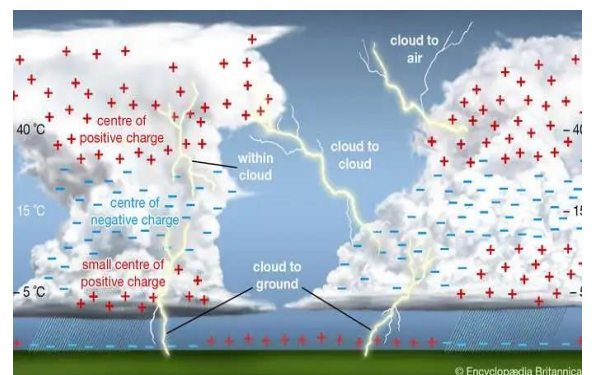
(GS I : Geophysical Phenomena)

Lightning is a very rapid and massive discharge of electricity in the atmosphere. It is the process of occurrence of a natural 'electrical discharge of very short duration and high voltage between a cloud and the ground or within a cloud.

- These discharges are generated in giant moisture-bearing clouds that are 10-12 km tall. These clouds have their bases about 1-2 km from the Earth's surface.
- There are two types of lightning.
 - Intercloud or intracloud (IC) lightning: These are visible and harmless.
 - Cloud to ground (CG) lightning: This is harmful as the 'high electric voltage discharge for very short time leads to electrocution.

PROCESS:

- It is a result of the difference in electrical charge between two points.
- As water vapour moves upwards in the cloud, the falling temperature causes it to condense. A huge amount of heat is generated in the process, pushing the water molecules further up.
- As they move to temperatures below zero, droplets change into ice crystals. This leads to a system where smaller ice crystals move upwards while larger ones come down.
- The resulting collisions trigger the release of electrons. This process is similar to the generation of electric sparks. The moving free electrons cause more collisions and more electrons, leading to a chain reaction.



- Over time, this process results in a situation where the top layer of the cloud gets positively charged and the middle layer is negatively charged.
- The electrical potential difference between the two layers is huge (a billion to 10 billion volts). So, in a short time, a massive current (100,000 to a million amperes) starts to flow between the layers.
- An enormous amount of heat is produced, and this leads to the heating of the air column between the two layers of the cloud. As the heated air column expands, it produces shock waves that result in thunder.
- The Earth is a good conductor of electricity, it is electrically neutral. However, in comparison to the middle layer of the cloud, it becomes positively charged. As a result, about 15%-20% of the current gets directed towards the Earth as lightning.

LIGHTNING STRIKES IN INDIA:

- According to a report on lightning by Climate Resilient Observing Systems Promotion Council (CROPC), in 2019-20, about 1.4 crore lightning strikes were recorded which increased to 1.85 crores in 2020-21.
- Madhya Pradesh has reported the largest number of cloud to ground lightning strikes followed by Chhattisgarh, Maharashtra, Odisha and West Bengal.

WAYS TO REDUCE IMPACT:

- Lightning needs to be listed as a notified disaster by the Ministry of Home to get required attention in national policy directives and developmental programmes.
- More than 96% of lightning deaths happen in rural areas. As such, most of the mitigation and public awareness programmes need to focus on these communities.

Thirdly, lightning protection devices are fairly unsophisticated and low-cost. Yet, their deployment in the rural areas, as of now, is extremely low. Hence, they should be deployed.

Govt safety guidelines

- NDMA guidelines
- Lightning warning system
- Nowcast warnings of IMD
- Satellite info on convective clouds by ISRO
- Damini App (IITM + ESSO)
- Lightning Resilient India Campaign

Suggestions/ Measures

- Systematic approach
- Early warning & forecast dissemination to remote areas
- Lightning micro-zonation
- Multi-stakeholder engagement

23. Banning Single-Use Plastic

(GS III: Environmental Pollution)

Recently, the Centre has defined a list of single-use plastic items that will be banned from 1st July 2022. As the name suggests, it refers to plastic items that are used once and discarded.

The manufacture, import, stocking, distribution, sale and use of notified single-use plastic, including polystyrene and expanded polystyrene, commodities shall be prohibited with effect from the 1st July, 2022.

WHY ARE SINGLE USE PLASTICS DISASTROUS?

- By 2050, it has been predicted that single-use plastic might contribute 5–10% of greenhouse gas emissions, depending on the production trajectory currently in place.
- India ranks 94th out of the top 100 nations for producing the most single-use plastic garbage
- India produces 4 kg of single-use plastic garbage per person yearly.

- The decision to ban the initial batch of single-use plastic items was made due to their "difficulty of collection, and consequently recycling."
- These items are difficult to collect, especially since most are either small, or discarded directly into the environment – like ice-cream sticks.
- Microplastics, which are particularly dangerous, are created when plastic is left in the environment for a very long time and does not decompose. These microplastics then find their way into our food supplies and eventually into our bodies.
- The items chosen are of low value and of low turnover and are unlikely to have a big economic impact, which could be a contributing reason.

HOW WILL THE BAN BE ENFORCED?

- The ban will be monitored by the CPCB from the Centre, and by the State Pollution Control Boards (SPCBs) that will report to the Centre regularly.
- Directions have been issued at national, state and local levels — for example, to all petrochemical industries — to not supply raw materials to industries engaged in the banned items.
- Those found violating the ban can be penalised under the Environment Protection Act 1986 – which allows for imprisonment up to 5 years, or a penalty up to Rs 1 lakh, or both.
- Violators can also be asked to pay Environmental Damage Compensation by the SPCB.

HOW DO OTHER NATIONS HANDLE SINGLE-USE PLASTIC?

- In 2002, Bangladesh became the first nation to outlaw thin plastic bags. In July 2019, New Zealand became the most recent nation to outlaw plastic bags.
- The Single-Use Plastics Directive entered into force in the European Union on July 2, 2021. (EU).
- Single-use plastic plates, cutlery, straws, balloon sticks, and cotton buds cannot be sold in EU member states due to the directive's ban on certain single-use plastics for which substitutes are available.

24. A wish list for reform in India's higher judiciary

(GS II: Judiciary)

The proposal for an increase in the retirement age of judges of the Supreme Court of India from 65 to 67 years is under consideration.

IMPORTANT ISSUES ASSOCIATED WITH THE APPOINTMENT AND WORKING OF JUDGES IN THE HIGHER JUDICIARY

- The disparity between the retirement ages of HC (62year) and SC judges(65year) should be removed. At present, this differential retirement age puts intense pressure and competition among HC judges to make it to the top court in order to get three more years.
- At present, there is no uniformity in the working of the judge's post-retirement. A very small minority of judges devote themselves to public service. Post retirement Supreme Court judges focus for an appointment to constitutional posts/tribunals/commissions.
- It is generally assumed that the senior most judge of the Supreme Court should be the Chief Justice of India, but the Constitution mandates no such thing. The requirement about appointing the senior-most judge to be the CJI was devised in the Second Judges case (1993) and has no constitutional legitimacy.
- When a serving CJI retires, his successor should be the best reputed Chief Justice of a High Court who has proved himself worthy both in judicial office and administrative leadership and has the qualities of a good leader. But he should not function as the primus super pares i.e., first among the equals as many CJIs do.

REFORMS NEEDED:

- It is high time that we do away with the disparity between the retirement ages of High Court and Supreme Court judges since there is no good reason for this difference.

- It would be a worthwhile reform to create a cadre of public service for retired judges and from this pool make appointments to the constitutional and statutory posts and special assignments. Such judges should receive the full pay and the facilities of a judge of the Supreme Court for life
- We should have a culture of public service for senior judges, and those who do not fit in such a culture should not be a part of senior ranks.
- The public purpose is better served by ensuring that the judges of the Supreme Court during their entire tenure are not swayed by their expectations or aspirations to the higher office of CJI. Indeed, any one particular person should not have a vested interest in the top job, and we are better served by eliminating such expectations.
- All the judges, thus, should serve equally under the constitutional mandate during the entire length of their tenure.
- The CJI should function in a true collegiate manner, especially in regard to the roster of allotment of cases, especially the sensitive ones, and appointments to the Supreme Court and High Courts and other important matters of judicial and administrative importance.

CONCLUSION:

Though there are several issues that need reforms in the higher judiciary, the above reforms can serve as the precursor to the other reforms to come. But all these reforms must keep in mind that the independence of higher judiciary is very essential for the effective discharge of the duties assigned to it.

25. The absurdity of the anti defection law

(GS II: Parliament & State legislature)

Uddhav Thackeray's government facing internal dissent from a block of 22 MLA led by Eknath Shinde, has brought the anti-defection law again into the spotlight. Such events were also witnessed in Puducherry, Madhya Pradesh, and Karnataka.

ANTI-DEFECTION LAW

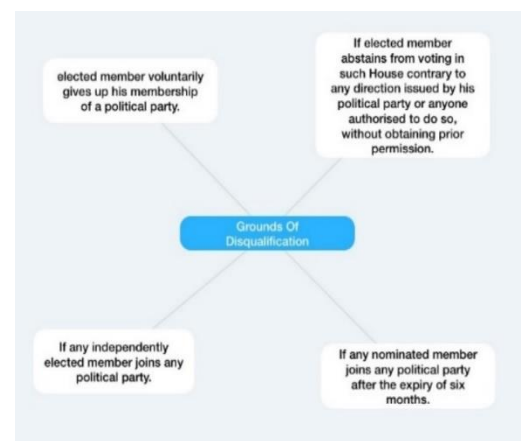
- The anti-defection law was included in the constitution as the Tenth schedule via the 52nd amendment act 1985 to combat the evil of political defection.
- The law punishes an individual member of parliament or even MLAs for leaving one party for another.
- The decision on a question of disqualification on the ground of defection is taken by the Chairman or Speaker of such house which is subject to judicial review.

PURPOSE OF THE LAW

- The main purpose was to preserve the stability of the government and insulate them from the defection of the legislator from changing parties and was in the response to the toppling of multiple state governments back in 1985 due to hopping MLAs.
- Any member of parliament and legislature would be disqualified from the office if they vote on any motion contrary to the direction of the party, to ensure that party member does not violate the mandate of the party.

ISSUES:

- The drafting committee believed that India needed a government that was accountable even at the cost of stability but the anti-defection weakened the accountability mechanism.
- MP/MLA has absolutely no freedom to vote. Their judgment on any issue has to blindly follow the direction of the party.



- If an MP has no freedom to take decisions on policy and legislative proposals, there would be no incentive to put in the effort to understand the different policy choices and their outcomes.
- The legislature is accountable to the voter and the government is accountable to the legislature, this chain of accountability has been broken by the anti-defection law.
- The political system has found a way to topple the government by reducing the total membership through resignation which again affects the stability which was the core purpose of the anti-defection law.
- Many times, the Speaker has delayed deciding on the disqualification.

SUGGESTIONS

- The election commission should be the deciding authority in defection cases.
- The Supreme court has suggested that parliament should set up an independent tribunal headed by a retired judge in case of anti-defection.
- Anti-defection rule should be applied only at the time of a no-confidence motion to save the government.

26. The role of caste in economic transformation

(GS I: Indian Society)

Caste through its rigid social control and networks facilitates economic mobility for some and erects barriers for others by mounting disadvantages on them.

Caste shapes the ownership pattern of land and capital and simultaneously regulates access to political, social, and economic capital too.

THERE ARE THREE WAYS IN WHICH CASTE IMPEDES THE ECONOMIC TRANSFORMATION IN INDIA:

- Ownership and land inequality related to productivity failure within the farm sector;
- Elite bias in higher education and historical neglect of mass education, and
- Caste-based entry barriers and exclusive networks in the modern sector.

The divergent outcomes in structural transformation between countries in the global South, particularly India, China and South East Asia, is due to these three factors.

LAND OWNERSHIP, PRODUCTIVITY

- India has one of the highest land inequalities in the world today.
- Unequal distribution of land was perpetuated by British colonial intervention that legalized a traditional disparity.
- Some castes were assigned land ownership at the expense of others by the British for its administrative practices.
- Even the subsequent land reform that took place after India's independence largely excluded Dalits and lower castes.
- Further green revolution tightened landlords' social control over others in rural India.
- Land still defines social status and pride in many parts of rural India.

MODERN DAY REAL ESTATE

- Real estate and construction still work as a source of inheritance, family lineage and speculative capital
- Those castes that had a stake in agriculture did not benefit from the economic reforms (1991) for two reasons — historical neglect of education and the entry barriers erected by the upper castes in modern sectors.

NEGLECT OF EDUCATION

- If strong growth in productivity within the farm sector is crucial for sustained economic growth, an educated workforce is equally necessary to move to the modern sectors. India failed on both accounts.
- The Indian education system has been suffering from an elite bias since colonial times.
- It primarily focussed on higher education for the elites neglecting basic education of mass. Inequality in access to education got translated into inequality in other economic domains including wage differentials in India.

- In contrast, Chinese and other East Asian countries invested in basic education and gradually shifted towards higher education.

BARRIER TO ENTREPRENEURSHIP

- India did not witness such capitalism from below except in a few cases.
- Caste shaped policy outcomes, including India's highly unequal land reform and lack of public provision of education and health, which in turn erected barriers to economic diversification.
- Castes that were already in control of trading and industrial spaces resisted the entry of others.

CONCLUSION: Truncated transformation is partly an outcome of this interface between caste and economy. For caste is not a residual variable, but is an active agent which stifles economic transformation.

27. What FPIs' market exit means ?

(GS III: Effect of Liberalization)

Foreign portfolio investors have pulled out Rs 42,000 crore this month amid rising inflation and monetary policy tightening in the US.

- FPI involves an investor buying foreign financial assets such as fixed deposits, stocks, and mutual funds. All the investments are passively held by the investors.
- Capital flight is a phenomenon characterized by large outflows of assets/ capital from a country due to political or economic instability, resulting in negative economic consequences to that country.

REASONS FOR CAPITAL FLIGHT

- The tightening of monetary policy by the US Fed
- Rate hiking by other central banks, including in Britain and the Eurozone
- An appreciating dollar
- Concerns regarding the possibility of a recession in the US
- Rising inflation
- In times of global uncertainty, foreign investors embrace a risk-off trade, meaning they move money from risky assets such as equities and add more of bonds and gold.
- When interest rates rise in the US and other advanced economies, they withdraw money from emerging markets such as India and invest in the bonds in their domestic markets.

