VAJIRAM & RAVI

(Institute for IAS Examination)

Current Affairs (January 2022)

the RECITALS

Editor's Cut

Drones in Agriculture

Language of Courts

National War Memorial

Reservation in Local Body Polls

- India State Of Forest Report 2021
- Guidelines Under POSH Act
- Transgender To Get Separate Jail Wards
- Marital Rape
- SC & ST Quota In Promotion
- Russia-Ukraine Conflict
- Lanka-India Oil Tank Farm Deal
- India Assisted Projects In Mauritius
- WEF's Davos Agenda 2022
- Systemically Important Banks
- Semiconductor Development Programme
- Security Lapse: PM's Punjab Visit

NATIONAL SECURITY POLICY OF PAKISTAN

100 DAYS OF READING CAMPAIGN

ONE DISTRICT ONE PRODUCT

Table of Contents

Table of Contents

India State of Forest Report- 2021

The Ministry of Environment, Forests and Climate Change (MoEFCC) has released the India State of Forest Report- (ISFR) 2021.

About India State of Forest Report

- ISFR is an assessment of India's forest and tree cover.
- It is published every **two years** by the **Forest Survey of India** under MoEFCC.
- The first survey was published in 1987, and ISFR 2021 is the 17th.
- Three categories of forests are surveyed – **very dense forests** (canopy density over 70%), **moderately dense forests** (40-70%) and **open forests** (10-40%).
- **Scrubs** (canopy density less than 10%) are also surveyed but not categorized as forests.

Key Findings Of This Report

A. Total Forest & Tree Cover

- Forest and tree cover in country has increased by **2,261 square kilometres** since the last assessment in 2019.
- The total forest and tree cover was 80.9 million hectares, which accounted for **24.62%** of the geographical area of the country.
  - ✓ India's forest cover: 7,13,789 square kilometres, 21.71% of the country's geographical area, an increase from 21.67% in 2019.
  - ✓ Tree cover has increased by 721 sq km. Tree cover is defined as all tree patches of size less than one hectare occurring outside the recorded forest area. This covers trees in all formations including scattered trees.
- 17 States and Union Territories had more than 33% of their area under forest cover.

B. State-wise Cover

- **Largest Forest Cover**: Madhya Pradesh followed by Arunachal Pradesh, Chhattisgarh, Odisha and Maharashtra.
- **Highest Increase** in forest cover: Andhra Pradesh (647 sq. km), Telangana (632 sq. km) and Odisha (537 sq. km).
- **Highest % Increase** in forest cover: Telangana (3.07%), Andhra Pradesh (2.22%) and Odisha (1.04%).
- The top five States in terms of forest cover as a percentage of their total geographical area were Mizoram (84.53%), Arunachal Pradesh (79.33%), Meghalaya (76%), Manipur (74.34%) and Nagaland (73.90%).
- The **north-eastern state account** for 7.98% of total geographical area but 23.75% of total forest cover. The forest cover in this region has shown an overall decline of 1,020 sq km in

GAINS & LOSSES IN FOREST COVER SINCE 2019

Positive change (%)
- >3
- >2.0 to 3.0
- >1.0 to 2.0
- >0.5 to 1.0
- >0 to 0.5

No change

Negative change (%)
- >0 to -0.25
- >-0.25 to -0.5
- >-0.5 to -1.0
- >-1.0

GAINS	
State	**(sq km)**
Andhra Pradesh	647
Telangana	632
Odisha	537
Karnataka	155
Jharkhand	110

LOSSES	
State	**(sq km)**
Arunachal Pradesh	257
Manipur	249
Nagaland	235
Mizoram	186
Meghalaya	73

---
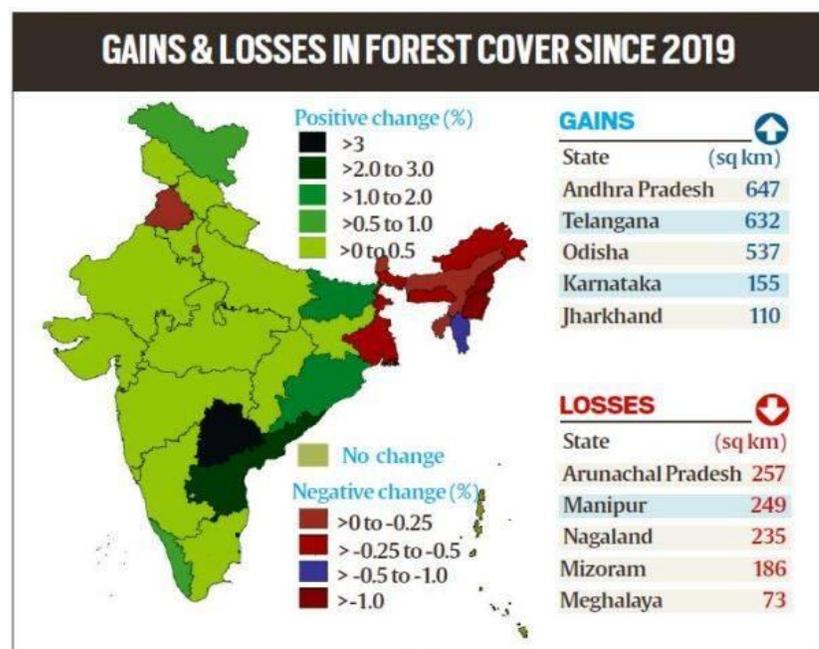
forest cover.

C. Mangrove Cover
- The total mangrove cover in the country had increased by **17 sq. km**, to reach 4,992 sq. km.
- Top three states showing mangrove cover increase are Odisha (8 sq km), followed by Maharashtra (4 sq km) and Karnataka (3 sq km).

D. Bamboo Cover
- Bamboo forests have grown from 13,882 million culms (stems) in 2019 to 53,336 million culms in 2021.

E. Carbon Stock
- The total carbon stock in forests was estimated to be 7,204 million tonnes, an increase of 79.4 million tonnes from 2019.
- The annual increase in the carbon stock is 39.7 million tonnes.

F. Forest Cover In Tiger Reserve
- For the first time ISFR 2021 assessed forest cover in tiger reserve, tiger corridor and the Gir forest.
- The forest cover in the **tiger corridor** has increased by **37.15 sq. km (0.32%)** from 2011-2021 but <u>decreased by 22.6 sq. km (0.04%) in tiger reserve</u>.
  - ✓ Forest cover has increased in 20 tiger reserves in these 10 years, and decreased in 32.
  - ✓ Buxa (West Bengal), Anamalai (Tamil Nadu) and Indravati reserves (Chhattisgarh) have shown an increase while the highest losses have been found in Kawal (Telangana), Bhadra (Karnataka) and the Sunderbans reserves (West Bengal).
  - ✓ Pakke Tiger Reserve in Arunachal Pradesh has the highest forest cover, at nearly 97%.

Concerns
- 35.46% of the forest cover is prone to forest fire. Out of this 2.81% is extremely prone.
- The report estimates that by 2030, 45-64% of forest in India will experience the effect of climate change and rising temperature.
- Forests in all states (except Assam, Meghalaya, Tripura and Nagaland) will be highly vulnerable climate hot spots. Ladakh (forest cover 0.1-0.2%) is likely to be the most affected.
- **Degradation of forest**: There is a 1,582 sq km decline in moderately dense forests, or "natural forests". The decline, in conjunction with an increase of 2,621 sq km in **open forest areas** – shows a degradation of forests in the country. Also, scrub area has increased by 5,320 sq km – indicating the complete degradation of forests in these areas.
  - o Very dense forests have increased by 501 sq km.
- The forest cover in the north east region has shown an overall decline of 1,020 sq km in forest cover.

Guidelines Under POSH Act

A petition has been filed in the Supreme Court **challenging guidelines** issued by the Bombay High Court in cases under **Protection of Women from Sexual Harassment (POSH) Act, 2013**

- These guidelines include a blanket bar on parties and advocates from sharing records, including orders and judgments, with the media.
- The guidelines were formed to protect the identities of parties in a case under POSH Act

Arguments Of The Petitioner

Against Article 19	• Order of High Court was a "death blow" to freedom of speech & expression under Article 19. • Well-informed citizenry governs itself better. Right to free speech can be curbed **only if it interferes with the administration of justice**. • Any injunction on the right of the people to know true and accurate facts is an encroachment on their right to information.
Suppression of Women's Voices	• In matters of social justice and women empowerment, **public discourse** plays a crucial role in shaping the nature of **legal entitlements** that are delivered to women • HC order may have a "ripple effect" and deter survivors from approaching courts as well as **setting a dangerous precedent** for trial cases.
Against Principle of Open Court	• It will legitimise undue protection to sexual offenders in gross violation of principles of open court, natural justice and fundamental rights of survivors. • In 2018 **Swapnil Tripathi v Supreme Court of India case,** the court recommended that the proceedings of the court to be broadcast live. Live streaming proceedings are a part of the right to access justice under Article 21

Vishaka Guidelines

- The Supreme Court in a landmark judgement in the Vishakha and others v State of Rajasthan 1997 laid down specific guidelines on the prevention of sexual harassment of women at the workplace.
- These defined sexual harassment and codified preventive measures like the formation of the complaints committee
- All employers both public and private sector should take appropriate steps to prevent sexual harassment.
- Victims of sexual harassment should have the option to seek transfer of the perpetrator or their own transfer.
- The guidelines were superseded by the Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013.

Sexual Harassment of Women at Workplace (prevention, prohibition and redressal) Act, 2013

- The Act defines sexual harassment in the workplace. The Act creates a mechanism for redressal of complaints. It also provides safeguards against false or malicious charges.
- Every workplace is required to constitute an Internal Complaints Committee (ICC). The ICC is mandatory at each office or branch with 10 or more employees.
- These ICCs have the powers of civil courts for gathering evidence.
- Penalties have been prescribed for employers. Non-compliance with the provisions of the Act shall be punishable with a fine. Higher penalties and cancellation of license or registration to conduct business is also mentioned if violations are repeated.
- Further Section 354A was added to the Indian Penal Code through the Criminal Law (Amendment) Act, 2013 to provide enough punishment for sexual harassment to women at the workplace.
- Responsibility of Administration: The State Government will notify the District Officer in every district, who will constitute a Local Complaints Committee (LCC) so as to enable women in the unorganised sector or small establishments to work in an environment free of sexual harassment.

Recommendations By Justice J.S. Verma Committee

In the aftermath of the 2012 gang rape in Delhi, Justice Verma was appointed chairperson of a three-member commission tasked with reforming and invigorating anti-rape law. He submitted his report in 2013, whose suggestions include --

- Form **State-level employment tribunal** to adjudicate all complaints, instead of an ICC.
  - ✓ Tribunal should be appointed by a collegium headed by Chief Justice of the concerned High Court.
  - ✓ It should comprise two retired judges with at least one of them being a woman, two eminent sociologists and one social activist in the field of gender-based discrimination.
  - ✓ To ensure speedy disposal of complaints, the tribunal should **not** function as a <u>civil court but may choose its own procedure to deal with each complaint.</u>

- **Expanding Scope of Act**
  - ✓ Domestic workers should be included within the purview of the Act.
  - ✓ Any "unwelcome behaviour" should be seen from the subjective perception of the complainant, thus **broadening the scope of the definition of sexual harassment**.
- The **time-limit of three months** to file a complaint should be done away with and a complainant should not be transferred without her consent.
- To encourage women to file complaints, it **opposed penalizing women for false complaints**.
- An employer could be held liable if he or she facilitated sexual harassment and permitted an environment where sexual misconduct becomes widespread and systemic.

SHe-Box

- Ministry of Women & Child Development has launched Sexual Harassment electronic Box (SHe-Box).
- It is an effort to provide a single window access to every woman, irrespective of her work status, whether working in **organised or unorganised, private or public sector**, to facilitate the registration of complaint related to sexual harassment.

EDITOR'S CUT

Transgender To Get Separate Jail Wards

Transgender inmates will soon get a separate enclosure/ward in prisons to ensure their right to privacy and dignity.

- In an **advisory** sent to the Heads of Prisons in States and UTs, the Union Ministry of Home Affairs said a person recognized as a transgender (transmen and transwomen) has **right to the self-perceived gender identity** under **Transgender Persons (Protection of Rights) Act, 2019.**
- According to a National Crime Records Bureau, there were **70 transgender prisoners** in jails across the country in 2020.

Key Points

Respecting self-identity	• At all times in <u>admission procedures, medical examination, search, lodging, clothing, treatment and care</u>, the jail officials should facilitate their access to the identity certificate **by helping them <u>apply/register on the national portal</u> for them.**
	• In event of the court warrant not mentioning the self-identified gender or if the gender is disputed by the person, the **Jail Superintendent** should, with the help of legal services authorities, assist the person in <u>making an application</u> for a change in gender identity.
Search Protocol	• The person conducting the search must ensure the safety, privacy and dignity of the person being searched.
	• At the stage where the search procedure requires stripping, it must be done in a private room or in a partitioned place.
	• The search procedure should be confined to **compliance with security protocols and restriction of contraband** and should not be aimed at determining the gender of person.
	• It can be carried out by a person of their <u>preferred gender or by a trained medical professional or a paramedic</u> trained in conducting searches.
Admission in Prison	• The prison admission register may be suitably revised to include "transgender" as a category other than male and female gender.

	• A similar provision may be made in the **Prison Management System** in maintaining electronic records.
Right To Dignity	• Laying emphasis on the same quality of **healthcare** and other facilities like communication with the outside world and rehabilitation after release • Due care may be taken by the prison authorities that separate facilities may not result in their **complete isolation or propagate social stigma** among such prisoners. • There should be adequate preservation of right to privacy and dignity in regard to separate toilets for transmen and transwomen as well as shower facilities.
Training Modules	• The training modules for the staff could be devised in collaboration with the Ministry of Social Justice and Empowerment, the prison training institutes, State Departments of Health, State Human Rights Commission, legal services authorities and representatives of transgender communities for developing an understanding of gender identity, dysphoria, human rights, sexual orientation and legal framework. • It also called for **training of prison medical officers** in the standards of care for transgender persons and their right to decide their self-identified gender.

A Look At The Events In Ensuring Rights Of Transgender

Naz Foundation vs Govt of Delhi (2009)	A 2001 plea against Sec 377 IPC was dismissed in 2004 but was remitted back to the High Court (HC) by the SC in 2006. In this judgment, HC decriminalizes consensual sexual acts of adults in private and said Section 377 to be violative of Articles 21, 14 and 15 of the Constitution. • Section 377 of IPC criminalizes private consensual sexual conduct between the adults of the same sex.
National Legal Services Authority v. Union of India (2014)	• Supreme Court held that transgender people be treated as **'third gender'** for the purpose of safeguarding their rights under **Part III** of our Constitution and the laws made by Parliament and State Legislature. • It upheld transgender persons' right to decide their **self-identified gender** and directed the Centre and State Governments grant legal recognition of their gender identity. • It also directed them to treat trans-genders as socially and educationally backward classes of citizens [OBCs] and extend all kinds of reservation in cases of admission in educational institutions and for public appointments.
Navtej Singh Johar vs. Union Of India (2018)	Supreme Court decriminalised homosexuality by striking off parts of Section 377 of IPC which were held violative of Fundamental Rights of LGBTQ Community.

Features of Transgender Persons Act, 2019	• Seeks to establish **Natonal Council for Transgender persons.**
	• Definition: The Act defines a transgender person as one whose gender does not match the gender assigned at birth. It includes transmen and trans-women, persons with intersex variations, gender-queers, and persons with socio-cultural identities, such as kinnar and hijra.
	• Certificate of Identity: The Act states that a transgender person shall have the right to self-perceived gender identity. A certificate of identity can be obtained at the District Magistrate's office and a revised certificate is to be obtained if sex is changed.
	• Prohibition against discrimination: including denial of service or unfair treatment in relation to:
	  ○ Education, employment, healthcare.
	  ○ Access to or enjoyment of goods, facilities, opportunities available to the public.
	  ○ Right to movement, right to reside, rent, or otherwise occupy property.
	  ○ Opportunity to hold public or private office.