HOW DOES THE CAPITAL FLIGHT AFFECT THE MARKETS AND THE RUPEE?

- Capital market- The pullout is dampening sentiment in equity and forex markets. The impact of FPI selling on markets is visible with increase in volatility and declining equity prices.
- Forex- India's foreign exchange reserves have fallen \$596.45 billion as on June 10, 2022, mainly due to the dollar appreciation and FPI withdrawals.
- Depreciation- The rupee has plunged 7.3% to an all-time low of 78.30/32 against the dollar. If the rupee does not strengthen, FPI outflows will continue, which is another negative.
- Inflation- Lower rupee against the dollar keeps import bills higher, pushing inflation even higher than it is now.
- Indians abroad- Travellers and students studying abroad will have to shell out more rupees to buy dollars from banks.
- Fuel price- People are directly impacted by the rupee fall as fuel prices shoot up.
- DII inflow- The retail flow and domestic institutional investors (DIIs) inflow is weakening now, and the markets could weaken further if the FPI outflows continue.

28. Open Network for Digital Commerce

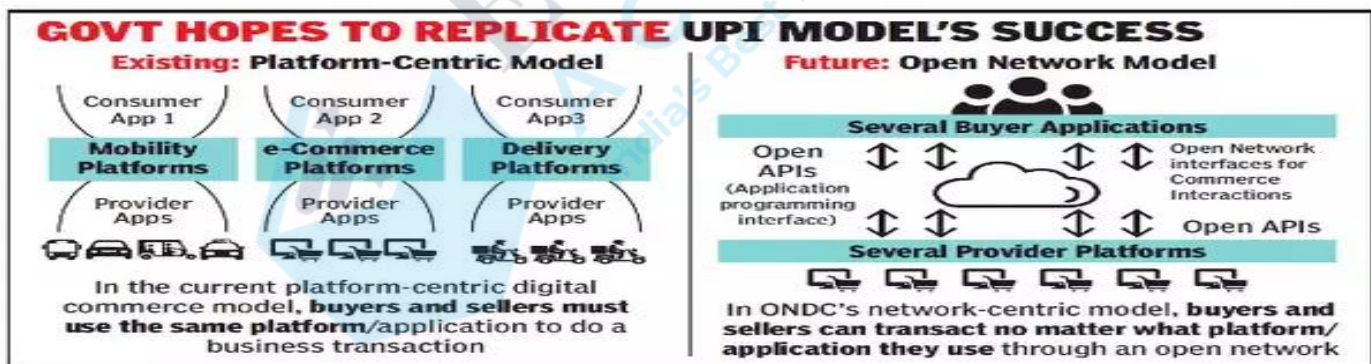
(GS III: Indian Economy)

Recently, the government has launched the pilot phase of Open Network for Digital Commerce (ONDC) with an aim to “democratize” the country’s fast growing digital e-commerce space that is currently dominated by the two U.S.-headquartered firms — Amazon and Walmart.

- ONDC is a freely accessible government-backed platform that aims to democratize e-commerce by moving it from a platform-centric model to an open network for buying and selling of goods and services.
- Under ONDC, it is envisaged that a buyer registered on one participating e-commerce site (for example, Amazon) may purchase goods from a seller on another participating e-commerce site (for example, Flipkart).
- Presently, buyers and sellers have to be on the same app for a transaction which happens through the same platform. For example, a buyer needs to go to Amazon, to buy a product from a seller on Amazon.
- It is a not-for-profit organization that will offer a network to enable local digital commerce stores across industries to be discovered and engaged by any network-enabled applications.

WHAT IS THE SIGNIFICANCE?

- On ONDC, buyers and sellers may transact irrespective of the fact that they are attached to one specific e-commerce portal. This could give a huge booster shot to smaller online retailers and new entrants.
- ONDC is expected to digitise the entire value chain, standardise operations, promote inclusion of suppliers, derive efficiency in logistics and enhance value for consumers.
- The platform envisages equal-opportunity participation and is expected to make e-commerce more inclusive and accessible for consumers as they can potentially discover any seller, product or service by using any compatible application/platform, thus increasing their freedom of choice.
- It will enable transactions of any denomination, thus making ONDC a truly ‘open network for democratic commerce’.
- Over the next five years, the ONDC expects to bring on board 90 crore users and 12 lakh sellers on the network, enabling 730 crore additional purchases.



29. The Problems Plaguing Thermal Power Generators

(GS III: Infrastructure → Energy)

On June 10, India’s power demand touched a record high of 211 MW even as the coal shortage continued with coal stocks available only for eight days.

BACKGROUND OF POWER CRISIS IN INDIA

- The power demand breached the 200 MW level on several occasions as in the last two months, temperatures soared and the economy recovered.

- To bridge the gap between shortage in domestic supply and increasing demand, power-generating companies or 'gencos' were directed to use imported coal for 10% of their requirement, failing which their domestic supplies would be cut.

CAUSES OF COAL SUPPLY SHORTAGES

- Despite India being the second largest producer of coal, with reserves that could last up to 100 years, year after year, the shortage of coal supplies continues to be an issue.
- Stagnation in Domestic Coal Production: the domestic production of coal stagnated between FY18 and FY21, but revived in FY22. This resulted in poor availability of coal to thermal power plants.
- Rise in Demand: In the recent months, the power demand surged owing to economic recovery and hotter weather conditions, leading to need for more coal.
- Reduced Import: Until FY20, domestic sources contributed to about 90% of the power sector's coal receipts; the remaining was filled by imports.
- But by FY22, the reliance on imports dwindled to 3.8% which built pressure on domestic supplies.
- Causes for Reduced Coal Imports: This dip in imports can be attributed to the skyrocketing prices of coal in the international markets. The price of imported coal is nearly 5-6 times higher than domestic supply.

IMPACT OF RISE IN COAL IMPORT

- As union government directed DISCOMS to use imported coal for 10% of their requirement, States are wary of using imported coal as it would raise the cost of power substantially.
- Rise in Cost: The shortfall in domestic supplies and the rising cost of imports have put power plants in a precarious situation.
- The use of imported coal will also push up the price of power supply to the power distribution companies or 'Discoms,' often dubbed as the weakest link in the power sector chain.
- Discoms are bleeding because the revenue they generate is much lower than their costs.
- Financial Distress: Discoms owe long-standing dues to the tune of ₹16 lakh crore to the gencos. Delays in payments by discoms create a working capital crunch for generating companies which in turn inhibits them from procuring an adequate quantity of coal.

WAY FORWARD:

- India must enhance investments in the deployment of clean coal technologies throughout the coal value chain. Government power utilities must show the way by investing in the deployment of advanced clean coal technologies.
- India should also be very cautious of adding new coal capacity beyond 2030 as it risks locking in resources.

30. Why was there a fuel shortage in India?

(GS III: Infrastructure → Energy)

For much of June, several cities across the country have witnessed petrol pumps rationing supplies or shutting due to non-availability of fuel, leading to concerns about shortages and triggering panic buying among some consumers.

WHY THE SHORTAGE?

- As global crude prices increased and the value of the rupee fell simultaneously, OMCs such as state-owned IOCL, HPCL, and BPCL, and private companies, started to report losses on retail sales.
- As the losses mounted, downstream oil companies tried to reduce supply to petrol pump vendors, which resulted in fuel shortage at pumps in multiple states.
- The government blamed the scarcity of fuel on the surge in demand — the increase being as high as 50% in the first half of June 2022
- States that were seeing shortages were those in which large quantities were supplied by retail outlets belonging to private marketing companies, and where the distances from supply locations — terminals and depots — are larger.

- Some public sector oil companies also reduced supply to dealers to cut their losses by discontinuing the fuel on credit offered to pump owners, thus impacting their fuel lift. However, Indian Oil has continued with the credit system

WAY OUT:

- India has taken advantage of discounted prices offered by Moscow to ramp up crude imports from Russia at a time of surging global energy prices.
- The solution lies in raising retail petrol and diesel prices to ensure oil companies do not lose money.

31. Bringing MSMEs into Global Value Chains

(GS III: Indian Economy)

Recently, World MSME Day was celebrated on June 27 for giving attention to the MSMEs. Just like any other large businesses in India, they have also contributed to growth and achievements.

Composite Criteria: Investment in Plant & Machinery/equipment and Annual Turnover

Classification	Micro	Small	Medium
Manufacturing Enterprises and Enterprises rendering Services	Investment in Plant and Machinery or Equipment: Not more than Rs.1 crore and Annual Turnover ; not more than Rs. 5 crore	Investment in Plant and Machinery or Equipment: Not more than Rs.10 crore and Annual Turnover ; not more than Rs. 50 crore	Investment in Plant and Machinery or Equipment: Not more than Rs.50 crore and Annual Turnover ; not more than Rs. 250 crore

IMPORTANCE OF MSMEs

- They are the backbone of the Indian economy. For example, it accounts for over 99% of businesses in India.
- They have given valuable contributions to job creation and sustainable development across the world. For example, MSMEs are the largest employer in India outside of agriculture, validated by the fact that MSMEs employ over 11.1 crore people or 45% of all workers.

WHAT ARE THE CHALLENGES IN THE FUNCTIONING OF THE MSMEs?

- The Pandemic-induced disruptions severely impacted MSMEs. They have faced a lack of access to resources
- Due to war, they are facing supply shocks and soaring fuel, food, and fertilizer prices.
- Further, the ongoing climate crisis is going to become the greatest disruption multiplier of all.
- Most MSMEs do not meet today's standards on productivity, environmental sustainability, health and safety of workers.
- There is a high degree of informality, with many enterprises unregistered, and both employers and workers lack awareness of and commitment to comply with labour and environmental laws.
- The informal enterprises cannot access formal MSME support and financing nor participate in global value chains that require full compliance with all applicable regulations.
- The economic landscape is changing due to digitalization, greening, and the reorganization of value chains.
 - Digitalization concerns the integration of digital technologies, such as big data, artificial intelligence, and virtual reality, in business processes, also known as Industry 4.0
 - Greening" requires cleantech innovation and entrepreneurship to accelerate the transition to a circular and low carbon economy.
 - To increase the resilience of supply in response to recent shocks, and other reasons like shift in the production locations in the global value chains across countries and regions.

MEASURES TAKEN BY THE GOVERNMENT AND OTHER AGENCIES

- The government has launched the Atma Nirbhar Bharat (self-reliant India) and has identified the development of the MSME ecosystem as a top priority for achieving this.
- India's ambitious "Make in India" campaign wants to make India a global manufacturing hub.

- The production-linked incentives (PLI) schemes and the recently launched zero effect zero defect (ZED) certification are helping to promote and boost the MSMEs sector.

THE WAY FORWARD

- To leverage the demographic dividend, India needs to create many jobs, especially for the one million young people entering the labor market every month.
- The policymakers should work on creating an environment to fully unlock emerging opportunities in the rapidly changing global value chain ecosystem and maximize the demographic dividend
- MSME owners should commit to formalize their businesses, investing in improved productivity, compliance, and most of all, decent work and jobs for India’s aspiring youth.

32. Indian laws on Abortions

(GS I: Women)

In a significant step backwards for women’s rights in the U.S., the Supreme Court overturned the landmark Roe v. Wade judgement of 1973, which gave women in America the right to have an abortion before the foetus is viable outside the womb or before the 24-28 week mark.

Abortion rights, which have been available to women for over two generations — will now be determined by individual States.

ABORTION: It is defined as the termination of pregnancy by various methods, including medical surgery before the foetus is able to sustain independent life.

HOW DID ABORTION LAWS COME ABOUT IN INDIA?

- In the 1960s, in the wake of a high number of induced abortions taking place, the Union government ordered the constitution of the Shantilal Shah Committee to deliberate on the legalisation of abortion in the country.

The Medical Termination Of Pregnancy (MTP) Act was brought into force in 1971. This law is an exception to the Indian Penal Code (IPC) provisions of 312 and 313 and sets out the rules of how and when a medical abortion can be carried out.

Confidentiality: The “name and other particulars of a woman whose pregnancy has been terminated shall not be revealed”, except to a person authorized in any law that is currently in force according to 2021 law.

SIGNIFICANCE:

- The new law will contribute towards ending preventable maternal mortality to help meet the Sustainable Development Goals (SDGs) 3.1, 3.7 and 5.6
- SDG 3.1 pertains to reducing maternal mortality ratio whereas SDGs 3.7 and 5.6 pertain to universal access to sexual and reproductive health and rights.
- Amendments will increase the ambit and access of women to safe abortion services and will ensure dignity, autonomy, confidentiality and justice for women who need to terminate pregnancy.

ISSUES:

- Different opinions on Termination: One opinion is that terminating a pregnancy is the choice of the pregnant woman and a part of her reproductive rights while the other is that the state has an obligation to protect life, and hence should provide for the protection of the foetus.

The MTP Act 1971 and The MTP Act Amendments 2021		
	MTP Act 1971	The MTP Amendment Act 2021
Indications (Contraceptive failure)	Only applies to married women	Unmarried women are also covered
Gestational Age Limit	20 weeks for all indications	24 weeks for rape survivors Beyond 24 weeks for substantial fetal abnormalities
Medical practitioner opinions required before termination	One RMP till 12 weeks Two RMPs till 20 weeks	One RMP till 20 weeks Two RMPs 20-24 weeks Medical Board approval after 24 weeks
Breach of the woman's confidentiality	Fine up to Rs 1000	Fine and/or Imprisonment of 1 year

- The Act allows abortion after 24 weeks only in cases where a Medical Board diagnoses substantial foetal abnormalities. This implies that for a case requiring abortion due to rape, that exceeds 24-weeks, the only recourse remains through a Writ Petition.
- The Act require abortion to be performed only by doctors with specialisation in gynaecology or obstetrics but there is a 75% shortage of such doctors in community health centers in rural areas.

Judicial interventions in cases of abortions:

Justice K.S.Puttaswamy v. Union of India and others: The Supreme Court had held that the decision by a pregnant person on whether to continue a pregnancy or not is part of such a person's right to privacy as well and, therefore, the right to life and personal liberty under Article 21 of the Constitution.

Calcutta High Court: It allowed a 37 year old woman, who was 34 weeks into her pregnancy, to get a medical abortion as the foetus was diagnosed with an incurable spinal condition. This judgment allowed abortion for the furthest gestation in the country so far.

WAY FORWARD:

- The government needs to ensure that all norms and standardised protocols in clinical practice to facilitate abortions are followed in health care institutions across the country.
- Along with that, the question of abortion needs to be decided on the basis of human rights, the principles of solid science, and in step with advancements in technology.

33. Outcomes of the WTO Ministerial Conference

(GS II: International Institutions)

Recently, member countries of the World Trade Organization (WTO) wrapped up the Ministerial Conference's twelfth outing (MC12).

KEY OUTCOMES: "GENEVA PACKAGE"

- Relaxing patent regulations to achieve global vaccine equity
 - Ensuring food security
 - According subsidies to the fisheries sector
 - Continuing moratoriums relevant to e-commerce
- Together they constitute what WTO Director-General is referred to as the "Geneva Package."

WHAT IS THE WTO'S MINISTERIAL CONFERENCE?

- The MC is at the very top of WTO's organizational chart.
- It meets once every two years and can take decisions on all matters under any multilateral trade agreement.
- All decisions at the WTO are made collectively and through consensus among member countries at varied councils and committees.

MAJOR DEBATES AT THE MC12

- ✓ Agriculture
 - India is a significant contributor to the World Food Programme (WFP).
 - India had earlier stated that it had never imposed export restrictions for procurement under the programme.
 - It put forth that a blanket exemption could constrain its work in ensuring food security back home.
 - In such a situation, it would have to keep its WFP commitments irrespective of its domestic needs.
 - Negotiators could not reach agreements on issues such as permissible public stockholding threshold for domestic food security, domestic support to agriculture, cotton, and market access.
- ✓ Fisheries

- India successfully managed to carve out an agreement on ELIMINATING subsidies to those engaged in illegal, unreported and unregulated fishing.
 - The only exception for continuing subsidies for overfished stock is when they are deemed essential to rebuild them to a biologically sustainable level.
 - Overfishing refers to exploiting fishes at a pace faster than they could replenish themselves — currently standing at 34% as per the UN Food and Agriculture Organization (FAO).
 - Further, the agreements hold that there would be no limitation on subsidies by developing or least-developed countries for fishing within their exclusive economic zones (EEZ).
- ✓ Patent relaxations
- Member countries agreed on authorising the use of a patent for producing COVID-19 vaccines by a member country, without the consent of the rights holder.
 - Further, it asks member countries to waive requirements, including export restrictions, set forth by WTO regulations to supply domestic markets and member countries with any number of vaccines.

34. Critical Information Infrastructure

(GS III: Cyber Security)

The Union Ministry of Electronics and IT (MeitY) has declared IT resources of ICICI Bank, HDFC Bank and UPI managing entity NPCI as 'critical information infrastructure'.

WHAT IS CRITICAL INFORMATION INFRASTRUCTURE (CIC)?

- The Information Technology Act, 2000 explicitly gives definition of CIC.
- It defines CIC as a computer resource, the incapacitation or destruction of which shall have debilitating impact on national security, economy, public health or safety.
- It basically aims to protect the digital assets.
- The government, under the Act, has the power to declare any data, database, IT network or communications infrastructure as CII.

WHY IS CII CLASSIFICATION AND PROTECTION NECESSARY?

- IT resources form the backbone of countless critical operations in a country's infrastructure.
- Given their interconnectedness, disruptions can have a cascading effect across sectors.

RECENT INCIDENTS OF CIC INCAPACITATION

- In October, 2020 as India battled the pandemic, the electric grid supply to Mumbai suddenly stopped. It hit the mega city's hospitals, trains and businesses.
- The incident underlined the possibility of hostile state and non-state actors probing internet-dependent critical systems in other countries, and the necessity to fortify such assets.

HOW ARE CIIS PROTECTED IN INDIA?

- Created in January 2014, the National Critical Information Infrastructure Protection Centre (NCIIPC) is the nodal agency.
- It takes all measures to protect the nation's critical information infrastructure.
- It is mandated to guard CIIs from "unauthorized access, modification, use, disclosure, disruption, incapacitation or distraction".
- NCIIPC monitors and forecasts national-level threats to CII for policy guidance, expertise sharing and situational awareness for early warning or alerts.

35. Oil palm

(GS III: Indian Economy)

Supply disruptions during the pandemic and the Russia-Ukraine war have led many nations to think about “self-sufficiency” in critical food items or at least reduce their “excessive dependence” on imports of essential food products.

INDIA’S IMPORT DEPENDENCE FOR EDIBLE OIL

- India imports 55 to 60 per cent of its edible oil requirements.
- India’s edible oil import bill in 2021-22 (FY22) crossed \$19 billion.
- Palm oil comprises more than 50 per cent of India’s edible oil imports, followed by soybean and sunflower.
- The “excessive dependence” on imports has raised the pitch for “atmanirbharta” in edible oil.
- The Prime Minister launched the National Edible Oil Mission-Oil Palm (NEOM-OP) in 2021.

WAY FORWARD

- Develop oil palm: Given the way international prices of edible oils have surged in the last year or so (by more than 70 per cent), it may be time for India to ramp up its efforts in developing oil palm.
- Declare oil palm as a plantation crop and allow the corporate players to own/lease land on a long-term basis to develop their own plantations and processing units.

WHY OIL PALM?

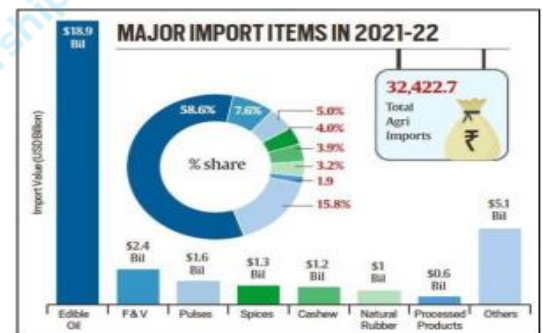
- Achieving atmanirbharta in edible oils through traditional oilseeds such as mustard, groundnuts and soya would require an additional area of about 39 million hectares under oilseeds.
- Danger to food security: Such a large tract of land will not be available without cutting down the area under key staples (cereals) – this could endanger the country’s food security even more.

CHALLENGES:

- Long gestation period: It takes four to six years to come to maturity; during this period, smallholders need to be fully supported.
- Further, the pricing formula of fresh fruit bunches (FFB) for farmers has to be dovetailed with a likely long-run average landed price of crude palm oil with due flexibility in the import duty structure.

WAY FORWARD:

- One needs to identify trigger points when import duties need to be raised as global prices come down, and when to reduce these duties in case of rising global prices.
- Overall, unless India thinks holistically and adopts a long-term vision, the chances of reducing India’s imports of edible oils from 14MMT in FY22 to 7MMT by FY27 look bleak.



36. Speaker’s power in rebellion

(GS II: Parliament)

The Supreme Court has extended the time for rebel MLAs in the Maharashtra State Legislative Assembly, to file a written response to the Deputy Speaker’s disqualification notice.

This decision is important because the Supreme Court in previous instances has upheld the Speaker’s powers under the Tenth Schedule. It has allowed judicial review only once the Speaker has made a decision and has ruled out interference with the process.

WHAT DOES THE TENTH SCHEDULE SAY?

- The Tenth Schedule gives the Speaker of the House the power to disqualify legislators who 'defect' from the party.

SUPREME COURT ON SPEAKERS' POWERS TO DISQUALIFY LEGISLATORS:

- **Kihoto Hollohan versus Zachillhu in 1992:** In this, the Supreme Court upheld the power vested in the Speaker and said that only the final order of the Speaker will be subject to judicial review. Basically, courts have refrained from interfering with the process itself.
- **Nabam Rebia v Bemang Felix case in 2016:** The Supreme Court held that it is "constitutionally impermissible" for a speaker to proceed with disqualification proceedings if a no-confidence motion against him is pending.
- This is to ensure that the Speaker who disqualifies legislators must enjoy the confidence of the Assembly.
- Hence, this ruling gave a window to defecting legislators to stall or circumvent the Tenth Schedule by seeking removal of the Speaker when disqualification proceedings are anticipated — effectively tying the hands of the Speaker.

HOW CAN THE SPEAKER BE REMOVED?

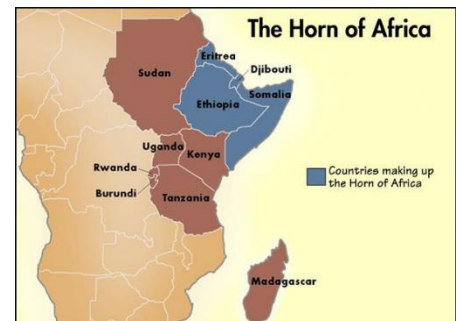
- Under Article 179 of the Constitution, a Speaker can be removed by a resolution of the Assembly passed by a majority of "all the then members of the Assembly". The process begins with notice of at least 14 days.
- In the 2016 Nabam Rebia ruling, the Supreme Court interpreted Article 179, specifically the term "all the then members of the Assembly", to mean the composition of the house at the date/time of giving the notice for the removal of the Speaker.
- This interpretation would mean that the composition of the Assembly cannot be changed from the date of issuing of a notice of the removal of the Speaker, and therefore the Speaker cannot make any decisions under the Tenth Schedule to change the composition of the House until the question of his removal is settled.
- The Supreme Court's reasoning in barring the Speaker from acting under the Tenth Schedule when a notice for his own removal is pending, is to ensure that the Speaker who disqualifies legislators must enjoy the confidence of the Assembly.

37. China's Interventions in the Horn of Africa

(GS II: International relations)

China has been investing across the African continent throughout the last decade. While the emphasis has been on investments and raw materials, it took a new turn recently, with the first "China-Horn of Africa Peace, Governance and Development Conference."

- Horn of Africa is the easternmost extension of African land and includes the region that is home to the countries of Djibouti, Eritrea, Ethiopia, and Somalia, whose cultures have been linked throughout their long history.
- The Horn of Africa has been at the centre of global attention for several decades because of protracted armed conflict, severe food crises and large-scale displacement.



CHINA CLAIMS THAT ITS THREE OBJECTIVES IN AFRICA:

- Controlling the pandemic,
- Implementing a Forum on China-Africa Cooperation (FOCAC) outcomes, The FOCAC promotes China's role in the infrastructural and societal development of the Horn.
- Upholding common interests while fighting hegemonic politics.

Projects between China and Africa:

2035 Vision: It aims to transform health sector, alleviate poverty, promote trade and investment, expand digital innovation

China donated vaccines to Kenya, Ethiopia, Uganda and Somalia.

Four Resolutions: The Dakar Action Plan; The China Africa Cooperation Vision 2035; The Sino-African Declaration on Climate Change; The Declaration of the Eighth Ministerial Conference of FOAC.

Green development, capacity building, improving people-to-people contact and facilitating peace and security in the continent

SHIFT IN CHINA'S PRINCIPLE OF NON-INTERVENTION:

- China's move towards peace in Africa indicates a shift in its principle of non-intervention.
- It is China's message that its presence in the continent has a larger objective and is not likely to be limited to the Horn of Africa.
- This includes an aim to project itself as a global leader and boost its international status.
- Further, the recent developments imply that China is focussing on a multifaceted growth in the continent for the long run.
- For Africa, China's presence is an alternative to the European powers, many of whom are facing criticism from African governments.
 - Further, African governments, which do not conform to Western standards of democracy, interact better with powers like China and Russia.

38. Making India a digital power

(Mains Paper 2: E-Governance)

There are several reforms and governance initiatives that have successfully steered India to its current strength.

CONTRIBUTION OF DIGITAL INDIA PROGRAM

- Today, India has the world's fastest-growing and most vibrant startup ecosystem with close to 70,000 registered startups and around 100 unicorns, with a unicorn coming up every week.
- GST regime: Thanks to the most significant reform in indirect taxation through the GST and tax compliance, India has registered its highest ever collections.
- Revenue increased from Rs 22 lakh crore in FY 21 to Rs 27 lakh crore in FY 22 — a whopping 22 per cent growth.

USE OF TECHNOLOGY FOR GOVERNANCE AMID PANDEMIC

- Digital India played a significant role in India's response to the pandemic.
- It ensured that the government could reach people in remote parts of the country.
- Health, education and other essential services migrated swiftly to the online mode.

CONCLUSION

The rapid digitalisation of the world along with a new focus on trust in the global supply chains for digital products and services presents tremendous opportunities for India and its youth. It is now up to all of us to engage in a collective "sabka prayas" to realise New India's economic potential.

39. Indian Media's Role During Pandemic

(GS2: government policies and intervention)

At the 17th Asia Media Summit, via video conferencing, the I&B Minister said that Indian media ensured that COVID awareness messages, important government guidelines and free consultations with doctors reached everyone in the country.

IMPORTANCE OF MEDIA:	CHALLENGES:
<p>Awareness: During COVID, the Indian media played a very important role in educating the people about the benefit of being vaccinated against coronavirus. One of the foremost challenges was vaccine hesitancy. That was broken by the media through right messages and education.</p> <p>Imparting Education: The young generation is becoming more aware of the sacrifices that our freedom fighters made for Independence.</p> <p>Tool of empowerment: knowledge empowers people to take best decisions.</p> <p>Accessibility and Internet growth: The growth of the Internet through affordable mobile devices has re-ignited the industry. 5G technology would further enhance user experience, with increase in the speed of delivery and improvement in the quality of media content.</p> <p>Soft Power: Indian cinema ruled the hearts of millions across the world and had created an identity for India. This was evident in the way India's films got tremendous applause from film lovers in the festival.</p>	<p>Authenticity of content would always remain at the core, whatever be the technological progress. And with rising fake news it is becoming tougher to discriminate fake news from real ones.</p> <p>There are cases seen which lack accountability to the public and their ethical and professional standards are questionable.</p> <p>Media independence is under the radar of questions as it is influenced by the ruling Governments, most of the time.</p> <p>The financial viability of media houses makes them more prone to seeking favours from Governments.</p> <p>Section 124a of IPC under which sedition is punishable by life imprisonment endangers the freedom of journalists. This leads to fear among journalists to work freely.</p>

WAY FORWARD:

- Media independence can be guaranteed if media organisations are financially viable, free from intervention of media owners and the state, and operate in a competitive environment.
- Efforts to help the media should be directed toward: the protection of press rights, enhancing media accountability, building media capacity and democratising media access.