Transgender Persons (Protection of Rights) Rules, 2020	The Central Government made the rules under the powers conferred by the Transgender Persons (Protection of Rights) Act, 2019.

Problems Still Faced By Transgender

As per 2011 Census, the total population of Transgender is 4.88 lakhs, the highest being in Uttar Pradesh followed by Andhra Pradesh, Maharashtra and Bihar.

- **Discrimination:** In employment, educational facilities, habitat, lack of medical facilities: like HIV care and hygiene, depression, hormone pill abuse, tobacco and alcohol abuse, and problems related to marriage and adoption.

- **Social Problems:** Inheritance of property or adoption of a child. They are often pushed to the periphery as a social outcaste and many may end up begging and dancing. This is by all means human trafficking. They even engage themselves as sex workers for survival.

- **Accesibility:** The lack of access to bathrooms and public spaces access is illustrative of discrimination in availing each facilities and amenities. They face similar problems in prisons, hospitals and schools.

- **Homelessness:** Some parents may outrightly disown and evict their own child for crossing the prescribed gender norms of the society and for not fulfilling the roles expected.

Prisons Act 1894 related to trans-persons

- It is the **central legislation** regulating the administration of prisons which majorly differentiates prisoners convicted under **civil law** from those convicted under **criminal law**.

- It does not even recognise sexual minorities based on **Sexual Orientation and Gender Identity (SOGI)**

➢ It only separates prisoners into the categories of gender-binary (men/women), young offenders, undertrials, convicts, civil prisoners, detenues and high-security prisoners.

- The NALSA judgment, while extending constitutional protection to trans-persons under Articles 14, 15, and 21, directs states to make policies on their legal and socio-economic rights. This extends to **trans-prisoners** as well, since prison is a state subject.

- Even though NALSA judgment constitutes the law of the land, there is still a requirement to bring forth changes in the present laws.

Marital Rape

A batch of petitions seeking **criminalisation of marital rape** has been filed in Delhi High Court. Union Government has said that it is considering a constructive approach towards criminalising it. The petition seeks to amend the criminal law that includes Section 375 (rape) of the Indian penal code (IPC).

Background

- It has been reported by UN Population Fund that more than 2/3rd of women in India aged 15 to 49 have been beaten or forced to have intercourse by the husbands.

- According to Economic Survey 2011, *one in five men* has forced their wife or partner to have intercourse.

- It is being observed that the ground for marital immunity for rape prosecution have emerged from the patriarchal nature of the society.

Legal Provision Regarding Marital Rape

Section 375 of IPC exempts forceful sexual intercourse by a man with his own wife from offence of rape, provided the wife is *above 15 years of age*. It is also known as marital rape exception.

Issues With The Legal Provision

- This is **against basic rights of women**. Article 14 is about right to equality and Article 21 is about right to life with dignity. The marital rape exception in Section 375 of IPC violates both provisions of the constitution.

- There are **inconsistencies in legal provisions**. Unlike marital rape exception in section 375 of IPC, the other provisions of sexual exploitation such as *sexual harassment (Section 354A), assault to disrobe modesty (Section 354B), Voyeurism (Section 354C), Stalking (Section 354D), Sexual intercourse by husband upon his wife during separation (Section 376B) and unnatural offences (Section 377)* <u>charges husband</u>.

- There exists an entrenched patriarchy in the society where by inequality exist within the marriage for a large majority of Indian women. The marital rape exception **manifests the same patriarchal belief** or '**doctrine of coverture'** whereby, upon marriage, women surrenders her rights of personal and sexual autonomy as well as bodily integrity and human dignity.

- It goes against the liberal and progressive constitutional values and international obligation such as **CEDAW (Convention on the elimination of all forms of discrimination against women)** adopted under the aegis of UN in 1979.

- The debate over criminalising marital rape compels a relook at how the **provisions of restitution of conjugal rights**, though gender-neutral, place an additional burden on women and poses a direct threat to their bodily autonomy, privacy and individual dignity.

- However, the union government argued in **Independent Thought vs. Union of India** case (2017) that criminalising marital rape will go against institution of marriage.

Conjugal Rights

- Conjugal rights are rights created by marriage, i.e. right of the husband or the wife to the **society of the other spouse**.

- The law recognises these rights— both in **personal laws** dealing with **marriage, divorce** etc, and in **criminal law** requiring **payment of maintenance and alimony** to a spouse.

- **Section 9 of the Hindu Marriage Act 1955** and **Section 22 of the Special Marriage Act 1954** empower a husband or a wife to move the local district court, complaining that the other partner has "withdrawn" from the marriage without a "**reasonable cause**".

- For restitution of conjugal rights and the court, on being satisfied of the truth of the statements made in such a petition and that there is no legal ground why the application should not be granted, may decree restitution of conjugal rights accordingly.

Impact of Marital Rape

- Due to decriminalised nature of marital rape, women are *facing worst forms of sexual abuses* within marriages which affect their physical well-being. Marital rape also affects women *mental and emotional wellbeing* which led to depression, anxiety, suicidal tendencies etc.

- *Impact on children psyche and mental health* due to being witness of sexual violence at home and lack of ability of mothers to provide proper care.

- Victims of marital rape continue to live with abusive partners which make them more vulnerable.

Way forward

- SC in **Joseph Shine case (2018),** which decriminalised adultery, held that women is not the property of her husband after marriage. This judgement thus *negates the 'doctrine of coverture'*. This very principle should be applied to do away with marital rape exception in India.

- India, being a **signatory of CEDAW**, should accept its recommendation to criminalise marital rape.

- Indian criminal code is based upon British legal system. In Britain, marital rape has been criminalised by the virtue of landmark judgement of R v R case in 1991. It is high time that India should also *come out* of Victorian morality of 'doctrine of coverture'.
- **J. S. Verma Committee in 2013** also recommended criminalising marital rape in India to safeguard women in marriages from sexual abuse and domestic violence.

Conclusion

Marriage cannot be an excuse for the forceful intercourse. The principal of gender equality requires that marital rape exception must go. J. S. Verma committee quoted that "training and awareness program should be provided to ensure that all levels of the criminal justice system and ordinary people are aware that marriage should not be regarded as extinguishing the legal or sexual autonomy of the wife".

SC & ST Quota In Promotion

Supreme Court **refused** to lay down the "**yardstick**" for determining the **inadequacy of representation** for granting reservation in promotion for schedule caste (SC)/scheduled Tribe (ST) candidates in government jobs. The court's judgement came in a batch of petitions from across the country seeking **further clarity on the modalities** for granting reservation in promotion.

Background

The Central and the State Government since 1950s have been following **a "policy" of reserving seats in promotions** in favour of SC and ST.

Indra Sawhney Case 1992

This **policy** was held to be **unconstitutional and void** by the SC in Indra Sawhney v. Union Of India 1992 case on the ground that under **Article 16(4)** the State is provided with the power to make reservations in favour of backward classes of citizens only at the **entry level,** that is at the time of recruitment into public services but not subsequently.

> ➢ The Parliament responded by enacting the **77th Constitutional Amendment Act** which introduced Article 16(4A), which made provision for reservation in matters of promotion, with consequential seniority, to any class or classes of posts in the services under the State in favour of the SC/STs which, in the opinion of the State, are not adequately represented in the services under the State.

M Nagaraj Case 2006

In this case applying the "creamy layer concept" in SC/ST reservation in promotions, the SC reversed its earlier stance in the Indra Sawhney case (1992), in which it had excluded the creamy layer concept on SCs/STs (that was applicable on OBCs).

- The SC had upheld the Constitutional amendments by which Articles 16 (4A) and 16 (4B) were inserted, saying they flow from Article 16 (4) and do not alter its structure.
- The court held that the government cannot introduce a quota in promotion for its SC/ST employees unless it proves that the particular community was backward, inadequately represented and providing reservation in promotion would not affect the overall efficiency of public administration.
- The opinion of the government should be based on quantifiable data.

Jarnail Singh Case 2018

- SC modified the Nagaraj judgement to the extent that State *need not* produce quantifiable data to prove the "backwardness" of a SC/ST community in order to provide quota in promotion in public employment.

- The court had given a huge fillip to the government's efforts to provide "accelerated promotion with consequential seniority" for SC/ST members in government services.

Key Points Of The Judgements

1. It held "**cadre**" and *not* <u>class, group or the entire service</u> as the **unit** for the purpose of **collection of quantifiable data** for giving promotion quotas.

2. It said otherwise the entire exercise of reservation in promotions would be rendered **meaningless** if data pertaining to the representation of SCs and STs was done with **reference to the entire service.**

3. With the recognition of 'cadre' as the unit for collection of quantifiable data, the court set aside its earlier judgement in the **B.K. Pavithra case (2019).**

   ✓ SC held that the conclusion of this court approving the collection of data on the basis of groups and not cadres is contrary to the law laid down by the SC in Nagaraj (2006) and Jarnail Singh judgments (2018).

   ✓ The court held that the Nagaraj judgement would have "prospective effect."

4. The question of **adequate representation** of an SC/ST community ought to be left to the **respective States** to determine and Supreme court cannot lay down any yardstick for determining the inadequacy of representation.

5. The Supreme Court ordered that a **review had to be conducted regarding the data** for the purpose of determining the inadequacy of representation in promotions. Court left it to the Union government to fix a "reasonable" time for the States to conduct the review.

Social justice, upliftment of weaker section and their proper representation at all level of governance are constitutional duty of state. Reservations in promotion are a way and mean to achieve this constitutional commitment.

EDITOR'S CUT

Russia-Ukraine Conflict

US President Joe Biden seemed to acknowledge the inevitability of Russia invading Ukraine. As many as 100,000 Russian troops have remained amassed at the Ukrainian border. This has raised fears that Moscow could launch an invasion.

Possible Reasons Behind Russia Amassing Its Troops At The Border

A. Russia wants a guarantee that Ukraine can never join NATO

- Russia's main demand is a commitment from NATO to end its further expansion into former Soviet republics — especially Ukraine.

- Russia wants NATO to rescind a 2008 promise that Ukraine could someday join the defense alliance.

B. Russia wants NATO arms out of Eastern Europe

- Russia wants NATO to stop deploying its <u>weapons and forces</u> in countries in Central and Eastern Europe that joined the alliance after 1997.

C. Russia wants a ban on NATO missiles within striking distance

- Russia has nervously watched as NATO has demonstrated it can deepen its involvement in Ukraine — providing weapons and training.

- <u>NATO missiles on Ukrainian soil</u> might pose serious threat to Russia's security.

- Russia says Ukraine must meet its obligations under 2015 agreements.

- The peace deal, known as the **Minsk agreements**, was signed to *end the fighting between Ukraine's army and pro-Russian separatists in eastern Ukraine.*

- The Minsk agreements also provided additional autonomy to the separatist Russian-speaking territories in the Donbas.

Historical Background

- Russia and Ukraine share a 1,974 km land border.

- Both the countries also share deep cultural, linguistic, economic and political bonds with each other.

- Russian President Putin has persisted in calling Ukraine "*Little Russia*". In July 2021, Putin wrote an article titled "*On the Historical Unity of Russians and Ukrainians*", in which he argued that <u>both nations are one people.</u>

- After World War II, the western part of Ukraine merged into the **Ukrainian Soviet Socialist Republic.** The whole country became a part of the Soviet Union.

- Ukraine gained its independence in **1991,** following the dissolution of the Soviet Union.

Cause of Conflict Over Ukraine

- **Geo-political Significance:** Ever since Ukraine split from the Soviet Union, both Russia and the West have vied for greater influence in country to keep the balance of power in the region in their favour.

- **Buffer Zone for Western Countries**: For US & EU, Ukraine is a crucial buffer between Russia & the West.

- **Russian Interest in Black Sea**: The unique geography of the Black Sea region confers several geopolitical advantages to Russia.
  - ✓ It is an important crossroads and strategic intersection for the entire region.
  - ✓ The region is an important transit corridor for goods and energy.

Annexation of Crimea

- Tensions between Ukraine and Russia escalated in late 2013 over a landmark <u>political and trade deal</u> with European Union.

- After the pro-Russian then-President, Viktor Yanukovych, suspended the talks, weeks of protests in Kyiv (capital of Ukraine) erupted into violence. Soon, the then pro-Russian President was ousted.

- Russia responded by **invading Crimea**, which was a part of Ukraine, and annexing it in March 2014. Russia invaded Crimea on the pretext that it was defending its interests and those of Russian-speaking citizens.

- Shortly afterwards, pro-Russian separatists in Ukraine's <u>Donetsk and Luhansk</u> regions declared their independence from Kyiv. They established their own autonomous state called Donetsk People's Republic in 2014.

- Later, Kyiv and Moscow signed a peace deal in **Minsk in 2015**. It was brokered by **France and Germany.**

India's Stand

- India did not join the Western powers' condemnation of Russia's intervention in Crimea and kept a low profile on the issue.

- In November 2020, India voted **against** a Ukraine-sponsored resolution in UN that condemned alleged human rights violations in Crimea thereby **backing old ally Russia on the issue**

EDITOR'S CUT

Lanka-India Oil Tank Farm Deal

Sri Lanka is moving ahead on finalising plans for **jointly developing** with India a massive oil tank farm at Trincomalee.

About Trincomalee Oil Tank Farms Project

- During the Second World War, the British built the Trincomalee oil tank farms. These oil tank farms were to serve as a *refueling station* and it was adjacent to the Trincomalee port, an *enviable natural harbour*.
- The nearly **century-old** oil tanks need to be refurbished — at the cost of millions of dollars — if they are to be fit for use again.
- The oil facility is **located in 'China Bay'**. It has 99 storage tanks with a capacity of 12,000 kilolitres each, spread across the Upper Tank Farm and the Lower Tank Farm.

India's Interest In This Project

- India`s engagement with Sri Lanka for development of this oil tank storage farm project dates back to **India-Sri Lanka Accord of 1987** (popularly referred as *Rajiv-Jayewardene Accord*).
  - ✓ The accord stated that the work of refurbishing tank farm located in north-eastern province of Trincomalee would be *undertaken jointly by the two countries*.
  - ✓ It was signed on the pretext of Civil War in Sri Lanka (between Tamils & Sinhala community).
  - ✓ It sought to balance India's **strategic interests in Indian ocean**, interest of people of Indian origin and Tamil minority rights in Sri Lanka.
  - ✓ The accord saw the placement of the Indian Peace Keeping Force (IPKF) in Sri Lanka
- Sri Lanka was facing an existential threat due to civil war and other factors. On the other hand, India was worried over the **spill-over political impact**. An apparent need was felt for an Indian foothold in Trincomalee with its deep -sea natural harbour in Sri Lanka`s Eastern Province.
- At that time, India was concerned with the strategic developments in Indian ocean and it wanted to increase its presence in the Indian Ocean littoral. Off late, this project has gained significant importance due to increasing **presence of China** in the region. Trincomalee is an important counterbalance to the **southern Hambantota Port backed by China**.

Status of the project since 1987 accord

- The agreement lay dormant as first India and then Sri Lanka fought the Tamil Tigers.
- An attempted revival in 2003 went nowhere. In 2003, Indian Oil Corporation set up its Sri Lankan subsidiary called **Lanka IOC**, to work on this oil farm.
- Currently, Lanka IOC runs 15 tanks. The new agreement is being negotiated for the remaining tanks.

  In 2017, the two sides agreed to operationalize the long-standing agreement. However, opposition from trade unions of the Ceylon Petroleum Corporation held up any progress in the matter.