40. Changing balance of power between India and Pakistan

(GS 2: international relations)

Some major changes in Indian diplomacy towards Pakistan have been observed in the last few years

BILATERAL RELATIONS BETWEEN INDIA AND PAKISTAN:

- India has made a number of attempts to build normal neighbourly relations with Pakistan. The External Affairs Minister's (EAM) also took the initiative to propose a Comprehensive Bilateral Dialogue in December 2015.
- India had accorded MFN status to Pakistan in 1996. A Pakistan cabinet decision of 2011 to reciprocate remains unimplemented
- The visit to religious shrines between India and Pakistan is governed by the Bilateral Protocol on Visits to Religious Shrines signed between India and Pakistan in 1974. EG: Kartarpur Corridor

ISSUES BETWEEN BOTH THE COUNTRIES

- India's relations with Pakistan are the most complex of its ties with its neighbours.
- Terrorism emanating from territories under Pakistan's control remains a core concern in bilateral relations.
EG: Pulwama cross-border terror attack: In a heinous and despicable act of cross border terror attack on the convey of Indian security forces in Pulwama, Jammu & Kashmir in 2019.
- The relations between the two countries have remained strained for years now and took a turn for the worse in August 2019 when India revoked the special status of Jammu and Kashmir.
- In 2019, Pakistan announced unilateral measures, including downgrading of diplomatic relations, suspension of bilateral trade and review of bilateral agreements with India.
- Pakistan's ambition and Demand: It aims to change the status quo in Jammu and Kashmir with a three-pronged strategy — violent destabilisation of Kashmir while raising human rights concerns in global forums, reopen the Kashmir question that India believed was settled after the 1971 war, and leverage global nuclear concerns to force Indian concessions on Kashmir.

INDIA'S RESPONSE:

- India's transformed relations with the US and getting the West to discard its temptation to mediate on Kashmir enormously improved India's diplomatic position.
- Following the cross border terrorist attack on an army camp in Uri in Jammu and Kashmir and continued incidents of terrorist infiltrations, the Indian Army conducted surgical strikes at various terrorist launch pads across the Line of Control.
- India and Pakistan have been engaged in "back channel" talks in order to break the stalemate in the relationship between the two nuclear-armed neighbours.
- By changing the constitutional status of Kashmir in 2019, India has reduced the scope of India's future negotiations with Pakistan on Kashmir.

WAY FORWARD:

- In keeping with its "Neighbourhood First Policy", India desires normal neighbourly relations with Pakistan.
- India has made clear that it will not compromise on issues relating to national security and will take firm and decisive steps to deal with all attempts to undermine India's security and territorial integrity.

41. UN Report on the Taliban Regime

(GS 2: international organisations)

Recently a report on Taliban Regime was published by the Analytical Support and Sanctions Monitoring Team of the United Nations Security Council (UNSC).

MAJOR FINDINGS OF THE REPORT:

- It states that foreign terrorist organisations continue to enjoy safe haven under the new Taliban regime.
- The terrorist groups are currently in consolidation mode and not likely to launch major attacks outside Afghanistan before 2023.
- This may be due to financial constraints, and possibly under political pressure not to embarrass the Taliban internationally at this juncture.
- It says about internal division in the Taliban, between the moderate and hardline blocs.
- Wherein moderates want working relationships with foreign partners and integration with the international system and hrdliners are declining such possibilities.
- Independent of both these blocs is the Haqqani Network which, which is inclined towards a pragmatic rather than ideological approach to securing Taliban interests.

IMPLICATIONS ON REGIONAL GEO-POLITICS

- Taliban's takeover of Afghanistan has emboldened and inspired radical Islamist outfits in the region and the world including Al Qaeda and the Islamic State that had been degraded and, in many places, on the back foot.
- Reoccurrence of Islamic terrorism was an expected move and its ripple effects will spread far from Africa to southeast Asia.
- Issues in India: The disputed region of Kashmir may see further unrest and terrorist activities. There is further possibility of infiltration all across the Line of Control in both Kashmir and Jammu regions.
- India-China-Pakistan tension: It will almost certainly lead to a dangerous heightening of India-Pakistan tension, already on a razor's edge at a time when India faces a two-front threat from China and Pakistan.
- Issues in Pakistan: Pakistan too will feel the blow back from the radicalisation from the Tehreek-e-Taliban Pakistan, leading to turmoil in the Pashtun and Baloch areas of Pakistan.

STEPS TAKEN BY INDIA IN COUNTERING TERRORISM:

- Bilateral treaties on Mutual Legal Assistance (MLATs) in Criminal matters to facilitate the investigation, collection of evidence, transfer of witnesses, location and action against proceeds of crime, etc. have been signed with other countries.
- In 2018, India highlighted its demand for a Comprehensive Convention on International Terrorism (CCIT) at the 73rd session of the UN General Assembly (UNGA).
- Comprehensive Integrated Border Management System: It vastly improves the capability of Border Security Force (BSF) in detecting and controlling the cross border crimes like illegal infiltration, smuggling of contraband goods, human trafficking and cross border terrorism, etc.
- Unlawful Activities (Prevention) Act, 1967: It enables more effective prevention of certain unlawful activities of individuals and associations and for dealing with terrorist activities, and other related matters.

42. Gig Workers' Rights

(GS 3: Indian economy)

- In a gig economy, temporary, flexible jobs are commonplace and companies tend toward hiring independent contractors and freelancers instead of full-time employees.
- Sectors such as media, real estate, legal, hospitality, technology-help, management, medicine, allied and education are already operating in gig culture.

WHY IS GIG ECONOMY PREFERRED BY WORKERS?

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

CHALLENGES FACED IN GIG ECONOMY

- No perks and benefits: There are no labour welfare emoluments like pension, gratuity, etc. for the workers.
- Job insecurity: Gig workers may face unfair termination. They may also attain minimum wages and less paid leave.
- No legal protection: Workers do not have the bargaining power to negotiate a fair deal with their employers.
- Unionization of workers will be difficult.
- Confidentiality of documents etc. of the workplace is not guaranteed

- Urban nature: The gig economy is not accessible for people in many rural areas where internet connectivity and electricity is unavailable.

WAY FORWARD:

The gig economy has been on the rise and is expected to beat the pre-pandemic estimates due the expected influx of gig workers transitioning from full-time employment.

While the government has taken the initial steps to ensure social security of gig workers, the 'Code on Social Security' needs to be fine-tuned.

43. Electric Vehicles (EVs) Policies of India

(GS 3: Indian economy and related issues)

The EV policies put in place by some States as part of FAME-II have been instrumental in driving this growth.

EVs operate on an electric motor, instead of an internal-combustion engine that generates power by burning a mix of fuel and gases.

INDIAN POLICIES ON EVs:

- In 2013, India unveiled the National Electric Mobility Mission Plan (NEMMP) 2020: It aimed to make a major shift to EVs and to address the issues of national energy security, vehicular pollution and growth of domestic manufacturing capabilities.
 - It offered subsidies and created a supporting infrastructure for e-vehicles but the plan has not been implemented.
- In the Union Budget 2015-16, the 'Faster Adoption and Manufacturing of EVs' (FAME) scheme was announced, with an initial outlay of Rs. 75 crore.
 - It aimed to offer incentives for clean-fuel technology cars to boost their sales to up to 7 million vehicles by 2020.
- In 2017, the Transport Ministry highlighted its intent to move to 100 per cent electric cars by 2030.
- In February 2019, the Union Cabinet cleared an Rs. 10,000-crore programme under the FAME-II scheme for promotion of Electric Mobility in the country.
- Initially envisioned for three years, FAME-II got a two-year extension in June 2021 owing to a number of factors including the pandemic.
- In the 2022 budget, a battery swapping policy was announced as an easier way to charge EVs. The battery swapping model for supplying power has side-stepped the lack of charging infrastructure but the future is likely to see a mix of both models.
- The government also announced a Production Linked Incentive scheme for automakers, a part of which aims to boost electric vehicles manufacturing.

CHALLENGES:

- India's road to a fully-electric ecosystem still has a few hurdles - High cost, inadequate infrastructure, lack of high performing EVs .
- Local manufacturing enterprises lack the necessary resources or the motivation to invest in design developments.
- The absence of a robust manufacturing ecosystem for the materials associated with the EV revolution, coupled with the concentration of the supply chain in certain regions.
- Li-ion batteries are complex devices requiring a level of sophistication that can take years to perfect.

WAY FORWARD:

The current policies in place at the State level have spurred an e-three-wheeler dominance but it has come at some costs therefore subsequent EV policies must pay special attention to adequate passenger safety.

Future policies must therefore incorporate appropriate design and passenger safety standards.

44. India's Changing Goal Posts Over Coal

(GS 3: Indian economy)

Recently, Finance Minister said India's transition away from coal as a fuel for power would be hampered by the Russia-Ukraine war.

COAL:

- Coal is a combustible black or brownish-black sedimentary rock rich in carbon and hydrocarbons that takes millions of years to develop, making it a non-renewable energy source.
- Coal is also known as black gold
- It contains energy stored by plants that flourished hundreds of millions of years ago in swampy forests.

WHY IS THE 'MOVE AWAY FROM COAL' SO IMPORTANT?

- The threat of global warming looms over the planet, promising to bring about unprecedented natural calamities.
- An effective way to keep the danger at bay is to cut the use of fossil fuels — coal, natural gas and oil. About 80% of the world's energy requirements are met by these three fuels.
- They have likely brought on the climate crisis we now face, as they trigger the emission of carbon dioxide.
- Worst culprit: Coal
 - It emits nearly twice as much carbon dioxide as natural gas and about 60% more than oil, on a kilogram-to-kilogram comparison.
 - Combusting coal also leaves behind partially-burnt carbon particles that feed pollution and trigger respiratory disorders.
 - The consequence of these chemical reactions gains great significance because, the power sector in India accounts for 49% of total carbon dioxide emissions, compared with the global average of 41%.

INDIA'S DEPENDENCE ON COAL:

- As of February 2022, the installed capacity for coal-based power generation across the country was 2.04 lakh megawatt (MW). This accounts for about 51.5% of power from all sources.
- This compares with about 25,000 MW of capacity based on natural gas as fuel, or a mere 6.3% of all installed capacity.
- Renewable power accounted for 1.06 lakh MW or 27%.
- Coal-based power stations are retired periodically which happens all the time.
- But is not fast enough nor are new additions being halted. And with good reason – coal is still inexpensive compared with other sources of energy.

HOW HAS WAR MADE INDIA'S MOVE AWAY FROM COAL DIFFICULT?

- Natural gas has been dubbed as the transition fuel in India's plans to move away from coal.
- The international cost of natural gas has zoomed in the recent past due to war, from a level that was considered already too high to be financially viable.
- On May 17, 2022, the price per MMBTU of gas was ₹1,425, compared with ₹500 in April, 2021.
- Even back in November last, well before the war made things difficult, the government put in place a committee to ensure that natural gas prices remained stable.
- Of the 25,000 MW of gas-based power plants, about 14,000 MW remains stranded, or idle, because they are financially unviable.

45. G7 meet over Antimicrobial Resistance

AMR

(GS 2: Health)

Recently, Group of Seven (G7) countries met at Berlin to join hands against antimicrobial resistance (AMR).

MAJOR HIGHLIGHTS OF THE MEETING

- Antimicrobial resistance as a bigger threat: Health ministers from the Group of Seven (G7) highly industrialised countries recently recognised antimicrobial resistance as a bigger threat to low- and middle-income countries (LMIC) even though fighting it was a shared responsibility.
- Death and effect on GDP: Nearly 700,000 people die of AMR every year. The toll can rise to as many as 10 million by 2050 and eat up 3.8 per cent of annual global gross domestic product (GDP).
- The G7 committed to establish new international integrated surveillance systems and improve existing ones to monitor AMR and antibiotics use among humans, animals and plants and the effect on the environment.
- This will be in cooperation with the World Health Organisation, Food and Agriculture Organisation, World Organisation for Animal Health and the United Nations Environment Programme.

CHALLENGES POSED BY AMR

- Antibiotic resistance is emerging as the threat to successful treatment of infectious diseases, organ transplantation, cancer chemotherapy and major surgeries.
- The issue of AMR causes out of pocket expenditure on health care, especially on medicines. The use of high order drugs or second-line expensive antibiotics pushing treatment cost high.
- Neonates and elderly both are prone to infections and are vulnerable.

GLOBAL CONCERNS:

- It is a global health and development threat.
- WHO has declared that AMR is one of the top 10 global public health threats facing humanity. AMR is already responsible for up to 7,00,000 deaths a year.

WHAT'S AMR?

Resistance of a micro-organism to an antibiotic that was originally effective in treating infections caused by it

Why India needs to curb antibiotic overuse

- India's bacterial disease burden is highest in the world
- Large population suffers from diseases like diabetes, heart ailments and cancer, making them prone to infections
- 40% children are malnourished and at risk of infections
- More and more drug-resistant bacteria are being identified



Global effort:	India's effort:
<p>Global Action Plan on Antimicrobial Resistance (GAP): Globally, countries committed to the framework set out in the Global Action Plan1 (GAP) 2015 on AMR during the 2015 World Health Assembly and committed to the development and implementation of multisectoral national action plans.</p> <p>Tripartite Joint Secretariat on Antimicrobial Resistance: Tripartite joint secretariat (FAO, OIE and WHO) has been established and is hosted by WHO to drive multi-stakeholder engagement in AMR.</p> <p>Global Antimicrobial Resistance and Use Surveillance System (GLASS): WHO launched it in 2015 to continue filling knowledge gaps and to inform strategies at all levels.</p>	<p>India's Red Line campaign: Which demands that prescription-only antibiotics be marked with a red line, to discourage the over-the-counter sale of antibiotics— is a step forward.</p> <p>National Health Policy, 2017, terms antimicrobial resistance as one of the key healthcare issues and prioritises the development of guidelines regarding antibiotic use and check on restricting the growth of antibiotics.</p> <p>The National Action Plan on Antimicrobial Resistance (NAP-AMR) 2017 has assigned coordinated tasks to multiple government agencies involving health, education, environment, and livestock to change</p>

GLASS has been conceived to progressively incorporate data from surveillance of AMR in humans, surveillance of the use of antimicrobial medicines, AMR in the food chain and the environment.

prescription practices and consumer behaviour and to scale up infection control and antimicrobial surveillance.

FSSAI has set certain **guidelines limiting the antibiotics** in food products such as fish and honey.

BEST PRACTICES:

❖ **Rythu Bandhu:**

- is a support scheme for farmers in Telangana, which provides cheque payments to farmers based on their landholdings.
- Under this scheme Telangana government gives every beneficiary farmer Rs 4,000 per acre as “investment support” before every crop season.
- The objective is to help the farmer meet a major part of his expenses on seed, fertiliser, pesticide, and field preparation.

❖ **Telangana Dalit Bandhu scheme:**

- Dalit Bandhu enables entrepreneurship among Dalits through a direct benefit transfer of Rs 10 lakh per family.
- This is going to be the biggest cash transfer scheme in the country.
- To promote Dalit entrepreneurship, the government has decided to start a system of reservation for Dalits in sectors where the government issues licences. This includes wine shops, medical shops, fertiliser shops, rice mills, etc.

❖ **BALA- Building as Learning Aid- UP**

- It is an innovative concept for teaching through child-friendly, learning and fun-based physical environment by building new infrastructure or refurbishing the existing School and Anganwadi buildings.
- BALA includes the development of the entire physical environment of the School – indoor, outdoor and semi-open spaces.



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46. PRELIMS BOOSTER

1.6.22

1) **Indus Waters Treaty:** It is a water-distribution treaty between India and Pakistan, brokered by the World Bank signed in Karachi in 1960.

- According to this agreement, control over the water flowing in three “eastern” rivers of India — **the Beas, the Ravi and the Sutlej was given to India**
- The control over the water flowing in three “western” rivers of India — **the Indus, the Chenab and the Jhelum was given to Pakistan.**
- The treaty allowed India to use western rivers water for limited irrigation use and unrestricted use for power generation, domestic industrial and non-consumptive uses

2) **Unicorn Startup:** Unicorns are privately held, venture-capital-backed startups that have reached a value of **\$1 billion**.

- The valuation of unicorns is not expressly linked to their current financial performance.
- This is largely based on their growth potential as perceived by investors and venture capitalists who have taken part in various funding rounds.
- Maximum number is unicorns are present in USA followed by China and India.

3) **Param Ananta:** It is a supercomputer capable of offering peak performance of 838 teraflops.

- It is a joint initiative of **Ministry of Electronics and Information Technology (MeitY) and Department of Science and Technology (DST).**
- This facility is established under Phase 2 of the National Supercomputing Mission (NSM).
- Param Ananta system is based on Direct Contact Liquid Cooling technology to obtain a high power usage effectiveness and thereby reducing the operational cost.

4) **Asteroids:** They are a part of inner solar system are neither categorised as a planet or a comet.

- They are majorly present in the asteroid belt between Mars and Jupiter.
- They are classified into 3 groups based on their chemical component:
- **C-type:** They are most common and comprise 75% of the total asteroid family. It consists of mainly carbonaceous asteroids and is extremely dark.
- **S-type:** They are made of iron and magnesium silicates and are moderately bright. They are seen in the inner asteroid belt.
- **M-type:** They are formed of nickel and iron in its purest form and are categorised as M-type. They are relatively brighter.

5) **Community Forest:** The community forest resource area is the common forest land that has been traditionally protected and conserved for sustainable use by a particular community.

- Each CFR area has a customary boundary with identifiable landmarks recognised by the community and its neighbouring villages.
- The CFR rights are acknowledged under the Section 3(1) (i) of the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act.
- This is commonly referred to as the Forest Rights Act or the FRA.

2.6.22

1) **Turing Test:** It is a method of inquiry in artificial intelligence (AI) for determining whether or not a computer is capable of thinking like a human being.

- This test is named after Alan Turing (1912-1954), an English computer scientist.
- He described it calling the ‘imitation game’. If an evaluator is unable to distinguish between machine and human behaviour then it is believed that the machine (AI) has passed the Turing Test.

2) **Liquid nano urea:** It is essentially urea in the form of a nanoparticle.

- Urea is a chemical nitrogen fertiliser, white in colour, which artificially provides nitrogen, a major nutrient required by plants.
- It is developed to replace conventional urea and it can curtail the requirement of the same by at least 50%.

3) **Central Identities Data Repository (CIDR)**: This centralised database contains all Aadhaar numbers and holder's corresponding demographic and biometric information.

- UIDAI responds to authentication queries with a 'Yes' or 'No'.
- In some cases, basic KYC details (as name, address, photograph etc.) accompany the verification answer 'Yes'.
- The regulator does not receive or collect the holder's bank, investment or insurance details.

4) **Haldibari-Chilahati rail link**: The Haldibari-Chilahati rail link between India and the then East Pakistan i.e. Bangladesh, was operational till 1965 and stopped due to the war.

- In 2021, the two sides started regular movement of freight trains between the newly-restored link between Haldibari in India and Chilahati in Bangladesh.
- This was part of the broad gauge main route from Kolkata to Siliguri at the time of Partition

5) **Rajamala Eravikulam National Park**: Rajamala hills houses the Eravikulam National Park.

- The Eravikulam National Park is situated in the Kannan Devan Hills of the southern Western Ghats with an area of 97 sq. km.
- The Eravikulam National Park has the highest density and largest surviving population of Nilgiri tahr, the endangered mountain goat.
- Every twelve years, this place will be carpeted with blue due to the mass flowering of Neelakurinji flowers.

3.6.22

1) **Foreigner's Tribunal**: These are quasi-judicial bodies established as per the Foreigners' Tribunal Order, 1964 and the Foreigners' Act, 1946.

- The Ministry of Home Affairs (MHA) has amended the Foreigners (Tribunals) Order, 1964, and has empowered district magistrates in all States and Union Territories to set up tribunals (quasi-judicial bodies) to decide whether a person staying illegally in India is a foreigner or not. Earlier, the powers to constitute tribunals were vested only with the Centre.
- The amended order (Foreigners (Tribunal) Order, 2019) also empowers individuals to approach the Tribunals. Earlier, only the State administration could move the Tribunal against a suspect.

2) **Tamagotchi Generation**: A new book has predicted that by the third quarter of this century, parents will have the choice of having digital offspring that will only exist in virtual world.

- This will be the 'Tamagotchi Generation'. The virtual children of the future can be built to look like their parents, and will be able to provide a range of emotional responses.
- The name comes from the digital pet created by the Japanese toy manufacturer Bandai, which was a global rage in the 1990s and early years of this century.

3) **e-Shram portal**: Ministry of Labour and Employment launched the e-Shram portal.

- Aim: To register 38 crore unorganised workers such as construction labourers, migrant workforce, street vendors, and domestic workers, among others.
- The workers will be issued an e-Shram card containing a 12 digit unique number.
- If a worker is registered on the eSHRAM portal and meets with an accident, he will be eligible for Rs 2.0 Lakh on death or permanent disability and Rs 1.0 lakh on partial disability.

4) **Use and File system**: Insurance Regulatory and Development Authority of India (IRDAI) has decided to extend the 'Use and File' procedure to all health insurance products.

- Under 'Use and File', insurers are permitted to market products without the regulator's prior approval, thus avoiding a long wait. This means insurance firms can quickly introduce new schemes with innovative features, enabling people to participate and cover their health expenses.
- Under the existing 'File and Use' system, an insurer wishing to introduce a new product has to first file an application with the IRDAI and use the product for sale in the market only after getting all regulatory approvals.

5) **Gig economy:** In a gig economy, temporary, flexible jobs are commonplace and companies tend toward hiring independent contractors and freelancers instead of full-time employees.

- A gig economy undermines the traditional economy of full-time workers who rarely change positions and instead focus on a lifetime career. e.g Employee models of Uber, Ola, Swiggy etc.

4.5.22

1) **Security categories:** In India, the category covers are X, Y, Y-plus, Z, Z-plus, and SPG (Special Protection Group).

- **X Category:** The protectee gets one gunman.
- **Y Plus category:** It receives the cover of two gunmen (plus four on rotation), one for mobile security, and one (plus four on rotation) for residence security,
- **Z Category:** It has six gunmen for mobile security and two (plus 8) for residence security. They get 10 security personnel for mobile security, and two (plus 8) for residence security.
- **Z Plus Category:** It is provided by National Security Guard commandos whereas the other category of security is provided by the Delhi police or the ITBP or CRPF personnel.

2) **Eco-Sensitive Zones (ESZs)** : Aka Ecologically Fragile Areas (EFAs) are areas notified by the MoEFCC around Protected Areas, National Parks and Wildlife Sanctuaries.

- The purpose of declaring ESZs is to create some kind of "shock absorbers" to the protected areas by regulating and managing the activities around such areas.
- The Environment (Protection) Act, 1986 does not mention the word "Eco-Sensitive Zones".
- An ESZ could go up to 10 kilometres around a protected area as provided in the Wildlife Conservation Strategy, 2002.
- Moreover, in the case where sensitive corridors, connectivity and ecologically important patches, crucial for landscape linkage, are beyond 10 km width, these should be included in the ESZs.

3) **Direct-to-mobile broadcasting:** The technology is based on the convergence of broadband and broadcast, using which mobile phones can receive terrestrial digital TV.

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

4) **Section 25 company:** As per the Companies Act, 1956, a Section 25 company — similar to what is defined under Section 8 under Companies Act, 2013 — is a not-for-profit charitable company formed with the sole object of "promoting commerce, art, science, religion, charity, or any other useful object, and intends to apply its profits, if any, or other income in promoting its objects, and to prohibit the payment of any dividend to its members"

5) **United Nations Environment Programme:** It is the leading global environmental authority established in 1972.

- It sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system.
- Headquarters: Nairobi, Kenya.
- Major Reports: Emission Gap Report, Global Environment Outlook, Frontiers, Invest into Healthy Planet.
- Major Campaigns: Beat Pollution, UN75, World Environment Day, Wild for Life, etc.

6.6.22

1) **Gait analysis:** It is defined as a manner of walking or moving on foot. Gait analysis is a technique in podiatry medical care and the treatment of the foot, which is used to evaluate and diagnose conditions that affect walking and posture.

- For a crime analysis, experts compare the gait of a person seen in CCTV footage from the crime spot with a sample of the suspect's walk.
- The report of the expert can be used during a trial for corroboration of the identity of a suspect.

2) **Tiangong space station:** China's Space Station, it is a multi-module Tiangong station is set to be operational for at least 10 years.

- Tianhe is one of three main components of what would be China's first self-developed space station, rivalling the only other station in service – the ISS.
- It forms the main living quarters for three crew members in the Chinese space station.
- The Tianhe launch is the first of 11 missions needed to complete the space station, which will orbit Earth at an altitude of 340 to 450 km.

3) **Fishing cat:** The Chilika Lake has 176 fishing cats, according to a census conducted by Chilika Development Authority (CDA) in collaboration with The Fishing Cat Project (TFCP).

- This is the world's first population estimation of the fishing cat, which has been conducted outside the protected area network.
- It is nocturnal (active at night) , excellent swimmers and breeds all year round.
- Habitat: In India, fishing cats are mainly found in the mangrove forests of the Sundarbans, on the foothills of the Himalayas along the Ganga and Brahmaputra River valleys and in the Western Ghats.
- IUCN Red List: **Vulnerable**, CITES: Appendix II, Indian Wildlife Protection Act, 1972: **Schedule I**

4) **e-VTOL:** Recently, the Union Minister for Civil Aviation announced that India will see the deployment of electric vertical take-off and landing (eVTOL) aircraft to ensure urban air mobility in the days to come.

- An electric vertical take-off and landing (eVTOL) aircraft is a variety of VTOL (vertical take-off and landing) aircraft that uses electric power to hover, take off, and land vertically instead of conventional fossil fuels.
- This technology came due to major advances in electric propulsion (motors, batteries, fuel cells, electronic controllers) and the growing need for new vehicles for urban air mobility (air taxi).

5) **Chilika lake:** It is the largest brackish water lake and wintering ground of the birds in the Indian subcontinent.

- Chilika is **Asia's largest** and **world's second largest lagoon**.
- In 1981, Chilika Lake was designated the first Indian wetland of international importance under the Ramsar Convention.
- Major attraction at Chilika is Irrawaddy dolphins which are often spotted off Satapada Island.
- The large Nalabana Island (Forest of Reeds) covering about 16 sq km in the lagoon area was declared a bird sanctuary in 1987.

8.6.22:

1) **Environment Performance Index:** EPI is a biennial index prepared by **Yale University and Columbia University** in collaboration with the **World Economic Forum**.

- Using 40 performance indicators across 11 issue categories, EPI ranks 180 countries on climate change performance, environmental health, and ecosystem vitality.
- With a rank of 180, India has been ranked last from 168th rank in 2020.

2) **Nuclear Suppliers Group (NSG):** It is a group of nuclear supplier countries that seek to prevent nuclear proliferation by controlling the export of materials, equipment, and technology that can be used to manufacture nuclear weapons.

- NSG consists of 48 members which include the five nuclear weapon states US, UK, France, China, and Russia.
- It is not a formal organization, and its guidelines are not binding.

- Decisions, including on membership, are made by consensus. India is not a member.

3) **Reintroduction of Cheetah:** 'Reintroduction' of a species means releasing it in an area where it is capable of surviving.

- Assessed sites-Mukundara Hills Tiger Reserve and Shergarh Wildlife Sanctuary in Rajasthan and Gandhi Sagar Wildlife Sanctuary, Kuno National Park, Madhav National Park and Nauradehi Wildlife Sanctuary in Madhya Pradesh.
- Kuno National Park is identified for the relocation.
- This is the first time in the world that a large carnivore will be relocated from one continent to another.

4) **Cheetah:** The cheetah, *Acinonyx jubatus*, is one of the oldest of the big cat species, with ancestors that can be traced back more than five million years to the Miocene era.

- The cheetah is also the world's fastest land mammal.
- It is listed as vulnerable in IUCN red listed species.
- The country's last spotted feline died in Chhattisgarh in 1947. Later, the cheetah — which is the fastest land animal — was declared extinct in India in 1952.
- The Asiatic cheetah is classified as a "critically endangered" species by the IUCN Red List, and is believed to survive only in Iran.

5) **National Asset Reconstruction Company Ltd. (NARCL):** NARCL is a special purpose asset reconstruction company for taking over the large value NPA accounts (above 500 crore) from banks.