India's Investment in Sri Lanka

1. Other Past Issues of Investment

The proposals to upgrade and operate **Mattala Rajapaksa International Airport** in 2018 and to develop the **Sampur power project** are examples of **how India's proposed investments were affected by political policy decisions.**

- Sri Lanka in 2019 decided to upgrade the Mattala airport near Hambantota Port not with the investment by India.
- India-Sri Lanka joint venture agreement for 500 MW Sampur Coal Power Plant, signed in October 2013, could not take off due to environmental, displacement concerns and Sri Lanka's decision to switch to renewable energy.
- Sri Lanka again proposed to develop, at the same place Liquefied Natural Gas (LNG) plant with the help of India in 2016, but uncertainty regarding the development of the plant continues.

2. The ECT Issue

- Sri Lankan Government's decision not to develop the **Colombo East Container Terminal (ECT)** is a setback to enhancing joint investments in mutually agreed areas.
- The Trilateral Agreement was signed in 2019 between **India, Sri Lanka and Japan to** develop the ECT (estimated cost of $ 500 million).
- After cancelling ECT project, Sri Lanka has offered **West Container Terminal to India and Japan.**

Analysis

- India's keen interest to engage with Sri Lanka in strategic and economic terms along with the robust development cooperation framework has been facing hurdles due to geopolitical and geo-strategic interests and calculations. Increasing presence of China is one among them.

- Deep suspicion regarding India's investment in South of the country and related political calculations continues to hamper India's investments at strategic points.

- The prevailing antipathy in Sri Lanka towards India's role in developing its strategic assets is not new. The present foreign policy contours of the government in Sri Lanka also point to a possibility of uncertainty regarding India's investments, despite the possible mutual economic benefits.

- The positive aspect amongst these developments at the bilateral level is that **both the countries have not closed doors for dialogue** and negotiations. The recent decision to jointly develop the oil tank farm at Trincomalee is an example of this.

[Also refer the topic *"Improving Ties with Sri Lanka"* from October 2021 and the topic *"India Finalizes Cooperation Plan to Revive Lanka's Covid hit Economy"* from December 2021 edition of the CA magazine]

India Extends $900 Million Aid To Help Sri Lanka Tide Over Its Economic Crisis

- Sri Lanka is reeling under a severe economic crisis. The island nation is under a severe foreign reserve crunch and there are fears it may default on debt repayment.

- Sri Lanka has over $7 billion outstanding debt this year, starting with $500 million International sovereign bonds maturing on January 18.

- The $900 million aid comes in the form of a $400 million currency swap and deferment of over $500

million due for settlement to the Asian Clearing Union (ACU).

[For detail about the current economic crisis of Sri Lanka, please refer the topic *"Food and Forex Crisis in Sri Lanka"* from September 2021 edition of the CA magazine]

About Asian Clearing Union (ACU)

- ACU was established with its **headquarter at Tehran, Iran**, in 1974 at the initiative of the United Nations Economic and Social Commission for Asia and Pacific (**ESCAP**), for promoting regional co-operation.

- The main objective of clearing union is to **facilitate payments among member countries** for eligible transactions on a multilateral basis, thereby economizing on the use of foreign exchange reserves and transfer costs.

- The Central Banks and the Monetary Authorities of **Bangladesh, Bhutan, India, Iran, Maldives, Myanmar, Nepal, Pakistan and Sri Lanka** are currently the members of the ACU.

India Assisted Projects in Mauritius

Recently, PM Modi and his Mauritius counterpart Pravind Kumar Jugnauth virtually inaugurated multiple projects.

Key Highlights

- They jointly inaugurated a $45-million **social housing project** with 956 units.

- They also laid foundation stone to **start work on 8 MW solar power plant** and a **civil service college** to be built with Indian aid of more than $500 million.

- The two countries also concluded following agreements --

  ✓ India is to provide about $190 million as assistance for a **metro rail** and $10 million for other infrastructure projects in Mauritius.
  ✓ India will also provide assistance for **small but high-impact development projects** in fields such as education, healthcare and disaster risk reduction.

- In coming days, both countries will begin work on several important projects such as renal transplant unit, Forensic Science Laboratory, National Library and Archives, Mauritius Police Academy.

Previous Cooperation

- In May 2016, India had extended a grant of $353 million to Mauritius as **Special Economic Package (SEP)** to execute **five priority projects**. These included: Metro Express Project, Supreme Court Building, New ENT Hospital, Supply of Digital Tablets to Primary School Children, and the Social Housing Project.

- The Dornier aircraft was leased in September 2021 and the free refit of the Coast Guard vessel was completed in October 2021.

India-Mauritius Bilateral Relations

> ## Background
>
> - Foundation lies in strong social- cultural bonds, historical traditions and our shared rich heritage.
> - From the 1820s, Indian workers started coming to Mauritius to work on **sugar plantations**.
> - From 1834, when **slavery was abolished** by the British Parliament, large numbers of Indian workers began to be brought to Mauritius as indentured labourers.
>   - The people who went to Mauritius from India took their language, customs, traditions, religious beliefs with them to their new abode.
> - November 2, 1834, marks the day when the **ship 'Atlas'** docked in Mauritius carrying the first batch of Indian indentured labourers.
>   - This day is now observed in Mauritius as 'Aapravasi Day'.
> - As a tribute to Gandhiji and the Indian freedom struggle, the National Day of Mauritius is celebrated on March 12 (the date of launch of Dandi Salt March).

Political Relation

- After independence on March 12, 1968, the first PM and the Father of the Mauritian Nation, Seewoosagur Ramgoolam accorded *centrality to India* in Mauritius' foreign policy.

- PM Modi visited Mauritius in **2015,** as Chief Guest at the Mauritian National Day celebrations.
  - ✓ During his visit, PM Modi commissioned the *Offshore Patrol Vessel Barracuda* (financed by a GoI Line of Credit) into the Mauritian Coast Guard.
  - ✓ He also launched the construction works of the *World Hindi Secretariat*.
  - ✓ It was during this visit that the PM Modi had outlined India's maritime cooperation vision of SAGAR – Security and Growth for All in the Region.

- In **March 2018,** President of India visited Mauritius as a Chief Guest to the commemorative events marking the 50th anniversary of the independence of Mauritius.

- In **February 2021**, during the visit of Indian Foreign Minister to Mauritius, India offered a USD 100 million line of credit to Mauritius to facilitate procurement of defence assets. During this visit, the two countries also signed a *Comprehensive Economic Cooperation Partnership Agreement* (CECPA). This was India's first such agreement with an African country.

Economic Relations

- India is Mauritius' largest trading partner and has been the **largest exporter** of goods and services to Mauritius since 2007.

- In 2020, India represented 10% share of Mauritian total imports and ranked **3rd** in their countries of **import.**
  - ✓ The volume of exports from India to Mauritius was USD 776 million in 2019 and USD 396 million in 2020.
  - ✓ The value of Mauritian exports to India in 2019 was USD 24 million and USD 32 million in 2020. **Trade balance is in favour of India**.

- The signing of **CECPA** between India and Mauritius will further improve trade relation.

- Mauritius was the **3rd largest source of FDI** into India during the financial year 2020-21, with FDI equity inflows amounting to USD 5.63 billion.

- **Geo-Economic**
  - ✓ As a member of the African Union, Indian Ocean Rim Association and the Indian Ocean Commission, Mauritius is a stepping stone to multiple geographies.
  - ✓ It is also a founding-member of the 'Small Island Developing States' (SIDS)

- India and Mauritius signed an MoU in March 2015. The main focus of the pact was the development of **island of Agalega**, some 1,122 km north of Mauritius. India is planning to invest funds to the tune of $ 18 million in all these developmental projects on Agalega Island.

- India is currently assisting Mauritius in constructing a **dedicated dockyard** to cater for a large number of vessels being inducted into the Mauritius Coast Guard.

- India, in March 2015 (during PM Modi visit), exported the first ever warship as an **Offshore Patrol Vessel 'CGS Barracuda'** to Mauritius, under a Government of India line of credit. India also handed over **10 Fast Interceptor Boats** to the National Coast Guard (NCG) of Mauritius under a line of credit agreement.

- In 2000, India had signed an agreement of cooperation with Mauritius in the information technology sector.

India's Assistance During Pandemic

- India launched **Mission Sagar** in May 2020, as part of the India's outreach initiative towards five Island nations in Indian Ocean, which included Mauritius, amidst the ongoing COVID-19 pandemic. Under the mission, India provided food Items, COVID related Medicines with Medical Assistance Teams to these nations.

- Later in January 2021, India delivered the Made-in-India COVID-19 Vaccines to Mauritius under the **Vaccine Maitri Initiative**.

- In August 2020, Mauritius had declared a national emergency over an oil spill near its coast. India promptly provided assistance to Mauritius in dealing with the situation.

Cultural Relations

- Out of Mauritian population of 1.3 million, **68% are of Indian descent** and with nearly 11,000 Indian currently residing in Mauritius.

- India ranks 4th in terms of Mauritian students studying in overseas tertiary education institutions.

- At **14th Pravasi Bhartiya Divas** in January 2017, Mauritius was granted a special carve-out for issuance of OCI Cards to its nationals of Indian origin. Under this initiative, restriction on the number of generations was waived off.

- Mauritius introduced a **visa-free regime for Indian tourists** in October 2004, whereby Indian tourists visiting Mauritius for a period up to 30 days do not require a visa.

WEF's Davos Agenda 2022

Recently, Prime Minister Modi addressed the World Economic Forum's *Davos Agenda* via video conferencing. The virtual event was held from 17 to 21 January.

Key Points From PM Modi's Speech

1. **Tackling Covid Challenge**

- India has administered **160 crore corona vaccine doses** in just one year.
- India is following the vision of **'One Earth, One Health'**. It is saving crores of lives by providing necessary medicines and vaccines to many countries.
- India is the **world's third largest pharma producer**; it's a pharmacy to the world.

2. **India's IT Sector & Start-up Boom**

   - More than 50 lakh software developers are working in India. Today, India has the **third largest number of Unicorns in the world**.
   - Unicorn is a term used in the venture capital industry to describe a privately held start-up company with a value of over $1 billion.

3. **Ease of Doing Business**

   - India is promoting Ease of Doing Business, minimizing government interference. Last year alone, **India eliminated more than 25 thousand compliances**.
   - It has reformed measures like retrospective taxes, simplification of Corporate Tax rate structure etc. India has also deregulated many sectors like Drones, Space, Geo-spatial mapping.

4. **A Trusted Partner In The World In Global Supply-chains**

   India is committed to becoming a trusted partner in the world in global supply-chains. It is making way for free-trade agreement with many countries.

5. **Attractive Destination For Investment**

   - India is the most attractive destination for investment due to various reasons:
     - Commitment to deep economic reforms and efforts being made to modernize <u>digital and physical infrastructure.</u>
     - Ability to adopt Innovation, new technology; the spirit of entrepreneurship of Indians.
   - India's focus is not only on easing the processes, but also on incentivising investment and production. Today, **$26 billion worth of PLI schemes** have been implemented in 14 sectors.

6. **Emphasise on Infrastructure (Digital & Physical Both)**

   - More than 6 lakh villages in the country are being connected with optical fibre.
   - An investment of $1.3 trillion is being made, especially on connectivity infrastructure.
   - India has launched **PM Gati Shakti Master Plan** that will integrate infrastructure, development and implementation. It will seamlessly connect goods, people and services.
   - In December 2021, 4.4 billion transactions were done through Unified Payments Interface (UPI).

7. **Goal of Global Good**

   - In order to achieve its goal of 'Global good', India has committed to ***net zero target by 2070.***
   - India, with 17% of the world's population, <u>*contributes only 5% in Global Carbon Emission*</u>, but its commitment to tackle Climate Challenge is 100%.
   - Initiatives like International Solar Alliance (**ISA**) and Coalition for Disaster-Resilient Infrastructure (**CDRI**) for Climate Adaptation are proof of this.
   - Today **40%** of our Energy Mix is coming from **non-fossil fuel** sources. India has already achieved the commitments made by India in Paris, 9 years before their target.

8. **Introduced 'P3 (Pro-Planet People) Movement' for Climate Change Commitments**

   - Throw away culture and consumerism have made the climate challenge more serious. In this context, it is very important to **rapidly shift today's 'take-make-use-dispose', economy towards circular economy**.
   - This issue was highlighted by PM Modi at COP-26 when he gave the idea of **Mission LIFE** (LIFE - Lifestyle for Environment).
   - P3 was coined with an assumption that a public participation campaign like LIFE can be made into a big base.

About World Economic Forum	- It is the international non-governmental organization for Public-Private Cooperation. - It was founded in January 1971 by German engineer and economist Klaus Schwab. - The Forum engages the foremost political, business, cultural and other leaders of society to shape global, regional and industry agendas. - It has no independent decision-making power. - HQ: Cologny-Geneva, Switzerland.
Davos Meet	- Annually, the WEF organizes a meeting at the end of January in Davos, a mountain resort in Graubünden, in the eastern Alps region of Switzerland. - The Annual Meeting, also known as the Davos Agenda, has the objective of orienting global leaders on the imperatives of the year ahead.

Reports Published	- WEF also produces a series of annual reports such as:
	  - Global Competitiveness Report - Global Travel and Tourism Report
	  - Global Information Technology Report - Financial Development Report
	  - Global Gender Gap Report - Global Enabling Trade Report.
	  - Global Risks Report

EDITOR'S CUT
Domestic Systemically Important Banks

The RBI has recently announced that State Bank of India (SBI), ICICI Bank, and HDFC Bank will continue to be identified as domestic systemically important banks (D-SIBs) or what is commonly called as lenders that are **too-big-to-fail (TBTF)**.

Background

- During the 2008 global financial crisis, it was observed that problems faced by certain large and highly interconnected financial institutions negatively impacted the economy. Thus, government intervention was considered necessary to ensure financial stability.

- **G-SIBs:** The Financial Stability Board (FSB), in consultation with the Basel Committee on Banking Supervision (BCBS) and national authorities, has identified **Global Systemically Important Banks** (G-SIBs) since 2011.

  ✓ In 2010, the FSB recommended that all member countries should have a framework to reduce risks related to Systemically Important Financial Institutions (SIFIs) in their jurisdictions.
  ✓ The **BCBS** developed a framework in 2011 for identifying the Global Systemically Important Banks (G-SIBs) and the amount of additional capital required to absorb losses in G-SIBs.

Financial Stability Board (FSB)

- Headquartered in Basel, Switzerland, the FSB is an international body that monitors and makes recommendations about the global financial system.
- It was established after the G20 London summit in 2009 as a successor to the Financial Stability Forum (FSF).
- The Board includes all G20 major economies, FSF members, and the European Commission.

Basel Committee on Banking Supervision (BCBS)

- BCBS is a committee of banking supervisory authorities established in 1974. It provides a forum for regular cooperation on banking supervisory matters.
- Its objective is to enhance understanding of key supervisory issues and improve the quality of banking supervision worldwide.
- At present, the BCBS has 45 members from 28 jurisdictions, consisting of Central Banks and authorities with responsibility of banking regulation.
- The Committee's **Secretariat** is located at the Bank for International Settlements (BIS) in Basel, Switzerland.

- The BCBS further required all member countries to have a regulatory framework to deal with Domestic Systemically Important Banks (D-SIBs).

Global Systemically Important Banks

- G-SIB status is determined using **five main criteria**

| cross-jurisdictional activity | interconnectedness | size | substitutability | complexity |

- The methodology is also used to rank a G-SIB's level of systemic importance (importance in the overall system) relative to other G-SIBs.
- The list of G-SIBs is reviewed annually, and banks can move in or out of G-SIB classification or be re-classified at a different level of systemic importance.