- Its formation was announced in the Union Budget for 2021-22, is intended to resolve stressed loans amounting to about 2 lakh crore, of which fully provisioned assets of about 90,000 crore are expected to be transferred to it from lenders in the first phase.
- NARCL has shareholding from 15 Indian lenders and Canara Bank is the sponsor of this Asset Reconstruction Company (ARC).

10.6.22

1) **Red corner notice:** It is issued by Interpol to seek location and arrest of wanted persons with a view to extradition or similar lawful action.

- It is the closest instrument to an international arrest warrant.
- It meant to provide the information to the national agency / authority on whose request the Notice was issued

2) **Queerbaiting:** It is a marketing technique for fiction and entertainment in which creators hint at, but then do not actually depict, same-sex romance or other LGBT representation.

3) **Hypogonadism:** Male hypogonadism is a condition in which the body doesn't produce enough of the hormone that plays a key role in masculine growth and development during puberty (testosterone) or enough sperm or both.

- **Testosterone replacement therapy** is the standard treatment for hypogonadism, which can cause sexual dysfunction, weakening of bones and muscles, and reduced quality of life.
- Despite being widely used, the cardiovascular safety of testosterone treatment had so far remained unclear due to inconsistent findings.

4) **Fast Radio Bursts:** The detection of the new Fast Radio Burst (FRB) termed FRB 20190520B raises some important questions about the origin and source of these signals.

- The source of the FRB 20190520B is "co-located with a compact, persistent radio source and associated with a dwarf host galaxy of high specific-star-formation.." The signal is supposed to be close to another unknown object, which is emitting a weaker radio signal. This sort of combination has only been observed in another FRB.
- FRB are bright bursts of radio waves (radio waves can be produced by astronomical objects with changing magnetic fields) whose durations lie in the millisecond-scale, because of which it is difficult to detect them and determine their position in the sky.



- It was first discovered in 2007.

5) **International Atomic Energy Agency:** Set up as the world's "Atoms for Peace" organization in 1957 within the United Nations family.

- Reports to both the United Nations General Assembly and Security Council.
- Headquarters in Vienna, Austria.
- Works with its Member States and multiple partners worldwide to promote the safe, secure and peaceful use of nuclear technologies.
- Seeks to promote the peaceful use of nuclear energy, and to inhibit its use for any military purpose, including nuclear weapons.

11.6.22

1) **Chelonoidis phantasticus:** It means "fantastic giant tortoise". Commonly called the Fernandina Island Galápagos giant tortoise, the species was so far known only from a single individual, collected in 1906.

- It has been named Fernanda after the Fernandina Island where it was discovered.
- The IUCN listed it as critically endangered & possibly extinct.
- Its habitat is largely dry brush land at lower elevations, but much of that habitat has been destroyed by extensive lava flows.



2) **Fernandina Island:** Fernandina Island is an **active volcano** that stands alone on the western periphery of the Galápagos Archipelago. It is reputed to be the **largest pristine island on Earth**.

3) **Sant Tukaram Maharaj:** He was a 17th-century Bhakti saint and Marathi poet from Maharashtra.

- Tukaram is best known for his devotional poetry called **Abhanga** and community-oriented worship with spiritual songs known as kirtans.
- His work is central to the **Warkari sect** spread across Maharashtra. He is also credited with starting the Wari pilgrimage.
- His message about a casteless society and his denial of rituals had led to a social movement.

4) **Ancovax:** The Agriculture Ministry on Thursday unveiled **India's first Covid-19 vaccine for animals**.

- Developed by the Hisar-based National Research Centre on Equines, the vaccine, called Ancovax, can protect animals against the Delta and Omicron variants of SARS-CoV-2.
- It is an inactivated vaccine developed using an infectious part of the Delta variant.
- In addition, it uses Alhydrogel as an adjuvant to boost the immune response.

5) **Line of Credit (LOC):** India has provided \$55mn line of credit to Sri Lanka for import of fertilizers.

- The Line of Credit is not a grant but a 'soft loan' provided on concessional interest rates to developing countries, which has to be repaid by the borrowing government.
- The LOCs also helps to promote exports of Indian goods and services, as 75% of the value of the contract must be sourced from India.

13.6.22

1) **Ramsay Hunt syndrome:** Ramsay Hunt Syndrome is neurological disease in which a virus – Varicella Zoster – causes inflammation of the nerves involved in facial movements.

- When the nerves get inflamed, they lose their ability to function, leading to temporary facial palsy or paralysis. What it means is that facial muscles in the infected person cannot receive necessary signals to function properly.

- There are 12 cranial nerves in the body. Ramsay Hunt Syndrome is the viral infection impacting the 7th cranial nerve that is involved in facial movements.

2) **BrahMos**: BrahMos is a joint venture between the Defence Research and Development Organisation of India (DRDO) and the NPOM of Russia. BrahMos is named on the rivers Brahmaputra and Moskva.

- It is a two-stage (solid propellant engine in the first stage and liquid ramjet in second) missile.
- It is a multiplatform missile i.e it can be launched from land, air, and sea and multi capability missile with pinpoint accuracy that works in both day and night irrespective of the weather conditions.
- It operates on the "Fire and Forgets" principle i.e it does not require further guidance after launch.
- Brahmos is one of the fastest cruise missile currently operationally deployed with speed of Mach 2.8, which is nearly 3 times more than the speed of sound.

3) **State Food Safety Index**: SFSI was started from 2018-19 with the aim of creating a competitive and positive change in the food safety ecosystem in the country.

- The index is developed by FSSAI (Food Safety and Standards Authority of India) to measure the performance of states on five significant parameters of Food Safety.
- The parameters include Human Resources and Institutional Data, Compliance, Food Testing – Infrastructure and Surveillance, Training & Capacity Building and Consumer Empowerment.
- Tamil Nadu topped the State Food Safety Index followed by Gujarat and Maharashtra.

4) **Angkor Wat**: Angkor Wat is a temple complex in Cambodia and one of the largest religious monuments in the world.

- It was originally constructed as a Hindu temple dedicated to the god Vishnu for the Khmer Empire, it was gradually transformed into a Buddhist temple towards the end of the 12th century.
- It was built by the Khmer King Suryavarman II in the early 12th century in Yaśodharapura (present-day Angkor), the capital of the Khmer Empire, as his state temple and eventual mausoleum.
- It is a UNESCO World Heritage Site.

5) **Aegean Sea**: Recently, Turkish President warned Greece to demilitarize islands in the Aegean Sea.

- Aegean Sea an arm of the Mediterranean Sea, located between the Greek peninsula on the west and Asia Minor on the east.
- The Aegean is connected through the straits of the Dardanelles, the Sea of Marmara, and the Bosphorus to the Black Sea, while the island of Crete can be taken as marking its boundary on the south.



14.6.22

1) **Broken rice**: China is now the top buyer of Indian broken rice, which was earlier exported mostly to African countries.

- Trade experts say the reason for this increase in export of broken rice to China is the higher demand of rice for making noodles and wine in that country.

2) **LaMDA (Language Model for Dialogue Applications)**:

- It is a machine-learning language model created by Google as a chatbot that is supposed to mimic humans in conversation.
- It is built on Transformer, a neural network architecture i.e. a series of algorithms that endeavors to recognize underlying relationships in a set of data through a process that mimics the way the human brain operates
- LaMDA is designed to be able to engage in free-flowing conversations about a virtually endless number of topics.
- There are claims of it becoming sentient and begun reasoning like a human being.

3) **Web 5.0**: Web 5.0 is aimed at "building an extra decentralized web that puts you in control of your data and identity".

WHAT IS BROKEN RICE?

If rice kernels are not sound, it is called broken rice. Generally, broken rice is classified into two sub-categories: big and small. As per Food Corporation of India specifications, "Pieces equal to or smaller than 3/4th, but bigger than one half of the average length of the unbroken kernels" are classified as big broken rice. The small broken rice is defined as "pieces that do not exceed 1/4 average length of unbroken kernel..."

- It envisions an Internet without threat of censorship – from governments or big tech, and without fear of significant outages.

4) **Web 1.0, 2.0, 3.0:**

- Web 1.0 was the first generation of the global digital communications network. It is often referred to as the “read-only” Internet made of static web-pages that only allowed for passive engagement.
- The next stage in the evolution of the web was the “read and write” Internet. Users were now able to communicate with servers and other users leading to the creation of the social web. This is the world wide web that we use today.
- Web 3.0 is an evolving term that is used to refer to the next generation of Internet – a “read-write-execute” web – with decentralization as its bedrock. Web 3.0 will be driven by Artificial Intelligence and machine learning where machines will be able to interpret information like humans.

5) **Difference between Type 1 and Type 2 diabetes:**

DIABETES MELLITUS TYPE 1 VS TYPE 2	
TYPE 1 DIABETES	TYPE 2 DIABETES
<ul style="list-style-type: none"> • Occurs when the pancreas is unable to produce enough insulin • Tends to develop at a young age • Cannot be prevented • Require insulin therapy 	<ul style="list-style-type: none"> • Occurs due to insulin resistance (i.e. when the body does not respond well to insulin) • Tends to develop at an older age • Can be prevented with lifestyle changes • Can be managed with lifestyle modifications alone if diagnosed early
<ul style="list-style-type: none"> • Both share symptoms of frequent urination, increased thirst, extreme hunger, unintentional weight loss, fatigue, blurry vision, sores or wounds that heal slowly, and numbness and tingling sensation in hands and feet. • Both can benefit from lifestyle modifications such as a healthy diet, physical activity, blood sugar level monitoring, and management of stress and other existing health conditions. 	

15.6.22

1) **Agnipath scheme:** Under the new scheme, around 45,000 to 50,000 soldiers will be recruited annually, and most will leave the service in just four years.

- Of the total annual recruits, only 25 per cent will be allowed to continue for another 15 years under permanent commission.
- The move will make the permanent force levels much leaner for the over 13-lakh strong armed forces in the country.
- The new system is only for personnel below officer ranks (those who do not join the forces as commissioned officers)

2) **The Gloucester shipwreck:** It was over 300 years ago that a royal ship carrying the future king of England, Ireland and Scotland sank killing hundreds onboard. It also nearly killed the Duke of York, who later reigned as King James II.

- The discovery of the royal shipwreck was revealed recently on June 10, and has since been hailed as one of the most significant discoveries of maritime history.
- It has been suggested by historians that that the Duke delayed abandoning ship till the last minute. As protocol prevented other passengers from leaving before royalty, the delay in the Duke’s departure led to countless deaths.

3) **Lake Sawa:** located in Muthanna governorate in southern Iraq, has completely dried up.

- The amazing thing about Lake Sawa is that it “does not connect to any surface water source, and it is completely closed. The only source feeding it is groundwater from deep caves with unknown depths.”
- Iraqis call the salty lake the Pearl of the South, and its water contains minerals used for medicinal purposes.
- The lake has been drying up since 2014 and he causes have been climate change and rising temperatures. Over 1000 wells illegally dug for agriculture in the region.

4) **E-Vidhan System:** The National e-Vidhan Application (NeVA) is a system for digitising the legislative bodies of all Indian states and the Parliament through a single platform.

- It is a Mission Mode Project (MMP) under the Digital India Programme.
- The Ministry of Parliamentary Affairs (MoPA) is the ‘Nodal Ministry’ for its implementation in all the 31 States/UTs with Legislatures.

- The funding for e-Vidhan is provided by the MoPA and technical support by the Ministry of Electronics and Information Technology (MietY).
- The funding of NeVA is through Central Sponsored Scheme. 60:40; and 90:10 for North East & hilly States and 100% for UTs.
- The house proceedings, starred/unstarred questions and answers, committee reports etc. will be available on the portal

5) **Ross ice shelf:** Researchers have found microplastics in the snow samples from the Ross Ice Shelf in Antarctica.

- Ross Ice Shelf is the largest ice shelf of Antarctica roughly the size of France.
- Ninety percent of the floating ice, however, is below the water surface.
- Most of Ross Ice Shelf is in the Ross Dependency claimed by New Zealand.
- It floats in, and covers, a large southern portion of the Ross Sea and the entire Roosevelt Island located in the east of the Ross Sea.



16.6.22

1) **Supermoon:** A supermoon occurs when the Moon's orbit is closest to the Earth at the same time that the Moon is full.

- Since a full Moon appears at the point of least distance from earth, not only does it appear to be brighter but it is also larger than a regular full moon.
- In a typical year, there may be two to four full supermoons and two to four new supermoons in a row.

2) **IPC sec 29A:** Section 295A defines and prescribes a punishment for deliberate and malicious acts, intended to outrage religious feelings of any class by insulting its religion or religious beliefs, shall be punished with imprisonment of either description for a term which may extend to [three years], or with fine, or with both

- The state often invokes Section 295A along with Section 153A of the Indian Penal Code, which penalises promoting enmity between different groups on grounds of religion, race, place of birth, residence, language, etc

3) **SIPRI report:** Stockholm International Peace Research Institute (SIPRI) launched the findings of SIPRI Yearbook 2022, which assesses the current state of armaments, disarmament and international security.

- Russia and the USA together possess over 90% of all nuclear weapons.
- The five largest arms importers were Saudi Arabia, India, Egypt, Australia and China with India being the top importer during 2017-2021.
- The five largest suppliers in 2016-20 - the United States, Russia, France, Germany and China - accounted for 76% of the total volume of exports of major arms.

4) **SIPRI:** The SIPRI is an independent international institute dedicated to research into conflict, armaments, arms control and disarmament.

- Established in 1966 at Stockholm, SIPRI provides data, analysis and recommendations, based on open sources, to policymakers, researchers, media and the interested public.

5) **Northern Ireland Protocol:** It aims to resolve the issue of the border between Northern Ireland and the Republic of Ireland.

- Northern Ireland is part of the UK and the Republic of Ireland remains part of the European Union (EU).
- This frontier is contested and parts of it were fortified during the decades of violence known as "The Troubles"
- The Good Friday Agreement, also known as Belfast Agreement, was reached on Good Friday, 10th April 1998.
- It was an agreement between the British and Irish governments and most of the political parties in Northern Ireland, on how Northern Ireland should be governed.



17.6.22

1) **Black death:** The term Black Death refers to the bubonic plague that spread across Western Asia, Northern Africa, Middle East and Europe in 1346-53 and is the biggest pandemic in history.

- The bacteria *Y. pestis* spread to human populations, who at some point transmitted it to others either through the vector of a human flea or directly through the respiratory system.
- Contemporaries often described the buboes (hard, inflamed lymph nodes) as the distinguishing clinical feature. It is also referred to the disease in 1348 as the 'mortal disease of buboes' and 'pestilence of buboes'.
- Now, its origin is being traced to Kyrgyzstan.

2) **Champaner Pavagadh:** Champaner-Pavagadh Archaeological Park, a UNESCO World Heritage Site, is located in Panchmahal district in Gujarat, India.

- It is located around the historical city of Champaner, a city which was built by Sultan Mahmud Begada of Gujarat.
- The Pavagadh hill composed of reddish-yellow coloured stone formation is one of the oldest rock formations in India
- There are temples of nagara style as well as fortified monuments and mosques. The most important mosques among them is the Jama Masjid which represents a perfect combination of Hindu-Moslem architecture.

3) **ASEAN:** The Association of Southeast Asian Nations is a regional organization which was established to promote political and social stability amid rising tensions among the Asia-Pacific's post-colonial states.

- The motto of ASEAN is "One Vision, One Identity, One Community"
- Headquarter: Jakarta, Indonesia.
- 1967 – ASEAN was established with the signing of the ASEAN Declaration (Bangkok Declaration) by its founding fathers.



4) **Urban heat island:** Urban heat island may be defined as the local and temporary phenomenon in which certain pockets within a city are experiencing higher heat load than its surrounding area.

- This rise of heat basically happens due to buildings and houses of cities made up of concrete where the heat is trapped and not able to dissipate easily.

5) **Twin cyclones:** The symmetric tropical cyclones on either side of the equator are known as Twin Cyclones.

- For example Cyclone Asani in the northern hemisphere and Cyclone Karim in southern hemisphere.
- The interplay of the wind and the monsoon system combined with the Earth system produces these synchronous cyclones.

18.6.22

1) **Inter state council:** Art 263 contemplates the establishment of an inter-state council to effect coordination between the states and between centre and states

- It is a recommendatory body that has been empowered to investigate and discuss subjects of common interest between the Union and state(s), or among states.
- The Council may meet at least thrice in a year.
- The Prime minister is its chairman.

2) **FATF:** The Financial Action Task Force (FATF) is an inter-governmental body established in 1989 on the initiative of the G7.

- The FATF Secretariat is housed at the OECD headquarters in Paris.
- To set standards and promote effective implementation of legal, regulatory and operational measures for combating money laundering, terrorist financing and counter the financing of proliferation of weapons of mass destruction.
- The FATF currently has 39 members including two regional organisations - the European Commission and Gulf Cooperation Council. India is a member of the FATF.
- The FATF Plenary is the decision-making body of the FATF. It meets three times per year.

3) **Grey list of FATF:** The FATF has retained Pakistan on its 'greylist' or 'increased monitoring list'.

- Countries that are considered safe haven for supporting terror funding and money laundering are put in the FATF grey list. This inclusion serves as a warning to the country that it may enter the blacklist.
- Countries known as Non-Cooperative Countries or Territories (NCCTs) are put in the blacklist. These countries support terror funding and money laundering activities.
- Currently, Iran and Democratic People's Republic of Korea (DPRK) are under High-risk Jurisdiction or black list.

4) **Pinkwashing:** it is the strategy of promoting LGBT rights protections as evidence of liberalism and democracy, especially to distract from or legitimize violence against other countries or communities.

- More broadly, pinkwashing can also be defined as "the deployment of superficially sympathetic messages for [ends] having little or nothing to do with lesbian, gay, bisexual, transgender, and queer (LGBTQ) equality or inclusion", including LGBT marketing.

5) **Mukhyamantri Matrushakti Yojana:** it will cover 7 lakh women and is Gujarat government's first scheme aimed at dealing with dietary deficiency within the first 1,000 days of the conception of a child (from pregnancy to 2 years), considered the crucial first window to check malnutrition.

- The scheme will entail distribution of 2 kg chickpeas, 1 kg Toor dal and 1 litre fortified ground nut oil.
- Packets will have bar codes which will be scanned and the scheme is OTP based. This means the beneficiary will receive OTPs confirming that they have received these packages.

20.6.22

1) **Black swan event:** It is an unpredictable event that is beyond what is normally expected of a situation and has potentially severe consequences.

- Black swan events are characterized by their extreme rarity, severe impact, and the widespread insistence they were obvious in hindsight.
- Such events can be either positive or negative. E.g. the advent of the internet was such a positive watershed event which changed the way people look and live.

2) **Juneteenth:** The portmanteau of June and nineteenth— is the oldest nationally celebrated commemoration of the ending of slavery in the US, observed on June 19 every year.

- It is also known as **Emancipation Day** or **Juneteenth Independence Day**.
- On January 1, 1863, then-president Abraham Lincoln issued the Emancipation Proclamation, which declared that "all persons held as slaves" free. However, slavery still continued.
- On June 19, 1865, two months after the Civil War had ended, Major General Gordon Granger, from the victorious Union side, arrived in Galveston, Texas, and issued an order to free the last enslaved people on US soil.

3) **Spectrum auctions:** Devices such as cellphones and wireline telephones require signals to connect from one end to another. These signals are carried on airwaves (medium of radio waves), which must be sent at designated frequencies to avoid any kind of interference.

- Interference may prevent reception altogether, may cause only a temporary loss of a signal
- The Union government owns all the publicly available assets within the geographical boundaries of the country, which also include airwaves.
- The central government through the Department of Telecom (Ministry of Communications) auctions these airwaves from time to time.
- These airwaves are called spectrum, which is subdivided into bands which have varying frequencies.
- All these airwaves are sold for a certain period of time, after which their validity lapses, which is generally set at 20 years.

4) **Palm oil:** Palm oil is currently the world's most consumed vegetable oil.

- Palm oil is an edible vegetable oil derived from the mesocarp (reddish pulp) of the fruit of the oil palms.
- It is resistant to oxidation and so can give products a longer shelf-life; it's stable at high temperatures

- It is used extensively in the production of detergents, plastics, cosmetics, and biofuels.
- Indonesia is the largest producer of palm oil, followed by Malaysia. Top consumers of the commodity are India, China, and the European Union (EU).

5) **Bureau of Indian Standards (BIS):** BIS is the National Standards Body of India working under the aegis of the Ministry of Consumer Affairs, Food & Public Distribution.

- It is established by the Bureau of Indian Standards Act, 1986
- It governs all the industrial standardization and the industrial product certifications in India. It is thus a national standards organization of India.

21.06.22

1) **21st amendment of Sri Lanka:** It will remove several key powers of the President, essentially reducing the Presidency to a ceremonial position, like in India.

- It is expected that the amendment might be retaining the powers of the President on all three armed forces while handing over almost all other key powers including governance, and cabinet ministers to the Prime Minister.

2) **Single use plastic:** it refers to plastic items that are used once and discarded.

- Single-use plastic has among the highest shares of plastic manufactured and used — from packaging of items, to bottles (shampoo, detergents, cosmetics), polythene bags, face masks
- Single-use plastic also accounts for the majority of plastic discarded
- The Ministry had already banned polythene bags under 75 microns in September 2021, expanding the limit from the earlier 50 microns. From December, the ban will be extended to polythene bags under 120 microns.

3) **National Chambal Sanctuary (NCS):** it is called a tri-state sanctuary due to its diverse area in three states.

- It emerges from the Vindhya hill range of Madhya Pradesh, flows in Rajasthan and merges in the Yamuna River, where five rivers meet called Pachanada in Uttar Pradesh.
- The Chambal river is one of the pollution-free rivers of India, which provides a perfect habitat for the Gangetic Gharials and the Gangetic Dolphins
- This is perhaps the only wetland sanctuary in India for the conservation and management of crocodiles

4) **Spiny horntail dragonfly:** Dragonfly enthusiasts have recorded the presence of a rare dragonfly that was hitherto unseen in Kerala. It was found earlier in Maharashtra.

5) **Siruvani dam:** it is a dam in Palakkad District, Kerala.

- This dam constructed across the Siruvani River, is for supplying drinking water to the city of Coimbatore in Tamil Nadu.
- The dam is surrounded by reserve forests. Muthikulam hill is situated on the eastern side of the dam. There is a natural waterfall in the hill.
- The location being in the state of Kerala, the project was executed by the Kerala Public Works Department using the funds made available by the Tamil Nadu Government.
- The Siruvani River is a river near Coimbatore. It is tributary of Bhavani river, which in turn is a tributary of Kaveri.

22.6.22:

1) **Heterologous vaccine:** In homologous boosting, a person is injected with the same vaccine that was used for the two previous doses. In **heterologous boosting**, a person is injected with a different vaccine from that was used for the primary dose.

- There is a growing body of scientific evidence to prove that when heterologous doses are used as booster shots, the immune response is more efficient.
- Covid-19 vaccine Corbevax has become the first to be approved by the country's drug regulator as a heterologous booster in adults.

2) **Twin deficit:** Current Account Deficit and Fiscal Deficit (also known as "budget deficit" is a situation when a nation's expenditure exceeds its revenues) are together known as twin deficits and both often reinforce each other, i.e., a high fiscal deficit leads to higher CAD and vice versa.

- There is a deficit in Current Account if the value of the goods and services imported exceeds the value of those exported.
- The fiscal deficit is the difference between the government's total expenditure and its total receipts (excluding borrowing)

3) **Rohith Chakrathirtha committee:** To review Karnataka textbooks from class 1 to class 10.

- The demand for review emerged as certain parts of these textbooks hurt the Brahmin sentiments by projecting Vedic period as negative.

4) **Lingayats:** Lingayats are followers of Basavanna, the 12th-century social reformer who rebelled against Hindu society and established a new dharma.

- Veerashaivas in Karnataka, influenced by the preachings of Basavanna adapted the same into their lives and faith.
- They are strict monotheists. They enjoin the worship of only one God, namely called Linga(Shiva).
- However, it should be noted that the words 'Linga' here does not mean the Linga which is established in temples, but the universal consciousness qualified by the universal energy (Shakti).
- Lingayat community members argue that it is different from that of Hinduism as it is Gender-neutral, caste-neutral treatment of equality.

5) **Virasaivism:** Means the Saivism of the stalwarts or heroic Saivism.

- The Linga they wear on their person distinguishes the Virasaivas from the Suddhasaivas. Hence the name 'Lingayats' is also applied to them and the cult itself is called Lingayata.
- They precede Basavanna, the founder of Lingayatism.
- They are found largely in Karnataka, Andhra Pradesh and Kerala.
- All sects of the Virashaiva follow the 'Pancha Peeta', five mutts.
- While Lingayats argue that their religious practices are not similar to Virashaivas or Hindus, the Virashaiva community has called Lingayatism a part of Hindutva.

Lingayat:		Veerashaiva:
12th-century social reformer Basava's sect	Origin	Born out of Shiva's lingam, followers of the panch peeth
Shiva as a formless entity	Worship	Shiva from the Vedas, as a human
Basava's vachanas Does not believe in the caste system	Belief	The Vedas Believes in the caste system
Bans temples and icon worship	Religious Institutions	Has temples and priests

23.6.22

1) **Keibul Lamjao National Park:** It is a national park in the Bishnupur district of the state of Manipur in India.

- It is the only floating park in the world and an integral part of Loktak Lake.
- The national park is characterized by many floating decomposed plant materials locally called phumdis.
- To preserve the natural refuge of the endangered Manipur Eld's deer or brow-antlered deer or sangai also called the dancing deer, listed as an endangered species by IUCN, the park which was initially declared to be a sanctuary in was subsequently declared to be a national park.

2) **The Group of Seven (G-7):** It is an informal bloc of industrialized democracies—France, Germany, Italy, the United Kingdom, Japan, the United States, and Canada—that meets annually to discuss issues of common interest like global economic governance, international security and energy policy.

- There are no formal criteria for membership, but participants are all highly developed democracies. The aggregate GDP of G-7 member states make up nearly 50% of the global economy and 10% of the world's population.
- Summits are held annually and hosted on a rotation basis by the group's members. The host country not only holds the G7 presidency but also sets the agenda for the year.
- The 2022 summit is being hosted by Germany.

3) **Azooxanthellate corals:** Scientists have recorded four species of azooxanthellate corals for the first time from Indian waters.

- These new corals were found from the waters of Andaman and Nicobar Islands
- Azooxanthellate corals are a group of corals that do not contain zooxanthellae and derive nourishment not from the sun but from capturing different forms of plankton.

- These groups of corals are deep-sea representatives, with the majority of species reporting from between 200 m to 1000 m. Their occurrences are also reported from shallow coastal waters.

4) **Banks Board Bureau (BBB)**: Banks Board Bureau (BBB) is an autonomous body to Promote excellence in Corporate Governance in Public Sector Financial Institutions.

- The BBB works as step towards governance reforms in Public Sector Banks (PSBs) as recommended by J. Nayak Committee.
- It was formed in 2016 to select executive directors, and managing directors and chief executives of state-run banks.

5) **Typhoid**: Typhoid is a bacterial disease caused by the Salmonella Typhi.

- MDR Typhoid - Typhoid strains were classified as Multi-Drug-Resistant (MDR), when they are resistant to 3 first-line antibiotics used to treat typhoid - chloramphenicol, ampicillin, and cotrimoxazole.
- XDR typhoid strains are resistant to five classes of antibiotics -chloramphenicol, ampicillin, cotrimoxazole, streptomycin, fluoroquinolones, and third-generation cephalosporins.
- This leaves only one oral antibiotic remaining, azithromycin, that is effective in treating XDR typhoid patients.

24.6.22

1) **Mo Bus**: Bus service of Odisha, has been recognised by the United Nations as one of 10 global recipients of its annual Public Service Awards for 2022.

- The buses are designed to integrate smart technologies such as free on-board Wi-Fi service, digital announcements, surveillance cameras, and electronic ticketing.
- To increase women's participation in the workforce, and to make women riders feel safer, it is committed to ensuring that 50% of Mo Bus Guides (conductors) are women.

2) **E-way bill**: An electronic way bill or 'e-way bill' system offers the technological framework to track intra-state as well as inter-state movements of goods of value exceeding Rs 50,000, for sales beyond 10 km in the new Goods and Services Tax (GST) regime.

- Under the e-way bill system, there will be no need for a separate transit pass for every state — one e-way bill will be valid throughout the country for the movement of goods.
- The rules specify that the permits would be valid for one day for the movement of goods for 100 km, and in the same proportion for following days.