Domestic Systemically Important Banks

- In India, RBI had issued the framework for dealing with D-SIBs in **2014**. The framework requires the RBI to annually disclose the names of banks designated as D-SIBs starting from 2015.
- The assessment methodology adopted by RBI is primarily based on the BCBS methodology for identifying the G-SIBs **with suitable modifications** to capture domestic importance of a bank.
- The **indicators** used for assessment of D-SIBs are:

| size | interconnectedness | substitutability | complexity |

- Based on the sample of banks chosen, a **Systemic Importance Score (SIS)** of the banks is calculated. RBI determines a **cut-off score** beyond which banks are considered as D-SIBs.
- These banks are then placed in five different buckets (categories) depending upon their Systemic Importance Scores (SISs). Based on the bucket in which a D-SIB is placed, an additional common equity requirement has to be applied to it.
- The **Additional Common Equity Tier 1 (CET1)** requirement for D-SIBs was phased-in from April 1, **2016** and became fully effective from **April 1, 2019**. Additional CET1 requirements range from 0.20% to 0.80% of risk weighted assets (RWA).
- In case a **foreign bank** having branch presence in India is a G-SIB, it has to maintain additional **CET1 capital surcharge** in the country, proportionate to its Risk Weighted Assets (RWAs).

Common Equity Tier1 (CET1)

- **Common Equity Tier 1 (CET1)** capital includes the **core capital** that a bank holds in its capital structure.
  - The **core capital of a bank** includes equity capital and disclosed reserves such as retained earnings.
  - **Equity Capital** refers to that portion of the organization's capital, which is raised in exchange for the share of ownership in the company.
- **CET1 ratio** compares a bank's capital against its Risk-Weighted Assets (RWAs) to determine its ability to prevent financial distress.
- SBI is placed in the **third bucket**, and is therefore required to maintain **Additional CET1 at 0.60% of its RWAs.**
- ICICI Bank and HDFC Bank are placed in the **first bucket**, and are required to maintain **Additional CET1 at 0.20% of their RWAs.**

Risk Weighted Assets

- RWAs are used to determine the minimum amount of capital that must be held by banks and other financial institutions in order to reduce the **risk of insolvency (bankruptcy).**
- The capital requirement is based on a risk assessment for each type of bank asset.
- The assets are assigned a weight according to their level of credit risk. For example, cash in hand would have a weight of 0%, while a loan can carry different weights of 20%, 50%, or 100%, depending on how risky it is.

Significance

- According to RBI if a D-SIB fails, there would be significant disruption to the essential services they provide to the banking system and the overall economy.
- The too-big-to-fail tag also indicates that in case of distress, the government is expected to support these banks. Due to this perception, these banks are given certain advantages in funding.
- It also means that these banks have a different set of policy measures regarding systemic risks and moral hazard issues.
  - ✓ In economics, moral hazard occurs when an entity has an incentive to increase its exposure to risk because it does not bear the full costs of that risk.
  - ✓ Systemic risk can be defined as the risk associated with the collapse or failure of a company, industry, financial institution or an entire economy.
- D-SIBs are subjected to higher levels of supervision to prevent disruption in financial services in case of any failure.

Global Systemically Important Insurers (G-SIIs)

- G-SIIs: The FSB, in consultation with the International Association of Insurance Supervisors (IAIS) and national authorities, began identifying G-SIIs in 2013.
- IAIS, established in 1994, is a voluntary membership organization of insurance supervisors and regulators from more than 200 jurisdictions, constituting 97% of the world's insurance premiums.
- Insurance Regulatory and Development Authority of India (IRDAI) and the International Financial Services Centres Authority (IFSCRA) are its members.

Domestic Systemically Important Insurers (D-SIIs)

- **Life Insurance Corporation of India (LIC), General Insurance Corporation of India and The New India Assurance Co** have been identified as Domestic Systemically Important Insurers (D-SIIs) for 2020-21 by IRDAI.
- D-SIIs refer to insurers of such size, market importance and domestic and global interconnectedness whose distress or failure would cause a significant dislocation in the domestic financial system.
- IRDAI, just like the banking regulator **RBI** did to identify such "**too big to fail**" **banks and NBFCs**, had endeavored to identify such companies in the insurance business in the March of **2019**, in the aftermath of the **collapse of IL&FS** which triggered a massive liquidity crisis.

Semiconductor Development Programme

- Union Cabinet has recently approved Rs 76,000 crore programme for semiconductor and display manufacturing ecosystem in the country.
- The government has been focusing on creating **domestic capacity in electronics** through its **Production-Linked Incentive Schemes**.
- In total, the government has committed support of **₹2,30,000 crore ($30 billion)** to position India as global hub for electronics manufacturing with semiconductors as the foundational building block.
- Now, with the approval of current programme, the government has announced incentives for every part of supply chain including electronic components, sub-assemblies and finished goods.

- The move comes at a time when electronics supply chains around the world have been affected by a shortage of semiconductors (or chips) and large chipmakers including Intel, Taiwan Semiconductor Manufacturing Co. (TSMC), Texas Instruments, etc. are looking to add capacity.

Semiconductors

- Semiconductors are materials which have a conductivity between conductors (generally metals) and nonconductors or insulators (such as most ceramics)
  They are driving the next phase of digital transformation under **Industry 4.0.**
- Semiconductors also known as integrated circuits or more commonly just chips, make electronic items smart. Made from a material, usually silicon, that "semi-conducts" electricity, the chip performs a variety of functions.
- **Memory chips,** which store data, are relatively simple and are traded like commodities. **Logic chips,** which run programs and act as the brains of a device, are more complex and expensive.
  These often carry names like Apple or Nvidia, but those companies are actually just the designers of the semiconductors, which are manufactured in factories called **foundries.**
- Semiconductor manufacturing is very complex and technology-intensive sector involving huge capital investments, high risk, long gestation and payback periods, and rapid changes in technology, which require significant and sustained investments.
- A factory also uses enormous amounts of water and electricity and is vulnerable to even the tiniest disruptions, whether from dust particles or distant earthquakes.

Reasons For Semiconductor Shortage

- **Stay-at-home shift:** Lockdowns increased growth in sales of laptops, home networking gear, webcams, monitors etc. Sales also jumped for home appliances, from TVs to air purifiers that now come with customized chips. This pushed chip demand beyond levels projected before the pandemic.

- **Fluctuating forecasts:** Early in the pandemic, automakers had underestimated how quickly the car sales would rebound and had reduced their capacity. Later in 2020, when they increased their manufacturing capacity, they could not procure adequate amount of chips, as chipmakers were stretched supplying computing and smartphone giants.

- **Stockpiling:** Around the middle of 2020, Huawei Technologies Co. — the Chinese smartphone maker that also dominates the global market for **5G networking gear** — began building up inventory to ensure it could survive U.S. sanctions against it.

  In response, other companies followed, hoping to grab share from Huawei, and China's chip imports climbed to almost $380 billion in 2020, up from about $330 billion the previous year.

- **Disasters:** A bitter cold in Texas in February led to power outages that shut semiconductor plants around the region. A plant in Japan that was a major provider of automotive chips was damaged by fire in March, disrupting production for months.

Details of Recently Approved Programme for Semiconductor Ecosystem

- **Semiconductor Fabs and Display Fabs**: It will give fiscal support of up to **50% of project cost** to eligible applicants to execute the projects.

  The Centre will work with state governments to establish **high-tech clusters** with requisite infrastructure in terms of land, semiconductor grade water, to set up at least two **greenfield** semiconductor fabrication and two display fabrication in the country.

- **Semi-conductor Laboratory (SCL)**: Ministry of Electronics and Information Technology (MeitY) will take required steps for modernization and commercialization of Semi-conductor Laboratory (SCL).

- **Compound Semiconductors**: The Scheme for setting up of Compound Semiconductors facilities in India shall extend fiscal support of 30% of capital expenditure to approved units. At least 15 such units of Compound Semiconductors and Semiconductor Packaging are expected to be established under this

scheme.

- **Semiconductor Design Companies**: The **Design Linked Incentive (DLI) Scheme** shall extend product design linked incentive of up to 50% of eligible expenditure and product deployment linked incentive of 6% - 4% on net sales for **five years**.

  ✓ Support will be provided to 100 domestic companies of semiconductor design for Integrated Circuits (ICs), Chipsets, System on Chips (SoCs), Systems & IP Cores and semiconductor linked design.
  ✓ C-DAC (Centre for Development of Advanced Computing), a scientific society operating under MeitY, will serve as the nodal agency for implementation of DLI scheme.

- **India Semiconductor Mission**: In order to drive the long-term strategies for developing a sustainable semiconductors and display ecosystem, a specialized and independent "India Semiconductor Mission (ISM)" will be set up. ISM will be led by global experts in semiconductor and display industry.

Benefits Of The Programme

- The programme comes at a time when companies are beginning to **look outside China** for electronics manufacturing -- an opportunity that India has been trying to use to its advantage.

- It will give an impetus to semiconductor and display manufacturing by facilitating capital support and technological collaborations.

- It will encourage research and innovation in the sector, boost manufacturing and strengthen India's technological prowess in these areas of strategic importance and economic self-reliance.

- It will attract ₹1.67 lakh crore (trillion) of investment and put an end to the country's reliance on imports to meet its semiconductor needs.

- It will also lead to creation of 35,000 direct and 1 lakh indirect jobs.

Way Ahead

- As 5G mobile networks increase — driving demand for **data-heavy video and game streaming** — and with many people working from home, the need for more powerful, energy-efficient chips will only grow.

- However, the success of programme in building a vibrant semiconductor industry will depend on factors other than just the amount of subsidies offered to investors.

- While subsidies can certainly attract businesses into investing in an industry, they are not sufficient or even necessary to attract investments. Investors care more about ease of doing business, which is influenced by the quality of institutions in a country.

- Some economists even argue that Governments just need to provide an environment that is conducive for doing business in order to attract investments. When a country has the right institutions, businesses will invest in any industry as long as it makes financial sense to do so.

Security Lapse during PM's Visit to Punjab

- In a major security lapse, PM Modi was stuck on a flyover for around 20 minutes on his way to Hussainiwala in Punjab.
- At Ferozepur, he was to lay the foundation stone of multiple development projects worth more than Rs 42,750 crore.
- As per MHA statement, PM proceeded to travel by road after **necessary confirmation of necessary security arrangements** by the DGP Punjab Police.

A Major Lapse In The Security Of The PM

- The convoy of PM has a high threat perception. Hence, a detailed security arrangement is made before PM travels to someplace.

- However, what unfolded on the flyover was considered as major lapse in the security of the PM in recent years.

- Officials at the Centre alleged that Punjab police had colluded with the so-called protesters. This was due to the fact that **only the cops were aware of the precise route to be taken by the PM**.

- They also contend that PM proceeded to travel by the road after getting necessary confirmation from the DGP of Punjab.

Steps Taken For Fixing The Accountability In Aftermath Of This Incident

- The Punjab government has constituted a high-level committee, under **Justice Mehtab Singh Gill (retd),** to probe into the matter.

- Ministry of Home Affairs had formed a *separate three-member committee* to enquire into "serious lapses" in security arrangements. The committee is led by Sudhir Kumar Saxena, Secretary (Security), Cabinet Secretariat.

- Centre is considering to use **Special Protection Group (SPG) Act** against Punjab Police officers. Section 14 of the SPG Act, 1988 makes the state government responsible for providing all assistance to SPG during the PM's movement.

ACCOUNTABILITY WILL BE FIXED: SHAH

10.25-11.05am: PM lands at Bhisiana airbase in Bathinda. Bad weather forces him to abandon copter ride. Instead, he takes road route to Hussainiwala village on Pak border to pay respect at National Martyrs' Memorial

The PM's guards secure the flyover on the Moga-Ferozepur highway

1.05pm: Convoy gets stuck for 15-20 mins on a flyover on Moga-Ferozepur highway due to farmers protesting against his visit. Convoy returns to Bhisiana. At 3.20pm, Modi takes off for Delhi from airbase

1.30-2.40pm: In PM's absence, BJP MP Hans Raj Hans, ex-CM Amarinder Singh address BJP rally in Ferozepur

> MHA has sought a detailed report on the security breach. Such **dereliction of security procedure** in PM's visit is totally unacceptable and accountability will be fixed
> —**Amit Shah,** Union home minister

There was **no security lapse, no situation of any attack or security threat** to the PM. There was a sudden change in PM's travel plan. Agitations happen ahead of polls. BJP should not politicise the issue
—**Charanjit Singh Channi,** Punjab CM

How Is PM's Security Planned

- Planning of the PM's security during any visit involves central agencies and state police forces.

- Broad guidelines are laid down in what is called the **SPG's Blue Book**.

- Three days before any planned visit, the SPG holds a mandatory **Advance Security Liaison (ASL)** with everyone involved in securing the event. This also includes _Intelligence Bureau Officials_ in the concerned state, _State Police Officials_ and the concerned _District Magistrate_.

- Once the meeting is over, an ASL report is prepared, based on which all security arrangements are made.

- The meeting discusses how the PM would arrive (by air, road or rail) and, once he lands, how he would reach the venue (generally by helicopter or road).

- The security of the venue — which involves aspects such as entry and exit, frisking of those coming to the venue, and placing of door frame metal detectors — is discussed. Even the structural stability of the dais is checked.

Different Layers of Security

- SPG only gives proximate security.
  When PM is travelling to any state, it is the responsibility of the state police to ensure overall security.
- They have the responsibility of intelligence gathering, route clearance, venue sanitisation and crowd management.
- Central intelligence agencies are responsible for providing inputs about any threat.
- However, it is the SPG that takes the final call on how the security is to be arranged.
  - The SPG never allows the PM's movement until the local police gives the go-ahead.
- State police are also supposed to conduct anti-sabotage checks and secure the route by placing not only men on the roads but also snipers on rooftops.
- The state police also provide a pilot that leads the PM's cavalcade. If he is likely to stay at a place, an SP-level officer is deputed as camp commandant to ensure security.
- During public meetings, rallies and road shows, apart from policemen, an SP is deputed to post men in plainclothes for security.

What Happens If Plans Change Suddenly?	What If There Are Spontaneous Protests?
• A *contingency plan is always made in advance*. That is why the weather report is taken into consideration. • If because of bad weather, the PM can't fly to the venue, then an alternative route by road is planned in advance, the route sanitised and security placed on the road even if the PM is supposed to fly. • If for any reason the route is found to be not clear, the state police do not give the go-ahead. The visit is cancelled.	• Elaborate planning is made in advance by the state police to thwart protests. • Generally, local intelligence has inputs on which groups are planning a protest and preventive action is taken. Physical and electronic surveillance is mounted to gather information on such surprises. • If there is a planned protest that cannot be stalled, then the route is avoided.

IRDAI Calls For Regulatory Powers Or New Body

With hospitals across the nation following different tariff structures, Insurance Regulatory and Development Authority of India (IRDAI) has proposed that either there must be a separate regulator for the healthcare segment or IRDAI must be allowed to regulate hospitals.

Issues related

Varying Tariffs

- Hospitals keep changing tariffs on a regular basis. There is *no body to regulate them on tariff structure* and grading.

- When Covid hit the country last year, patients were fleeced by some hospitals. IRDAI does not allow insurance companies to raise premium each year; though there is a 10-15% inflation of hospital charges at present.

- Even as the General Insurance Council — the representative body of 34 general insurers in India — had proposed uniform charges for Covid treatment, hospitals were charging different rates.

No Infrastructure to Regulate Hospitals

- IRDAI currently doesn't have the infrastructure to regulate hospitals.

- As healthcare is a state subject, it's going to be a tough proposition for IRDAI to regulate hospitals.

Individual Hospital Empanelment Process

- At present, health care schemes and private insurance have **individual hospital empanelment** process, which replicates various activities and contributes to inefficiency and duplication of processes.

- It is recommended to have common empanelment portal which can be utilised by all the schemes/insurance companies with standardised empanelment criteria and will be hugely beneficial with special focus on standard safety and quality parameters

Cost to Health Insurance Businesses

- If insurers continue to pay whatever the hospitals are demanding, the health insurance business will be in poor health in the long run. Already, the industry is experiencing a high number of claims.

General and Medical Inflation

- Even with increasing penetration, we will need to factor for general and medical inflation and given that medical inflation operates significantly higher than CPI inflation, a correction cycle from a pricing standpoint will be needed.

The joint working group of the **IRDAI and National Health Authority (NHA)** had proposed a unique common hospital registry, empanelment process, grading of hospitals and package cost harmonisation to promote the *standardisation and effective utilisation of health care infrastructure* under the insurance programme.

> IRDAI is a statutory body formed under an Act of Parliament, i.e., Insurance Regulatory and Development Authority Act, 1999 (IRDAI Act 1999) for overall supervision and development of the Insurance sector in India.

{For more about insurance, refer the topic 'NHA Estimates On Health Expenditure' in The Recitals – Dec' 2021}

Padhe Bharat

Union Education Minister launched a **100 days reading campaign** 'Padhe Bharat' in alignment with the **National Education Policy (NEP) 2020** which emphasises on promotion of joyful reading culture for children by ensuring availability of *age appropriate reading books for children in local/mother tongue/regional/tribal Language.*

- He reinforced that the habit of reading, if inculcated at an early age, helps in brain development and enhances imagination and provide a conducive learning environment for children.
- Campaign will focus on children studying in **Balvatika to Grade 8.** The reading campaign will be organised for 100 days (14 weeks) starting from 1st January 2022 to 10th April 2022.
- The campaign aims to have participation of all stakeholders at national and state level including <u>children, teachers, parents, community, educational administrators</u> etc.
- **One activity per week per group** has been designed with the focus on making reading enjoyable and build lifelong association with the joy of reading.
- This campaign has also been aligned with the vision and goals of **foundational Literacy and Numeracy mission.**
- **21st February,** which is celebrated as International Mother Tongue Day, has also been integrated with this campaign.
- This day will be celebrated with the activity of Kahani Padho Apni Bhasa Main (Reading story in own language) across the country by encouraging children to read in their mother tongue/local language.

International Mother Tongue Day

- UNESCO declared 21st February as International Mother Language Day in 1999 and the World has been celebrating the same since 2000.
- It commemorates a long struggle by Bangladesh to protect its mother language Bangla.
- It was suggested by Rafiqul Islam, a Bangladeshi living in Canada. He proposed the said date to commemorate the 1952 killings in Dhaka during the Bangla Language Movement.

Smart Cities and Academia Towards Action & Research (SAAR)

Ministry of Housing and Urban Affairs (MoHUA) has launched "Smart cities and Academia Towards Action & Research (SAAR)" program, a joint initiative of <u>MoHUA, National Institute of Urban Affairs (NIUA)</u> and <u>leading Indian academic institutions</u> of the country.

- Under the program, **15 premier architecture & planning institutes** of the country will be working with Smart Cities to document landmark projects undertaken by Smart Cities Mission.
- The documents will capture the learnings from best practices, provide opportunities for engagement on urban development projects to students, and enable real-time information flow between urban practitioners and academia.
- The first activity envisaged under SAAR is to prepare a compendium of **75 landmark** urban projects distributed **across 47 Smart cities** under the Smart City Mission. These 75 urban projects are innovative & multi-sectoral. The program marks the 75th anniversary of India's independence.
- The compendium (completed by June 2022) will act as a first point of reference for future research in the field, help disseminate learnings from projects under the Mission, act as a repository for Urban Projects and contribute to dissemination of best practices and peer-to-peer learning.
- The partner institutes documenting the projects include *inter alia* <u>*Indian Institute of Technology, Roorkee, Center for Environment Planning and Technology, Ahmedabad, Jamia Milia Islamia, Delhi, and School of Planning and Architecture, Bhopal.*</u>

Smart City Mission

- It is a Centrally Sponsored Scheme under MoHUA to drive economic growth and improve the quality of life of people by enabling local development and harnessing technology as a means to create smart outcomes for citizens.
- It focuses on sustainable and inclusive development and to look at compact areas, creates a replicable model which will act like a lighthouse to other aspiring cities.
- The Ministry of Urban Development has identified 24 key areas that cities must address in their 'smart cities' plan.
- Of these 24 key areas, 3 are directly related to water and 7 are indirectly related to water – Smart-metre management, leakage identification, preventive maintenance, and water quality modeling.

Strategy

Pan-city initiative in which at least one Smart Solution is applied city-wide. Develop areas step-by-step with the help of these three models:

Performance

Since the start of the Mission in 2015, the 100 Smart Cities have been developing a total of 5,151 projects with an investment of Rs. 2,05,018 crore

Retrofitting   Redevelopment   Greenfield

National Institute of Urban Affairs (NIUA)

- Located in New **Delhi,** it was established in **1976** as an autonomous body under Societies Registration Act.

- It is an institute for research, training and information dissemination in urban development and management.

- The Institute is supported by **Ministry of Housing and Urban Affairs**, Government of India, State Governments, urban and regional development authorities and other agencies concerned with urban issues

Azadi Ka Amrit Mahotsav

- Azadi ka Amrit Mahotsav is an embodiment of all that is progressive about India's socio-cultural, political, and economic identity.

- The official journey of "Azadi ka Amrit Mahotsav" commenced on **12th March 2021** which starts a 75-week countdown to our 75th anniversary of Independence and will end post a year on **15th August 2022.**

NEAT Initiative

Ministry of Education has announced a new **National Educational Alliance for Technology** (**NEAT 3.0**) to use technology for better learning outcomes in Higher Education.

- 12 Lakh NEAT ed-tech **free course coupons** worth Rs 253.72 crore were also provided to socially and economically disadvantaged students.

- The Union Minister has urged AICTE to integrate courses in NEAT programme with **skill India**. This will help in stimulating employability by finding opportunities in emerging areas of skill and prepare the youth for future.

- In 2019, the Ministry of Human Resource Development had announced the NEAT programme.

Key Points

Implementing Agency	Model of NEAT Scheme	Objective	Target Areas	Modus Operandi
• All India Council for Technical Education (AICTE).	• PPP model between Government and Ed-Tech companies of India	• To bring best **technological solutions** in education pedagogy on a single platform for the convenience of Economically and Socially weaker sections of society.	• Technology solutions using Artificial Intelligence for **customized learning or e-content** in niche areas having highly employable skills	• Government plans to distribute **free coupons** for an array of courses offered by ed-tech companies

Shared Parenting

Shared parenting is when children are brought up with the love and guidance of both parents following a separation. However, it is *not* an option in India

Best Interests of The Child

- India is a signatory to the United Nations Convention on Rights of the Child (UNCRC).

- The definition of "best interests of the child" has been incorporated from the UNCRC in the Juvenile Justice (Care and Protection of Children) Act, 2015.

- It means "the basis for any decision taken regarding the child, to ensure fulfilment of his basic rights and needs, identity, social well-being and physical, emotional and intellectual development"

Indian Laws Determining Custody of Children

Hindu Minority and Guardianship Act (HMGA),1956

It states that the natural guardian of a **Hindu minor boy** or **unmarried girl** shall be the **father and mother**, provided that custody of a minor who has not completed 5 years of age shall ordinarily be with mother.

However, HMGA **does not** contain any *independent, legal or procedural mechanism* for deciding **custody rights or declaring court-appointed guardians**.

Guardian and Wards Act of 1890 (GWA)

This deals with the appointment of a person as a 'guardian' to a child, both with respect to the **child & property**.

Child custody, guardianship and visitation issues *between parents* are determined under GWA, if a natural parent wants to be declared as an **exclusive guardian** to his/her own child.

Upon disputes between parents in a petition under GWA, read with HMGA, **guardianship and custody can be vested with one parent** with **visitation rights to other parent**.

Supreme Court Judgments	Legal Opinion on Shared Parenting
• In 2017, in **Vivek Singh v. Romani Singh**, Supreme Court highlighted the concept of Parental Alienation Syndrome underlining its "psychological destructive effects".	• The Law Commission of India Report in 2015, on Reforms in Guardianship and Custody Laws in India, recommended joint custody and shared parenting.
• In 2019, SC held in **Lahari Sakhamuri v. Sobhan Kodali** that the "best interests of the child" is wide in its connotation	• Report of **Justice Bindal Committee**, in 2018, also said that "best interests of the child" are of paramount importance in matters relating

• In 2022, SC in **Vasudha Sethi v. Kiran V. Bhaskar** held that Welfare of the child must get precedence over the parents' rights in a custody battle.	to child custody in view of the UNCRC.

Streets for People Challenge

Ministry of Housing and Urban Affairs (MoHUA) announced 11 winning cities for the **Streets for People Challenge** and 10 winning cities for the pilot stage of the **Nurturing Neighbourhoods Challenge.**

Streets for People Challenge	• It is a city-led **design competition** to develop a unified vision of streets for people in consultation with stakeholders and citizens. • Each city would launch their own design competition with specific details on site, timeline, and awards.
Nurturing Neighborhoods Challenge	• It is a **3-year initiative** that will support cities to develop, pilot and scale solutions that enhance the quality of life of <u>young children, their caregivers and families</u> in the public realm. • It will be open to all **smart cities**, other cities with **more than 5,00,000 population, and capitals of states and UTs** • Cities will receive technical assistance and help in capacity-building to Re-imagine parks and open spaces, Improve access to early childhood facilities, Create accessible, safe, walkable streets for young children and families.

Swachhata Start-Up Challenge

Ministry of Housing & Urban Affairs (**MoHUA**), in partnership with the Department of Promotion of Industry and Internal Trade (**DPIIT**) and French Development Agency (**AFD**) launched the Swachhata Start-Up Challenge under **Swachh Bharat Mission-Urban 2.0.** AFD will provide seed funding to the tune of **25 lakh rupees** and one year of customised support to each of the **10 selected start-ups**.

About

- Aim: To provide an impetus to innovative start-ups to come forward and drive catalytic transformation in sanitation and waste management sector.

- The Challenge invites solutions across four thematic areas viz.

social inclusion → **zero dump (solid waste management)** → **plastic waste management** → **transparency through digital enablement**

- With the appetite for risk and spirit of innovation at its core, the start-up space holds immense potential to revolutionise India's waste management sector.

- It is in line with Atmanirbhar Bharat and Make in India.

- This initiative comes at a time when France and EU are looking to work closely with India on the international stage to negotiate a global treaty on plastic pollution.

{For details about Swachh Bharat Mission-Urban 2.0 refer The Recitals – Oct' 2021}

Bina-Panki Multi-product Pipeline

- Prime Minister has recently inaugurated the Bina-Panki **multi-product pipeline**.

- The 356-km pipeline, from ***Bina Refinery in Madhya Pradesh to Panki in Kanpur***, to be operated by Bharat Petroleum Corporation Limited (BPCL), has been set up at the cost of Rs 1,524 crore.

- It has a capacity of 3.5 million metric tonne per annum and will strengthen the supply of petroleum products in *eastern and central UP, southern Uttarakhand and northern Bihar.*

- The project also includes augmentation of tankage capacity and construction of Rail Loading Gantry at Panki terminal.

- Pipelines are safe & environment friendly mode of transporting large quantity of petroleum products in an economical and reliable manner, reducing carbon foot prints by avoiding tank wagon and tank lorry movements.

- For instance, the Bina-Panki pipeline will also ***reduce carbon emission by around 68%*** in product transportation.

First Advance Estimates released

- The Ministry of Statistics and Programme Implementation (MoSPI) released the First Advance Estimates (FAE) for current financial year (2021-22).
- The FAE are based on **Benchmark-Indicator method** i.e. "the estimates available for the previous year (2020-21 in this case) are extrapolated using relevant indicators reflecting the performance of sectors.

  ✓ **Extrapolation** is a process of <u>estimating the values of a particular metric by assuming that existing trends will continue</u>.

First Advance Estimates (FAE)

- o The FAE, which were first introduced in 2016-17, are typically published at the end of the first week of January. They are the "first" official estimates of how GDP is expected to grow in that financial year.
- o But they are also the "advance" estimates because they are published long before the financial year (April to March) is over.
- o Even though the FAE are published soon after the end of the third quarter (October, November, December), they do not include the formal Q3 GDP data, which is published at the end of February as part of the Second Advance Estimates (SAE).
- o Since the SAE will be published next month, the Union Finance Ministry uses the FAE to decide the next financial year's Budget allocations.

▶ Key Takeaways From FAE

GDP Growth and High Inflation

- For FY2021-22, while real GDP (GDP calculated using **constant 2011-12 prices**) will grow by 9.2%, nominal GDP (GDP calculated using **current market prices**) will grow by 17.6%. Last financial year, FY21, the GDP had contracted by 7.3%.

- **Real GDP = Nominal GDP — Inflation Rate**. Thus, the difference between the two growth rates is essentially a marker of inflation (or the rate at which average prices have increased in this financial year).

GDP & GVA

Both total GDP and Gross Value Added (GVA) will recover to cross pre–Covid levels

— GVA   — GDP

in Rs Lakh Crore (constant prices)

160

105

120

135

148

80

97

40

2014–15   2021–22
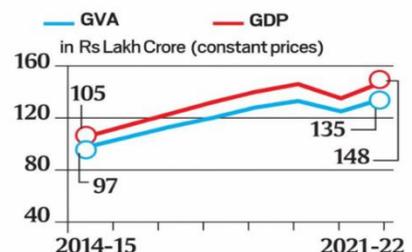
Low Private Consumption

- Private consumption demand, investments in the economy, and government expenditures are the three main contributors of GDP.

- Projections show that the latter two are expected to get back to the pre-Covid level, but the first factor will continue to stay low.

- Private consumption expenditures typically account for more than 55% of all GDP. Thus, such weak levels of private demand will make it difficult to sustain economic growth in the months and years ahead.

GDP=	• private consumption + gross investment + government investment + government spending + (exports-imports).
GVA=	• GDP + subsidies on products - taxes on products.

National Technical Textiles Mission

- The Ministry of Textiles has recently cleared 20 strategic research projects worth Rs 30 crores in the areas of Specialty fibres and Geotextiles, under the flagship programme National Technical Textiles Mission.

- Technical textiles are textiles materials and products manufactured primarily for technical performance and functional properties rather than aesthetic characteristics.

- They have application in several sectors including infrastructure, water, health and hygiene, defence, security, automobiles, aviation, etc.

- Based on usage, there are **12 technical textile segments**; Agrotech, Meditech, Buildtech, Mobiltech, Clothtech, Oekotech, Geotech, Packtech, Hometech, Protech, Indutech and Sportech.

About NTTM

- NTTM was approved in 2020, with an implementation period from FY 2020-21 to 2023-24. The total outlay of the mission is Rs 1480 crores.

- The aim of the mission is to position India as a global leader in Technical Textiles. It has a target to take domestic market size of technical textile sector to **$ 40-50 billion by the year 2024** with an average growth rate of 15-20% per annum.

- It also supports the Make in India initiative promoting domestic manufacturing of related machinery and equipment.

- The mission includes the following four components:

Research, Innovation and Development → Promotion and Market Development → Export Promotion → Education, Training, Skill Development

{For more on "PLI scheme on textile" refer The Recitals- Sept' 2021}

Fund Infusion in IREDA

The Cabinet Committee on Economic Affairs has recently approved an equity infusion of Rs.1500 crore in Indian Renewable Energy Development Agency Limited (IREDA).

Benefits of Equity Infusion

- It will help in employment generation of approximately 10,200 jobs-year and CO_2 equivalent emission reduction of approximately 7.49 million tonnes CO_2/year.