3) **Sao Joao festival**: San Janv or São João is an annual Catholic festival celebrated on June 24 in Goa

- After Mass, young Goan Catholic men leap into and swim in local wells, streams and ponds as a tribute to St. John the Baptist.
- Enjoyed by children and adults alike, the festival also includes playing the traditional gumott (percussion instrument), a boat festival, servings of feni, and a place of pride for new sons-in-law.

4) **Foreign portfolio investment (FPI)**: It consists of securities and other financial assets passively held by foreign investors.

- It does not provide the investor with direct ownership of financial assets and is relatively liquid depending on the volatility of the market.
- FPI is part of a country's capital account and is shown on its Balance of Payments (BOP).
- The investor does not actively manage the investments through FPIs, he does not have control over the securities or the business. The investor's goal is to create a quick return on his money.
- FPI is often referred to as "hot money" because of its tendency to flee at the first signs of trouble in an economy.

5) **Open Network for Digital Commerce (ONDC)**: The ONDC aims at promoting open networks developed on open-sourced methodology, using open specifications and open network protocols, independent on any specific platform.

- The project to integrate e-commerce platforms through a network based on open-source technology has been tasked to the Quality Council of India.
- Implementation of ONDC, which is expected to be on the lines of Unified Payments Interface (UPI) could bring various operational aspects put in place by e-commerce platforms to the same level.

- Various operational aspects include onboarding of sellers, vendor discovery, price discovery and product cataloguing etc.
- On ONDC, buyers and sellers may transact irrespective of the fact that they are attached to one specific e-commerce portal.

25.6.22

1) **Alzheimer's Disease:** It is a neurological disorder which causes brain cells to degenerate and die. This leads to loss of memory, problems with words in speaking or writing, poor judgment, changes in mood and personality, confusion with time or place, etc.

- Alzheimer's is the most common cause of **dementia** among older adults. Dementia is a group of brain disorders that cause the loss of intellectual and social skills.
- Alzheimer's is caused by the build-up of proteins known as tau tangles or plaques within the brain and is also known as the third type of diabetes.
- Tau is a protein that when it occurs in tangled formations in the brain of Alzheimer patients, disrupts the ability of neurons to communicate with one another in the brain.
- Alzheimer's is an incurable disease, as the death of brain cells cannot be reversed.

2) **VL-SRSAM:** The Vertical Launch Short Range Surface to Air Missile was successfully flight-tested by the Defence Research and Development Organisation (DRDO) & Indian Navy.

- it is an indigenously developed ship-borne weapon system by DRDO.
- It has been designed to strike at the high-speed airborne targets at the range of 40 km to 50 km and at an altitude of around 15 km.
- It is an indigenous upgrade to the 2-decade-old Israeli Barak 1 surface-to-air missile system on board Indian warships.

3) **Elvira Rat:** or the large rock rat is a rodent found only in the Yercaud hills.

- It is a nocturnal and fossorial (burrowing) species.
- It is found only in the Eastern Ghats, Tamil Nadu.
- It is not found in any protected areas.
- Threats - The main threat to this species is a decline in habitat due to the expansion of human settlements, mining in the foothills, uncontrolled grazing in the rocky areas, etc.
- IUCN Red List Status: Critically Endangered
- Wildlife (Protection) Act, 1972: Schedule V (Vermin)

4) **Giant Stingray:** The world's largest recorded freshwater fish, a giant stingray, has been caught in the Mekong River in Cambodia.

- It is found throughout the large rivers and estuaries of Borneo and Southeast Asia.
- While this species of giant stingray has an extremely dangerous venomous barb that can reach nearly 1 foot in length, they are not usually a threat to humans.
- More often, they wind up in the market as a source of cheap protein.

5) **Mekong River:** it is a trans-boundary river, flowing in East Asia and Southeast Asia.

- It is the longest river in Southeast Asia.
- Originating in the Tibetan Plateau, it runs across China, Myanmar, Laos, Thailand, Cambodia, and Vietnam.
- It drains into the South China Sea



27.6.22

1) **Coat hanger abortion:** The coat hanger serves as a symbol of the reproductive rights movement and a reminder of the gruesome pre-Roe era.

- It technically means an unsafe abortion. It refers to the practice of using the object to induce an abortion, as with many other household objects or homemade herbal concoctions, in the unavailability of safe or legal abortion access.

2) **Virtual private network (VPN):** It is a private network that is virtually created when you surf the Web. Every time you switch on your VPN connection, a secure channel is created, which acts as an intermediary between your device and the destination webpage. Your data is then sent to an external VPN server, which then connects you to your destination.

- However, when the VPN server does this, your IP address, which is the online equivalent of a user-specific postal code, is changed — and thus websites are unable to accurately track your location. This private network promotes online safety and enhances your overall privacy on the Web.

3) **Zero Defect Zero Effect Scheme (ZED):** Launched in 2016 by the Ministry of MSME, the scheme is an integrated and comprehensive certification system.

- **Zero Defect:** The Zero defect concept is focusing on the customer, Zero non-conformance or non-compliance, Zero waste.
- **Zero Effect:** Zero air pollution, liquid discharge, solid waste, Zero wastage of natural resources.

4) **Amaranthus:** It refers to a wide variety of leafy vegetables including Kirkire Soppu, Dantina Soppu etc which are consumed but in a limited manner.

- It is an excellent source of calcium, magnesium, potassium, vitamin A, B and C, and an incredible source of vitamin K and the crop offered the most nutrition per calorie than most foods.
- Efforts are underway to popularise the inclusion of Amaranthus as part of mixed cropping among farmers in the region of Mysuru.

5) **Madras Hedgehog:** Bare-bellied hedgehog or Madras hedgehog (*Paraechinus nudiventris*) is an elusive animal found in Tamil Nadu.

- It is also known as mul eli (mul meaning thorn, and eli meaning rat) or irmal eli aka cough rat.
- Habitat - These insectivorous mammals have been on this land since before human evolution. It is endemic to this land.
- They are nocturnal, and have unique habitats that have only been seen in selected patches.
- Hedgehogs in the UK hibernate in winter, but the ones in South India aestivate in summer instead.

28.6.22

1) **Satluj Yamuna Link (SYL) Canal:** it is a proposed 214-kilometer long canal to connect the Sutlej and Yamuna rivers. However, the proposal met obstacles and was referred to the Supreme Court.

- The creation of Haryana from the old (undivided) Punjab in 1966 threw up the problem of giving Haryana its share of river waters.
- To enable Haryana to use its share of the waters of the Sutlej and its tributary Beas, a canal linking the Sutlej with the Yamuna, cutting across the state, was planned.
- A tripartite agreement was also negotiated between Punjab, Haryana, and Rajasthan in this regard.

2) **Iskander-M missile system:** Russia has promised its ally Belarus delivery of nuclear- capable missiles in the coming months to take on an “aggressive” West.

- Codenamed “**SS-26 Stone**” by NATO, Iskander-M is a term used by Russia to define both the transporter-erector launch system and the short-range ballistic missile (SRBM) it fires. The system can also fire ground-launched cruise missiles (GLCMs)
- The Iskander-M system has been exclusively used by the Russian military, whereas Iskander-E is the one meant for export.
- The Iskander-M missile has a range of 500 km and it can carry a payload of up to 700 kg. It is capable of carrying both conventional and nuclear warheads.

3) **Performance Grading Index:** Released by Education Ministry, it measures the performance of states in school education. The Education Ministry released the first PGI in 2019 for the reference year 2017-18.

- It assesses states’ performance in school education based on data drawn from several sources.
- Parameters: States are scored on a total of 1,000 points across 70 parameters, which are grouped under five broad categories:

- Access (e.g. enrolment ratio, transition rate and retention rate); Governance and management; Infrastructure; Equity (difference in performance between scheduled caste students and general category students); Learning outcomes.
- Grading & not ranking: States are graded and not ranked to discourage the practice of one improving only at the cost of others.

4) **STEM education:** it is a curriculum based on the idea of educating students in 4 specific disciplines — science, technology, engineering and mathematics — in an interdisciplinary and applied approach.

- India is one of the countries that produce the highest number of scientists and engineers, the growth of STEM has picked up significantly over the last few years.

5) **Kandeleru Dam:** it is an irrigation project built on the Kandaleru River in Andhra Pradesh. The project is part of the Telugu Ganga project that supplies drinking water to Chennai city from the Srisailem reservoir on Krishna River. Kandaleru reservoir is mainly fed by a link canal from Somasila Dam.

- The Srisailem Dam is constructed across the Krishna River and is the 2nd largest capacity working hydroelectric station in the country.

29.6.22

1) **Hermit:** It is a spyware (on the lines of Pegasus) developed by an Italian vendor called RCS Lab.

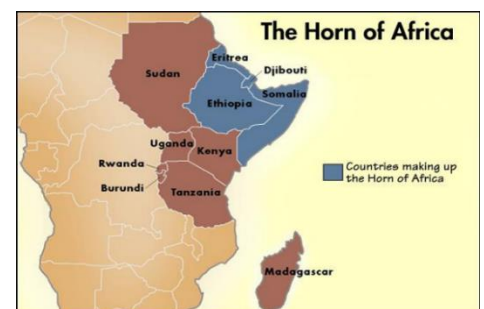
- The spyware can steal stored account emails, contacts, browser bookmarks/searches, calendar events, etc. The spyware can also upload files from the device, read notifications, and take pictures of the screen.
- Because it can gain access to the root or the 'privilege' access of an Android system, it can uninstall apps and reinstall compromised versions.

2) **Partners in the Blue Pacific:** The PBP is a five-nation "informal mechanism" to support Pacific islands and to boost diplomatic, economic ties in the region.

- Led by the **US** and its allies — **Australia, New Zealand, Japan and the United Kingdom.**
- Through the PBP, these countries — together and individually — will direct more resources here to counter China's aggressive outreach.
- The geostrategic competition in the region has intensified of late after China made the projected scope of its growing footprint clear by pushing for a sweeping, common cooperation agreement with 10 Pacific nations.

3) **Horn of Africa:** It is the easternmost extension of African land and includes the region that is home to the countries of Djibouti, Eritrea, Ethiopia, and Somalia, whose cultures have been linked throughout their long history.

- It is also known as the Somali Peninsula, is a large peninsula of East Africa.
- The Horn of Africa is equidistant from the equator and the Tropic of Cancer.



4) **P C Mahalanobis:** He is considered the father of modern statistics in India, founded the **Indian Statistical Institute (ISI)**, shaped the Planning Commission.

- He also devised a statistical method called '**Fractile Graphical Analysis**', used to compare socio-economic conditions of varied groups.
- Proposed the Mahalanobis Distance for the first time, which is a measure of comparison between two data sets.
- He was instrumental in formulating India's second five-year-plan (1956-1961), which laid the blueprint for industrialisation and development in India.

5) **Partnership for Global Infrastructure and Investment (PGII):** Launched by G7 countries, it is an initiative to fund infrastructure projects in developing countries and counter China's Belt and Road Initiative.

- It was first announced in June 2021 during last year's G7 Summit in the UK with the name Build Back Better World (B3W) framework. However, it did not register much progress

- The stated purpose of both the PGII and the BRI is to help secure funding for countries to build critical infrastructure such as roads, ports, bridges, communication setups, etc. to enhance global trade and cooperation. However, the G7 say their initiative is meant to be transparent, focused on building climate change-resilient infrastructure, and help in achieving objectives of gender equality and health infrastructure development.

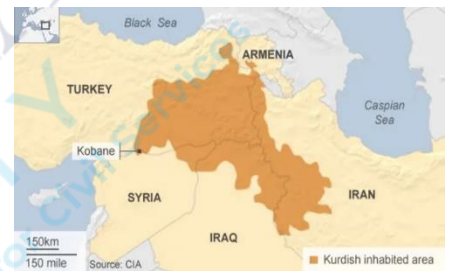
30.6.22

1) **CAPSTONE**: NASA'S new satellite, launched on Rocket Lab's Electron rocket from the Rocket Lab Launch Complex 1, is heading toward an orbit intended in the future for Gateway, a Moon-orbiting outpost. It is a microwave oven-sized CubeSat weighing just 55 pounds (25 kg).

- CAPSTONE aims to help reduce risk for future spacecraft by validating innovative navigation technologies, and by verifying the dynamics of the halo-shaped orbit.
- The orbit is known as a near-rectilinear halo orbit (NRHO). It is significantly elongated, and is located at a precise balance point in the gravities of Earth and the Moon. This offers stability for long-term missions like Gateway,

2) **Kurds**: At an estimated 25 million to 35 million population, they are the **world's largest stateless ethnic group**.

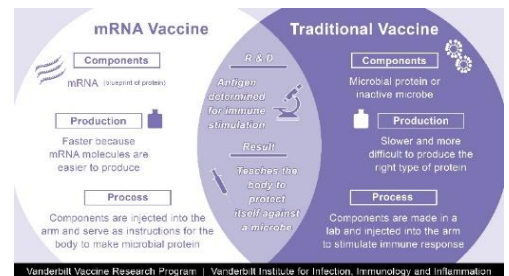
- The majority among the Kurdish people today are Sunni Muslim, but there are adherents of other faiths too, including Sufism and other mystical practices.
- They live in the highlands of southern and eastern Turkey, northern Iraq, the north-eastern Syria, north-western Iran, and parts of south Armenia, and are a minority in each of these countries. Small communities live in Georgia, Kazakhstan, Lebanon, and eastern Iran as well.
- The Kurds have never achieved nation-state status, except in Iraq, where they have a regional government called Iraqi Kurdistan. They have called for an autonomous Kurdistan.



3) **mRNA vaccines**: Tricks the body into producing some of the viral proteins itself.

- They work by using mRNA, or messenger RNA, which is the molecule that essentially puts DNA instructions into action.
- Inside a cell, mRNA is used as a template to build a protein.

4) **Constitutional morality**: It provides a principled understanding for unfolding the work of governance. It specifies norms for institutions to survive and an expectation of behaviour that will meet not just the text but the soul of the Constitution. It also makes the governing institutions and representatives accountable.



5) **Nadaprabhu Kempegowda**: He is a 16th century **chieftain of the Vijayanagara Empire**.

- He is credited to be the **founder of Bengaluru**.
- Kempegowda is also known to have developed around 1,000 lakes in the city to cater to drinking and agricultural needs.