- It will enable IREDA to:

- ✓ Lend around **Rs. 12,000 crores** to the renewable energy (RE) sector, thus facilitate the debt requirement of RE of additional capacity of 3500-4000 MW.
- ✓ Enhance its net worth which will help it in additional RE financing, thus contributing to the government's targets for RE.
- ✓ Improve the <u>capital-to-risk weighted assets ratio</u> (CRAR) to facilitate its lending and borrowing operations.

IREDA

- Set up in 1987, IREDA is a mini-ratna company under the administrative control of Ministry of New and Renewable Energy.

- It works as a specialised **non-banking finance agency** for the Renewable Energy (RE) sector.

- It plays a key role in the RE project financing which gives confidence to the FIs/banks to lend in the sector.

Saa₹thi App

- Securities and Exchange Board of India (SEBI) has recently launched **Saa₹thi** – a mobile app on investor education.

- In the recent past, there has been an <u>increase in individual investors</u> in the securities market, and a large proportion of this trading is done through mobile phones. According to NSE (National Stock Exchange) data, the share of Individual investors increased to 45% in 2021 from 39% in 2020.

- The new app aims to <u>empower investors with accurate knowledge</u> about the securities market.

- It will be helpful in easily accessing basic concepts of the market, KYC Process, trading and settlement, mutual funds, recent market developments, investor grievances redressal mechanism, etc.

SEBI

- SEBI is the <u>regulatory body for securities and commodities</u> market in India. Its basic function is to <u>protect the interests of investors</u> and promote the development of securities market.

- It was established in 1988 as a non-statutory body. Later, in **1992**, SEBI was given **statutory powers**, through the SEBI Act, 1992.

- **Composition:**
  - o Chairman who is nominated by the Union Government of India.
  - o Two members, i.e., Officers from the Union Finance Ministry.
  - o One member from RBI
  - o The remaining five members are nominated by the Union Government of India, out of them at least three shall be whole-time members.

World Employment and Social Outlook Trend 2022

The International Labour Organization (ILO) has recently released the **World Employment and Social Outlook Trends 2022**.

Highlights Of The Report

- It warns of slow and uncertain recovery, with uneven labour market prospects across the globe, due to the pandemic. Also, wider economic risks such as accelerating inflation may play a role.

- It estimates the equivalent of around 52 million fewer jobs in 2022 versus pre-Covid levels. Overall, around 207 million people are estimated to be unemployed in 2022.

- Disruptions are set to continue into 2023 when there will still be around 27 million fewer jobs.

- It also cautions that the overall impact on employment is significantly greater than represented in these figures because many people have left the labour force.

Rising Inequality

- Globally, the world is witnessing rising inequality and poverty, driven by disruptions to the labour market. It is estimated that in 2020, an additional 30 million adults fell into extreme poverty (living on less than $1.90 per day in purchasing power parity) while being out of paid work.

- Women have been worse hit by the labour market crisis than men and this is likely to continue. The closing of education and training institutions will have long-term implications for young people, particularly those without internet access.

- These differences are deepening inequalities **within and among countries** and weakening the economic, financial and social fabric of almost every nation, regardless of development status.

- This damage is likely to require years to repair, with potential long-term consequences for labour force participation, household incomes and social and possibly - political cohesion.

Way Ahead

There is need for a broad-based labour market recovery. To be sustainable, this recovery must be based on the principles of decent work — including health and safety, equity, social protection and social dialogue.

International Labour Organization (ILO)

- Founded in 1919 as a part of **Treaty of Versailles**, the ILO is a specialized agency of United Nations with a mandate to advance **social and economic justice** through setting international labour standards.

- It brings together governments, employers and workers representatives of **187 member States**, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.

- Headquartered in **Geneva**, the ILO received the **Nobel Peace Prize in 1969**, for improving fraternity and peace among nations, pursuing decent work and justice for workers, and providing technical assistance to other developing nations.

Offline Digital Payments

- RBI recently issued a framework to facilitate *small value digital payments in offline mode.* An **offline digital payment** means a transaction that <u>does not require internet or telecom connectivity</u>.

- Under the offline mode, payments can be carried out **face-to-face** (proximity mode) using any channel or instrument like cards, wallets, and mobile devices. These transactions will **not** require an **additional factor of authentication (AFA).**

- Such transactions through cards shall be allowed without the need of switching on contactless transaction channel.

- Since the transactions are offline, alerts (by way of SMS and/or e-mail) will be received by the customer after a time lag.

- Transactions are subject to a <u>limit of Rs 200 per transaction and an overall limit of Rs 2,000 for all transactions</u> until the balance in the account is replenished. Balance replenishment can only occur in an online mode with AFA.

- The offline mode of payment can be enabled only after obtaining <u>specific consent of the customer</u>.

- Offline payments will be covered under the provisions of <u>RBI's limited customer liability</u> circulars and will have recourse to the <u>Reserve Bank Integrated Ombudsman Scheme for grievance redress</u>.

Benefits

- The absence of — or erratic — internet connectivity, especially in remote areas, is a major impediment for adoption of digital payments.
- Thus, offline transactions will give a <u>push to digital transactions in areas with poor or weak internet or telecom connectivity</u>, particularly in semi-urban and rural areas.
- It will also improve the payments ecosystem and <u>enable further growth of digital payments</u> across the country especially in rural areas.

TRIFED Initiatives

Recently, the Ministry of Tribal Affairs has launched several noteworthy initiatives of TRIFED. These are --

Formation of 14 Honey Farmer Producer Organizations (FPOs)

- Beekeeping activity has been recognized as one of the important activities by government to achieve **Sweet Revolution** also known as **Honey Mission or Mithi Kranti**.
  - ✓ Last year a central scheme titled "Formation and Promotion of 10,000 FPOs" was launched to ensure economies of scale for farmers over the next 5 years.
  - ✓ The scheme lays special emphasis **on beekeeping** with the formation of **100 FPOs** in identified potential Districts/States.

- The **National Bee Board (NBB)**, under the **National Beekeeping & Honey Mission (NHBM),** will develop the scientific bee-keeping value chain for honey across **100 clusters** in the country.

- The Ministry of Agriculture had appointed **TRIFED as the implementing agency**. Under this, the Tribal Affairs Ministry initiated the formation of **14 Honey FPOs alongside NAFED** (National Agricultural Cooperation Marketing Federation of India Ltd) and **NDDB** (National Dairy Development Board).

About National Beekeeping & Honey Mission (NBHM)
- NBHM is a Central Sector Scheme, approved under AatmaNirbhar Bharat announcement, and implemented through National Bee Board (NBB).
- NBHM aims for the overall promotion & development of scientific beekeeping in the country to achieve the goal of 'Sweet Revolution' which is being implemented through National Bee Board (NBB).
- Under the scheme, main thrust is given on awareness, capacity building/trainings, focus on women empowerment through beekeeping and setting up of requisite infrastructure facilities

- **FPO:** It is an association or group of farmers formed to utilise economies of scale in production and marketing of agricultural and allied sectors. It is a legal entity incorporated under the Companies Act or the Cooperative Societies Act of the concerned States.

TRIFED Van Dhan Chronicle

- The chronicle gives an in-depth illustration of the activities undertaken by TRIFED which has impacted the life of almost 16 lakh tribals.
- These include the introduction of **Minimum Support Price (MSP)** for select forest produces, training imparted, value addition, new product lines developed, new ideas for packaging and marketing implemented, achievements so far and future plans.

Tribal Samvaad Network

- **UNICEF and TRIFED** have joined hands to launch the "Tribal Samvaad network" – a Tribal network for social and behaviour Change.
- This vast network includes more than 90 million tribals, 52,976 Van Dhan SHGs, 3110 Van Dhan Vikas Kendras (VDVK) Clusters, market associations, haat bazaars and the Tribes India network and the State agencies.

- Moreover, TRIFED and UNICEF will further implement multiple channels and communication strategies and tools for the economic and social empowerment of tribal communities.

MIS Portal

- An MIS Portal for **MSP for Minor Forest Produces** was launched which is a dashboard for the authorised users of Ministry of Tribal Affairs and TRIFED.

- The portal will ensure ready and online availability of procurement-related data for analysis as well as fast and effective decision making. This will ensure transparency and efficiency evaluation of different states and districts.

Other Bee Keeping initiative

Apiary on Wheels: It is a unique concept designed by the Khadi and Village Industries Commission (KVIC) for the easy upkeep and migration of Bee Boxes having live Bee colonies.

Cropland Expansion

- According to a study published in the reputed journal Nature Food, cropland area across the world increased **9%** and cropland net primary production (NPP) by **25%** from 2003-2019.

- The analysis was performed in four parts during 2000-2003, 2004-2007, 2008-2011, 2012-2015 and 2016-2019.

- The report defined **cropland** as '*land used for **annual and perennial** herbaceous crops for human consumption, forage (including hay) and biofuel'*.

  ✓ Perennial woody crops, permanent pastures and shifting cultivation are excluded from the definition.

- **NPP** is defined as the difference between the energy fixed by autotrophs and their respiration, and it is mostly equated to increments in biomass per unit of land surface and time.

  ✓ An **autotroph** is an organism that can produce its own food using light, water, carbon dioxide, or other chemicals.

Key Points

- In 2019, the cropland area was 1,244 million hectares (mha). But **49% of new cropland** area replaced **natural vegetation and tree covers**, indicating a conflict with the sustainability goal of protecting terrestrial ecosystems.

- The growth was primarily due to agricultural expansion in Africa and South America. The largest proportions of natural vegetation conversion to croplands (excluding dryland irrigation) were found in Africa, Southeast Asia and South America.

- The global population increased by 21% from 6.4- 7.7 billion (2003-2019). Therefore, global per capita cropland area decreased by 10% to 0.16 ha per person in 2019 from 0.18 ha per person in 2003.

- But the **per capita annual cropland NPP** increased by **3.5%** as a result of intensified agricultural land use.

Issues

- Cropland expansion is a major factor in forest loss, which comes in conflict with United Nations' Sustainable Development Goal 15 (SDG 15) that aims to stop deforestation and degradation of natural habitats.

- FAO's Estimation: If current trends hold, by 2050 the world's arable land **will increase** by some 70 million hectares, and much of the new farmland will be in areas that are currently forested.

Way Ahead

- Changes in total and per capita mapped cropland area from 2003 to 2019 demonstrate the variability of national responses to the need for increased food production to feed a growing population.

- Therefore, countries should adopt practices to improve the productivity of existing croplands and engage in sustainable farming to prevent deforestation and the consequent negative effects.

Increasing Trade Deficit With China

- India's bilateral trade with China grew by 44% to **$125.7 billion** in the 2021. This is despite government efforts to reduce India's dependence on Chinese imports amid continuing tension along the border and India's emphasis on self-reliance.

- China was **India's second largest trading partner** in the April-November period, after the **US.** UAE, Saudi Arabia and Iraq and Hong Kong were other top trading partners.

- Furthermore, **growth** in India's trade with other key trading partners including the US, UAE and Australia was even higher than the **growth** in trade with China.

Trade Highlights With China

- **India's imports** from China rose to $97.5 billion in 2021, up 46.1% from $66.7 billion in 2020 (which was impacted by Covid-19 related restrictions) and up 30.3% from 2019 (which was not impacted by pandemic).

- **Key imports** include smartphones, components for smartphones and automobiles, telecom equipment, plastic and metallic goods, active pharmaceutical ingredients (APIs), and other chemicals.

- **India's exports** to China grew to $28.1 billion in 2021, up 34.9% from $20.9 billion in 2020, 56.5% higher than exports in 2019.

- Raw material exports constitute a significant portion of India's outbound trade with China with iron ore, organic chemicals and cotton among key export items. Other key exports to China include iron and steel, seafood and engineering goods.

Analysis

- The sharp increase in imports has pushed **India's trade deficit with China** to **$69.4 billion in 2021**, up from $45.9 billion in 2020 and $56.8 billion in 2019. This widening trade deficit is a cause for concern.

- Moreover, **India's export basket comprises mainly primary goods** while imports from China are dominated by **value added items.** Growth in imports of finished items such as toys, electronics, or furniture, which India could be manufacturing in India, is not a good dependency.

- Among the reasons for the rising imports are a recovery in domestic demand for finished products from China and an industrial recovery.

- Growth in India's exports worldwide has also increased the need for many **crucial intermediate inputs.**

- Furthermore, disruptions elsewhere have led to greater sourcing from China in the short-term, for instance in the case of coking coal previously sourced from Australia and Indonesia.

- However, acquiring new intermediate goods, is a positive development as it shows growth in manufacturing in India and highlights the need for new inputs to match the global demand for a finished Indian product.

Inequality Kills Report

Oxfam has recently released a report titled '**Inequality Kills**', which highlights the growing inequality across the world.

Highlights Of The Report

- As per the report, inequality is not an abstract theory but it is a form of *institutionalised violence against poorer people.*

- The pandemic has increased economic inequalities across the world. <u>For 99% of the global population, incomes have fallen</u> and <u>over 160 million more people have been forced into poverty</u>, while the **ten richest people doubled their fortunes** since the start of the pandemic.

- Such inequality is contributing to the death of at least 21,000 people a day - or **one person every four seconds** - whether through hunger or lack of access to life-saving healthcare.

- Inequality is also at play in the climate crisis, with the **world's richest 1% emitting more than twice as much CO_2 as the poorest 50% of the world**.

- Women, ethnic minorities and developing countries have been the hardest hit by growing inequality during the COVID-19 pandemic.

Gender Inequality

- Lockdowns led to an increase in violence against women worldwide. Around 13 million women have not returned to workforce and women lost $800 billion in earnings in 2020. Furthermore, 20 million girls are at risk of losing access to education.

- Meanwhile, 252 men have more wealth than all 1 billion women and girls in Africa, Latin America and the Caribbean, combined. This means that the goal of gender equality has suffered a huge set back which will take at least 135 years to correct.

- In effect, women who were already unequal before the pandemic are now more unequal because of increased economic inequality.

Indian Scenario

- The collective wealth of India's 100 richest people hit a record high of Rs 57.3 lakh crore (USD 775 billion). In the same year, the share of the bottom 50% of the population in national wealth was a mere 6%.

- During the pandemic (March 2020 to November 30, 2021), the wealth of Indian billionaires increased from Rs 23.14 lakh crore (USD 313 billion) to Rs 53.16 lakh crore (USD 719 billion).

- More than 4.6 crore Indians, meanwhile, are estimated to have fallen into extreme poverty in 2020, nearly half of the global new poor.

- Increase in indirect tax (for e.g. on fuel) and reduction in corporate tax (from 30% to 22%) led to a situation where poor, marginalised and the middle class paid high taxes despite going through the pandemic, while the rich made more money without paying their fair share.

Recommendations

- Tax the **new wealth** made since the start of the pandemic through <u>permanent wealth and capital taxes.</u>

- Invest the trillions that could be raised by these taxes in progressive spending on universal healthcare and social protection, climate change adaptation, and gender-based violence prevention and programming.

- Tackle sexist and racist laws that discriminate against women and racialized people, and create new gender-equal laws/policies to uproot violence and discrimination.

- Define policies that will ensure women, racialized and other oppressed groups are represented in all decision-making spaces.

- End laws that undermine the rights of workers to unionize and strike, and set up stronger legal standards to protect them.

- Waive intellectual property rules over COVID-19 vaccine technologies to allow more countries to produce safe and effective vaccines to bring an end to the pandemic.

Oxfam

- It is a British founded **confederation of 21 independent charitable organisations** focusing on the alleviation of **global poverty**.

- It addresses the structural causes of poverty and related injustice and works primarily through local accountable organizations, seeking to enhance their effectiveness.

- In the year 2000, Oxfam adopted the **rights-based approach** for all the work of Confederation and its partners. It has adopted the following aims to express these rights in practical terms:

  ✓ **Right to a sustainable livelihood**
  ✓ **Right to basic social services**
  ✓ **Right to life and security**
  ✓ **Right to be heard**
  ✓ **Right to an identity**

Cage Aquaculture

- Ministry of Fisheries, Animal Husbandry and Dairying has recently organized a webinar on **Cage Aquaculture in Reservoir: Sleeping Giants**.

- The webinar emphasized on the need for promotion of cage aquaculture in reservoirs of the country by following good management practices and providing support services.

- It also designated the *investment targets* for promoting cage aquaculture under the flagship scheme *Pradhan Mantri Matsya Sampada Yojana (PMMSY).*

What Is Cage Aquaculture

- Cage aquaculture involves the *growing of fishes in existing water resources while being enclosed in a net cage which allows free flow of water.*

- It is an aquaculture production system made of a *floating frame, net materials and mooring system* (with rope, buoy, anchor etc.) with a round or square shape floating net to hold and culture large number of fishes and can be installed in reservoir, river, lake or sea.

- There are **4 types of fish-rearing cage** viz. fixed cages, floating cages, submerged cages and submersible cages.

Need For Cage Aquaculture

- Many small or limited resource farmers are looking for alternatives to traditional agricultural crops. Aquaculture appears to be a rapidly expanding industry and it offer opportunities even on a small scale.

- Factors such as increasing consumption of fish, declining stocks of wild fishes and poor farm economy has increased interest in fish production in cages.

Advantages

- Farming of fish in an existing water body removes one of the biggest constraints of fish farming on land, ie. the need for a constant flow of clean, oxygenated water.

- Cage farms are positioned to utilize natural currents, which provide the fish with oxygen and other appropriate natural conditions.

- Suitable locations in Indian's long coastline, vast brackish water areas available in coastal states and other underutilized water bodies can be better utilized by adopting cage culture.

- Due to the high production attainable in cage culture system, it can play a significant role in *increasing the overall fish production in India.*

- Economically, cage culture is a *low impact farming practice with high returns and least carbon emission activity.*
- Leads to *generation of job opportunities* for unemployed youth and women and *additional income* for fishers during closed seasons.

Disadvantages

- Feed must be nutritionally complete and kept fresh.
- *Incidence of disease* can be high and diseases may spread rapidly.
- Accumulation of unused feed and excreta will lead to *water pollution as well as eutrophication*.
- *Predation* by aquatic mammals and birds and overcrowding of aquatic organisms in cages and navigation issues.

Pradhan Mantri Matsya Sampada Yojana (PMMSY)
- Launched On 10th September 2020   - During the period 2020-2021 to 2024-2025, an estimated investment of **Rs. 20,050 crores** are going to be done by the Government for this scheme. Out of which Rs 12340 crores is proposed for beneficiary-oriented activities in Marine, Inland fisheries and Aquaculture, and about Rs. 7710 crores for Fisheries Infrastructure.   - The **major aim** of the government behind the scheme is ✓ Enhancing fish production by an additional 70 lakh tonne till 2024-25, ✓ Increasing fisheries export earnings to Rs.1,00,000 crore, ✓ Doubling of incomes of fishers and fish ✓ Reducing post-harvest losses from 20-25% to about 10% ✓ Generation of additional 55 lakhs direct and indirect gainful employment opportunities in the fisheries sector and allied activities farmers,

Drone Use in Agriculture

- The Ministry of Agriculture and Farmers Welfare has recently amended the guidelines of "**Sub-Mission on Agricultural Mechanization" (SMAM)** to increase the use of drones in agriculture.
- SMAM was launched in **2014-15** to increase the reach of farm mechanization to *small and marginal farmers* and in *difficult areas* where farm power availability is low.
- The financial aid and grants shall be applicable till 31st March 2023.

Incentives Announced

- **Grants up to 100%** of the cost of an agriculture drone or Rs. 10 lakhs, whichever is less, for the purchase of drones. This 100% grant will be applicable for drones purchased *only* by Farm Machinery Training & Testing Institutes, ICAR institutes, Krishi Vigyan Kendras, and State Agriculture Universities for large-scale demonstrations of this technology on farmers' fields.
- **Farmers Producers Organizations (FPOs)** would be eligible to receive grants of up to 75% of the cost of agriculture drones for their demonstrations on the farmers' fields.
- **Demonstration Purpose:** A contingency expenditure of **Rs. 6,000 per hectare** would be provided to implementing agencies that do not wish to purchase but **hire drones** for demonstrations from Custom Hiring Centres (CHCs), Hi-tech Hubs, Drone Manufacturers, and Start-Ups.
    - ✓ CHCs are units comprising of <u>farm machinery and equipment</u> meant for custom hiring by farmers. Its objective is to supply of farm implements to small, marginal and poor farmers at **subsidized rates** on hire.

- To provide agricultural services via drone application, existing CHCs set up by Cooperative Society of Farmers, FPOs, and rural entrepreneurs would offer **40% of the basic cost** of drone and its attachments, or Rs. 4 lakhs, whichever is less, as financial assistance for drone purchase.

- **Rural entrepreneurs** must have passed the <u>class tenth examination or its equivalent</u> from a recognized Board and should have a remote pilot license.

- **Agriculture graduates** establishing CHCs would be eligible for a grant of up to Rs. 5 lakhs or 50% of the basic cost of the drone and its attachments.

Benefits

- The subsidized purchase of agriculture drones for CHCs/Hi-tech Hubs will lower the cost of the technology, resulting in **widespread adoption**. This would make drones more accessible to the general public while also significantly encouraging domestic drone production.

- Drones have a variety of features, such as multi-spectral and photo cameras, and can be used in **many aspects of agriculture**, such as monitoring crop stress, plant growth, predicting yields, and delivering pesticides, fertilizer, and water.

- They can be used to analyze the health of any vegetation or crop, as well as field areas infested with weeds, diseases, and pests.

- Drones help assess precise amounts of chemicals needed to combat infestations lowering the overall cost for the farmer.

Statehood Demand by Puducherry

Chief Minister of Puducherry has demanded to grant statehood for the Union Territory of Puducherry. It is believed that statehood is important for survival of the region.

Reason Behind Demand For Statehood

- The government in Puducherry claims that they are unable to generate employment potential by inviting more industries.

- There is a limitation in creating tourism infrastructure and there are developmental halts due to its status as a UT.

Background

When the Constitution of India was adopted in 1949, the Indian federal structure included:

- **Part A:** Former British India provinces that had a Governor and a legislature.

- **Part B:** The former Princely States that were governed by a Rajpramukh.

- **Part C:** Chief Commissioners' provinces & some princely states that were governed by Chief Commissioner.

- **Part D:** Territory of Andaman and Nicobar Islands that was governed by a Lieutenant Governor who was appointed by the Central Government.

After the States Reorganisation Act of 1956, Part C and Part D states were combined into a single category of 'Union Territory'. The concept of the UT was added by the Constitution (Seventh Amendment) Act, 1956. Puducherry was transferred to India from French in 1962. It was formed as UT in the same year.

Constitutional Provision

- The Indian constitution empowers the union government to create new states out of existing states or to merge one state with another.

- As per **Article 2** of the Indian Constitution, ***Parliament may by law*** admit into the Union, or establish, new States on such terms and conditions.

- **Article 3** of the constitution provides union government power to form a state, increase or decrease the size of any state and alter the boundaries or name of any state.

Union Territory

India currently has eight Union territories. Union Territories are administered by the Lieutenant Governors appointed by President. Puducherry, Jammu and Kashmir, and Delhi are exceptions as they have elected legislature.

Pondicherry (now Puducherry) was formed out of the **four former colonies** of French India:

- **Puducherry and Karaikal** along India's southeastern Coromandel Coast, **Yanam,** farther north along the eastern coast, and **Mahe**, lying on the western Malabar Coast, surrounded by Kerala state.

- It originated as a French trade centre in 1674, when it was purchased from a local ruler.

- The colony of Pondicherry was the scene of frequent fighting between the French and Dutch in the late 17th century, and it was occupied several times by British troops. However, it remained a French colonial possession until it was transferred to India in 1962.

The Assam Cattle Preservation Act, 2021 was made more stringent through an amendment in Winter Session of the Assam Assembly.

Background

The legislation has been passed in August 2021 replacing Assam Cattle Preservation Act, 1950. Assam cattle Preservation 1950 lacked sufficient legal provisions to regulate the slaughter, consumption and transportation of cattle.

Objective

1. To check cattle smuggling to Bangladesh, prohibits interstate transport of cattle to and from Assam without valid documents.

2. To remove certain prevailing restrictions with the aim of facilitating the utilization of cattle for animal husbandry and agricultural purposes.

Provisions In Amendment

1. The original legislation had prohibited the inter-district movement of cattle within Assam without valid documents.

   The amendment *allows movement of animals from one district to another*, provided these do not border Bangladesh & those transporting the cattle are registered under the Animal Husbandry and Veterinary Department, having permits to transport the cattle for bonafide agricultural or animal husbandry purposes or for trade.

2. The amendments *empower the police to enter the house of an accused, search and seize properties* if they have a "prima facia reason to believe" that the properties have been acquired in the last six years with money earned from the illegal cattle trade.

3. It allows for the sale of seized vehicles, boats and vessels through "*public auction*" after being produced before the appropriate court.

Other Major Provisions of Act

- **Bars sale and purchase of beef or beef products** in areas "predominantly inhabited by Hindu, Jain, Sikh and other non-beef-eating communities", or "within a radius of 5 km" of any temple or sattra (Vaishnavite monasteries) and any other institution as may be prescribed by the authorities. However, exemptions might be granted for certain religious occasions.

- **"Fit for slaughter" certificate**: It prohibits slaughter of a cow under any circumstances. Other cattle can be slaughtered subject to a "fit for slaughter" certificate. It is issued by registered veterinary officer of a particular area only if he believes that the bovine, not being a cow, is over 14 years of age. A cow, heifer or calf may be slaughtered only if it is permanently incapacitated.

- **Punishment**: All offences under this new legislation are *cognizable and non-bailable*. It provides for a minimum jail term of 3 years (extendable up to 8 years) and a Rs 3 lakh fine (with the upper limit Rs 5 lakh). For repeat offenders, the punishment will be doubled.

Concern With The Amendment

1. Disproportionate power in the hands of police.

2. It can lead to difficulties in the movement of cattle to the entire north-eastern region of India.

3. Ambiguity pertaining to 5 KM: Temples can be created anywhere and then regulating this pointer will create chaos and law and order problems.

4. Increasing Polarisation: Such laws may create more partisan precedents leading to more communal conflicts

5. This amendment is being criticised for being unconstitutional as it is mentioned in **article 301** of the constitution that allows freedom of trade and commerce throughout the territory of India and restriction on such transport as in this law requires assent from the president of India.

State governments should strike balance of Freedom of trade and business (article 19) and religious sentiments.

India's Oldest Dam Needs Repair

According to CAG report, **Gandhi Sagar dam on Chambal River in Madhya Pradesh** needs immediate attention. Problems like non-functioning instruments, irregular checks and clogged drains are reasons of plaguing the dam for years.

Issues With The Dam As Highlighted In Report

- Erratic rainfall in recent years has left the dam vulnerable as the dams are very old and built according to rainfall pattern.

- Storage capacity of dam reduced as the dam is aging.

- State dam safety organisation did not comply with the recommendation of Central Water Commission and Dam Safety Pane on remedial measures.

About large dams

- India has currently 5745 large dams and is third in world after China and USA.

- 75% of dams are more than 20-year-old.

- Most of dams are constructed and maintained by states. Some bigger dams are managed by autonomous bodies such as Bakhra Beas management board for Bakhra-Nangal project.

Gandhi Sagar Dam

- It is one of the five water reservoirs of national importance.

- It was constructed in 1960 to provide drinking water to several districts of Rajasthan and generate 115 megawatts of electricity.

- It has been breached several times in recent years, causing flooding in downstream areas.

Dam safety bill was recently passed in parliament. (**For details, refer The Recitals- Dec' 2021**)

Language Of Courts In India

Recently Gujarat High Court has asked a journalist facing contempt of court proceedings to speak only in English. English is the language of higher judiciary.

Constitutional Provision

- Constitution recognises English as primary language of Courts.

- **Article 348 (1)(a)** says that unless Parliament by law provides otherwise, all proceedings before the Supreme Court and in every High Court shall be conducted in English.

- **Article 348 (2)** states that Governor of state may with the previous consent of the President, authorise the use of Hindi or any other Language used for any official purpose, in proceeding of the High Court. Uttar Pradesh, Bihar, Rajasthan and Madhya Pradesh have authorised the use of Hindi language in proceedings.

Reason for Use of English Language

- **Link Language:** As India is diverse country, Judges and lawyers come from different part of country. It will be impossible to discharge their duty for judges if they do not understand regional language. English has become link language in the integrated judiciary system

- **Uniformity**: At present, the judicial system in India is well developed, integrated and uniform throughout the country.

- **Easy Access**: Lawyers as well as the judges have the benefit of easy access to the views of other high courts on similar legislations and other matters of law and constitution.

- **Seamless Transfers:** Presently, the judges from one high court are transferred to other high courts seamlessly.

- **Unified Structure:** This has given a unified structure to the Indian judicial system. The hallmark of any robust legal system is that the law should be certain, precise and predictable.

Background Post-independence

- **Article 343** provides that official language of the **Union** shall be **Hindi in the Devanagari** script.

- However, it mandated that the English language will continue to be used for all **official purposes** of the **Union** for **15 years** from the commencement of the Constitution of India.

- It further provides that the **President** may, during the said period, by order authorise the use of the Hindi language for any official purpose of the Union, other than the English language.

Official Languages Act 1963

- It makes no mention of the Supreme Court, where **English is the only language** in which proceedings are conducted.

- It empowers the Governor of a state to, with previous consent of the President, authorise the use of **Hindi/official language of the state**, in addition to English, for the purpose of any judgement, decree or order passed by the High Court of that state.

- It further provides that where any judgement/decree/order is passed in any such language it shall be accompanied by a **translation of the same in English**.

- Read with the constitutional provisions, it is clear that **primacy is given to English** even by this Act.

Language of Subordinate Courts

- The state government has the power to declare any **regional language** as an alternative for the proceedings of the court.

- However, judgments, orders, and decree **may be** passed by the magistrate in **English.**

- The recording of the evidence shall be done in the prevailing language of the state.

- In case of a pleader being unacquainted with English, a translation into the language of the court shall be supplied to him on his request and the court shall bear such costs.

Feasible Criteria For EWS Reservation

Government committee report told Supreme Court that Rupees 8 lakh is feasible criterion for EWS reservation.

About The Report

The committee has said that RS 8 lakh criteria ensures that most low income people who are not required to pay income tax are not excluded and at the same time it is *not* be so high that it becomes over inclusive by including many income tax –paying middle and high income families into EWS, thus striking a fine balance.

- **Rejected Notion of Emulation of OBC Criterion**: It rejected that the Centre had "mechanically adopted" Rs 8 lakh as a number because it was also used for the OBC creamy layer cut-off.

- **Income Criterion more Stringent for EWS**: Despite being the same cut-off number, their composition is different

EWS's Income Criteria	Creamy Layer In OBC Category Income Criterion
✓ It relates to the financial year prior to the year of application	✓ It is applicable to gross annual income for three consecutive years.
✓ The Rs 8 lakh criteria for EWS include all sources, including farming.	✓ Income from salaries, agriculture and traditional artisanal professions are excluded from the consideration

Background

3 member committee comprising former Finance secretary, ICSSR Member-secretary, and Principal Economic advisor to examine the issue of Rupees 8 lakh ceiling for criteria for EWS selection. The committee was given four-week time to revisit the criteria.

Recommendations

1. Threshold of Rupees 8 lakh of family income seems reasonable.

2. Person whose family has **5 acre of agricultural land** and above irrespective of income, should exclude EWS category.

3. Committee has suggested dropping the existing criteria on residential asset size.

4. A three-year feedback loop cycle may be used to monitor the actual outcomes of these criteria and then be used to adjust them in future

5. Data exchange and information technology should be used more actively to verify income and assets and to improve targeting for EWS reservations and also across government schemes.

6. It also recommended continuing the existing process which is in effect since 2019 for the current admission cycle and criteria recommended in this report may be made applicable from next advertisement/admission cycle.

{For more about EWS Quota, Please refer The Recitals-October 2021}

Consumer Protection Rule 2021

Central Government has notified the Consumer Protection (Jurisdiction of the District Commission, the State Commission and the National Commission) Rules 2021. The rules are exercised under provision given under Consumer Protection Act 2019. New rules **revised pecuniary jurisdiction** for entertaining consumer complaints.

New Rules

1. The **District commission** will have jurisdiction to entertain complaints having value of the goods or services paid that does not exceed 50 lakh rupees (Earlier less than 1 crore).

2. **State commission** shall have jurisdiction to entertain complaints that has value of goods or services paid that exceeds 50 lakh rupees but does not exceed to 2 crore rupees(Earlier 1 crore to 10 crore).

3. **National commission** will have jurisdiction to entertain complaints that has value of the good or services paid that exceeds more than 2 crore rupees (earlier more than 10 crore).

Consumer Protection Act 2019

- It promulgates a **three- tier quasi-judicial mechanism** for redressal of consumer disputes namely district commission, state commission and national commission.

- Product Liability: A *manufacturer or product service provider or product seller* will be held responsible to compensate for injury or damage caused by defective product or deficiency in services.

- It provides provision to take strict action against the advertiser in the case of misleading advertisements.

- It brings **e- commerce under their jurisdiction**.

- It is swift and less time taking in comparison to older Consumer Protection Act 1986.

- The Act stipulates that every complaint shall be disposed of as expeditiously as possible and endeavour shall be made to decide the complaint within a period of **3 months** from the date of receipt of notice by the opposite party.

- To facilitate consumers in filing their complaint online, the Central Government has set up the **E-Daakhil**

Portal.

Consumer Protection (Direct Selling) Rules, 2021

Centre has notified Consumer Protection (Direct Selling) Rules, 2021 for the direct selling industry. It prohibits promotion of **pyramid schemes** and participation in money circulation schemes. It has been notified in exercise of the powers conferred by the Consumer Protection Act, 2019.

What Is Direct Selling

* Direct selling is a blanket term that encompasses a variety of business forms premised on **person-to-person selling** in locations other than a retail establishment, such as social media platforms or the home of the salesperson or prospective customer.

* Modern direct selling includes sales made through the party plan, one-on-one demonstrations, and other personal contact arrangements as well as internet sale

Key Points

The existing direct selling companies will need to ensure they comply with the rules within 90 days. However, direct sellers as well as the direct selling entities using e-commerce platforms for sale shall comply with the requirements of **Consumer Protection (e-Commerce) Rules, 2020.**

* **Applicability of the Rules**
    * ✓ All goods and services bought or sold through direct selling.
    * ✓ All models of direct selling, all direct selling entities offering goods and services to consumers in India.
    * ✓ All forms of unfair trade practises across all models of direct selling.
    * ✓ Direct selling entities which are not established in India, but offers goods/ services to consumers in India.

* **Mechanism to Monitor Activities:** It directed State governments to set up a mechanism to monitor or supervise the activities of direct sellers and direct selling entities.

* **Grievance Redressal Mechanism**: Every direct selling entity will have to appoint a nodal officer who shall be responsible for ensuring compliance with the provisions of the Act and the rules.

* **Cannot Induce Consumers**: Direct selling companies or their direct sellers cannot persuade consumers to make a purchase based upon the representation that they can reduce or recover the price by referring prospective customers to the direct sellers for similar purchases.

* **Incorporation Under Some Act**: Like Companies Act 2013 or if a partnership firm, be registered under the Partnership Act, 1932, or if a limited liability partnership (LLP), be registered under LLP Act, 2008.

* **Have a Physical Location**: A minimum of one physical location as its registered office within India

* **Self-declaration**: Entities will have to make self-declaration to the effect that Direct Selling Entity has complied with the provisions of the Direct Selling rules

Protecting Vulnerable Witness

Supreme Court expanded the meaning of vulnerable witnesses to include people with **mental illness** and people with **speech and hearing impairment**.

Background

In 2018, Supreme Court approved the **Witness Protection Scheme 2018** that aimed at enabling a witness to depose fearlessly and truthfully. While the scheme is pending in the Parliament, SC has ordered to imply the scheme immediately in all the states and would be the law of the land.

> **Key Points Of Judgement**
>
> - Right to witnesses to testify freely in court is part of Article 21(Right to Life).
> - The court said that the scheme will be the law under Article 141/142.
> - The bench has also asked all States and UTs to set up **vulnerable witness deposition complexes**, these rooms will be equipped with facilities to prevent the accused and witness coming face to face.
>
> The State of Gujarat v. Anirudh Singh (1997), 14th Law Commission Report and Malimath Committee Report has recommended a witness protection scheme

Key Points

Vulnerable witnesses will not be limited to mean only child witnesses. It will also include:

1. Age neutral victims of sexual assault.
2. Gender neutral victims of sexual assault under **section 377 IPC** (unnatural offences).
3. Witnesses suffering from mental illness as defined in **Mental Healthcare Act 2017**.
4. Witnesses with threat perception and any speech or hearing impaired individual or person suffering from any other disability.

Vulnerable witness Deposition centre (VWDC): The SC directed that all High Court's (HC) adopt and notify a VWDC within period of two months. VDWC should be established in close proximity to Alternate Dispute Resolution (ADR) centres.

Training programme: To manage VWDC and sensitising all stakeholders including members of the bar bench and staff to sensitise.

- The SC urged former Chief Justice of J&K HC Justice Gita Mittal to act as **Chairperson of a committee** for designing and implementing an **All India VWDC training program**.
- The SC also directed the **Chairperson of the committee** to engage with **National and State Legal Services Authorities** to provide an effective interface for schemes of training.
- It also asked the Union Ministry of Women and Child Development to designate a **nodal officer** for coordinating logistical support to the Chairperson.

India Skill 2021

India biggest skill competition, India Skills 2021 was concluded recently. India Skill competition is held every **two years** with support of state government and industry.

- National Skill Development Corporation (**NSDC**) working under Ministry of Skill Development and Entrepreneurship (MSDE) leads and organizes skill competitions.
- The winners of India Skills 2021 Nationals will get a chance to represent the country at WorldSkills International Competition to be held in Shanghai, China in October 2022.

Objective: It offers young generation from grass root level to showcase their talent at national and international level.

Highlights of India Skill 2021

1. 30 states and UTs participated in 54 skill competition. **Odisha** won highest number of medals
2. Three new skills **Yoga, Shoe making (leather) and garment making** (leather) were included.
3. It featured **Abilympics**, a demonstration of skills by Persons with Disabilities in 16 skills.
4. Seven new age skills introduced: Robot system integration, additive manufacturing, digital construction, industry 4.0, renewable energy, mobile applications development and industrial design technology

5. Women participation in plumbing and heating skill for the first time was showcased.

Skill development is a profound way to improve employment of the country. India's unemployment rate is highest. Up skilling can boost confidence of young generation and help the economy of country grow.

Universal Accesssibility Guidelines

Central Public Works Department (CPWD) has released the new **Harmonised Guidelines and Standards** for universal Accessibility in India 2021.

- It is revision of the **Harmonised Guidelines and Space Standard for Barrier-Free Built Environment for Persons with Disabilities and Elderly Persons,** released in 2016.
- Earlier, the guidelines were for creating a barrier-free environment (removing physical barriers), but revised guideline is focused on universal accessibility.

Objective of Guidelines: To design product and service accessible to people with disabilities.

Key Points

- It is drafted by a Team of the Indian Institute of Technology-Roorkee and National Institute of Urban Affairs of Ministry of Housing and Urban Affair.
- The guidelines also focus on people other than differently abled people. For example, Parent pushing child's pram, women wearing sarees etc.
- The guidelines are not just for Persons with Disabilities (PwD), but for those involved in planning projects, from the construction of government buildings to master-planning cities.
- **Nodal Ministry**: Ministry of Housing and Urban Affairs (MoHUA)

Constitutional and Legal Provisions

1. Article 14 says that state shall not deny to any person equality before the law or the equal protection of the laws within the territory of India. Person with disability should get equal rights.
2. India is signatory to **UN Convention the Right of Persons with Disabilities** that came into force in 2007.
3. **Accessible India campaign** also known as the **Sugamya Bharat Abhiyaan** focuses on enabling persons with disabilities to gain universal access and equal opportunity to develop.
4. **Right of the person with disability Act, 2016** provides comprehensive legislation concerning persons with disabilities. It recommends creating barrier –free environment by removing all types of discrimination against person with disabilities.

Uniform Civil Code (UCC)

Ministry of law and justice said in response to a PIL filed that to devise policy on uniform civil code is government's job. The matter is pending with law commission (21st) of India.

Background

- A UCC is one that would provide for one law for the entire country, applicable to all religious communities in their personal matters such as marriage, divorce, inheritance, adoption etc.
- Uniform civil code can be traced back to 1835 during which it was stressed to uniform laws relating to crimes evidence and contracts.
- In 1941, **B.N Rau committee** was formed to codify **Hindu law**. Based on these recommendations a bill was adopted in **1956 as Hindu Succession Act** to amend and codify the law relating to unwilled succession among Hindus, Buddhists Jains and Sikhs.
- However, there is separate personal law for Muslim, Christian and Parsis.

Status of Uniform Codes in India

- **Article 44** of the Constitution lays down that the state shall endeavour to secure a Uniform Civil Code for the citizens throughout the territory of India.

- Indian laws follow a uniform code in most civil matters such as:

Indian Contract Act 1872 → Civil Procedure Code → Partnership Act 1932 → Transfer of Property Act 1882 → Evidence Act, 1872

- States, however, have made hundreds of amendments and in certain matters there is diversity even under these civil laws.

- Recently, several states refused to be governed by the uniform Motor Vehicles Act, 2019.

Arguments In Favour Of UCC

- A Uniform Civil Code would, in theory, provide **equal status to all citizens** irrespective of the community they belong to.

- Uniform Civil Code means a set of laws that is **religion-neutral and gender-neutral**. Unfortunately, even after 75 years of Independence and 72 years of implementing our Constitution, we don't have gender-neutral and religion-neutral laws.

- **A UCC could lead to consistency and gender equality** when it comes to personal laws, and usher in some much-needed reforms.

  o Personal laws of different religions are **widely divergent** and there is no consistency in how issues like marriage, succession and adoption are treated for people belonging to different communities, which **clashes with Article 14** of the Constitution, which guarantees equality before the law.

  o **Reforms to personal laws** have also been inconsistent. For example, multiple amendments have been brought to Hindu personal laws, while Muslim law has seen fewer changes. This becomes evident in examples such as Muslim men being allowed to marry multiple wives, but women being forbidden from having multiple husbands.

    ✓ In another example, even after the 2005 amendment to the Hindu Succession Act, women are still considered part of their husband's family after marriage. So, in case a Hindu widow dies without any heirs or will, her property will automatically go to her husband's family.

    ✓ Men (fathers) are also treated as 'natural guardians' and are given preference under the Hindu Minority and Guardianship Act.

- Uniform Civil Code has five parts in it -- uniform age of marriage, uniform grounds of divorce, uniform maintenance and alimony, uniform adoption and guardianship, and uniform succession and inheritance. These are **not the matters of personal laws but civil rights and human rights**, and such matters **cannot be discriminated on the basis of religion or gender.**

- A common Civil Code will help the **cause of national integration** by removing disparate loyalties to laws which have conflicting ideologies.

- Courts have often said in their judgements that the government should move towards a UCC.

    ✓ The **Triple Talaq** was held to be violative of Article 14 (the right to equality), which is held by the SC from Shah Bano case (1986) to Shayara Bano case in 2017.

    ✓ **Sarla Mudgal Case (1995)**, which dealt with issue of bigamy and conflict between the personal laws existing on matters of marriage.

Arguments Against UCC

- UCC is covered under the Directive Principles of State Policies while Freedom of Religion and Conscience are guaranteed under Fundamental Rights. It is often argued that **State cannot frame and implement a policy which takes away or abridges the Fundamental Rights** of citizen.

- Separate personal laws are one of the ways in which people have exercised their right to practise their own religion, which has been particularly important for minorities. The UCC could become a tool to erode this right, **suppress minorities and homogenise culture.**

- The **Law Commission's report on reform of family law (2018)** comments that a uniform civil code "is neither necessary nor desirable at this stage." According to the Commission, the best way forward may be to preserve the *diversity of personal laws* but at the same time ensure that they do not contradict fundamental rights.

- Another argument against immediate introduction of Uniform Civil Code is that India is a land of vast culture and diversity and it is very easy to **initiate communal disharmony based on religious and social differences.**

Conclusion

The pros and cons of Uniform Civil Code should be thoroughly discussed and debated by all. Enlightened and responsible Statesperson should come forward and promote the need and necessity of Uniform Civil Code amongst the commoners and motivate them towards a common consensus that aims at establishing a Uniform Civil Code for the entire Republic of India.

Lok Adalat

A total number of 1,27,87,329 cases were disposed of in 2021 by Lok Adalat. Technology advancement like E-Lok Adalat has helped Lok Adalats to reach grass root level.

Key Points

- Lok Adalats means People's Court. It is based on Gandhian principles.

- It is one of the components of the **Alternative Dispute Resolution** (ADR) system.

- The first Lok Adalat camp was organised in Gujarat in 1982 as a voluntary and conciliatory agency.

- It is given statutory status under the **Legal Service Authorities Act, 1987**. The Act makes provisions relating to the organisation and functioning of the Lok Adalats.

Powers of Lok Adalat

1. Lok Adalats have same power as are vested in a Civil Court under the Code of Civil Procedure (1908).

2. All the proceeding before Lok Adalat shall be deemed to be judicial proceedings within the meaning of the Indian Penal Code (1860)

3. Every award made by a Lok Adalat shall be *final and binding* on all the parties to the dispute.

4. *No appeal shall lie* to any court against the award of the Lok Adalat.

Organisation	Jurisdiction
1. National Legal Service Authority (NALSA) along with other legal Services Institutions conduct Lok Adalats. NALSA was constituted under the Legal Services Authorities Act, 1987 which came into force on 9th November 1995. 2. District/ State Legal Service Authority or the Supreme Court/High Court/Taluk Legal Service Committee may organise LokAdalat at such intervals and places and for exercising such jurisdiction and for such areas as it thinks fit. 3. Every Lok Adalat organised for an area shall consist of such number of serving or retired judicial officers and other persons of the area as	1. Any case pending before the court can be reffered to Lok Adalat for settlement if a. Parties agree to settle the dispute in the Lok Adalat b. One of the parties applies for referral of the case to the Lok Adalat c. Court is satisfied that the matter can be solved by the Lok Adalat. 2. Matters such as matrimonial/family disputes, criminal (compoundable offences) cases, land acquisition cases, labor disputes, bank recovery case etc. are being taken to Lok

may be specified by the agency organising.	Adalat.
4. Usually, Lok Adalat consists of a **judicial officer as a chairman** and a lawyer (advocate) and a social worker as members.	3. Lok Adalat shall have no jurisdiction in respect of any case or matter relating to an offense **non-compoundable** under any law.

Benefits of Lok Adalat

- There are *no court fees* so it helps people for low socio economic to get legal service and justice.

- It delivers informal, cheap and expeditious justice to the common people.

- There is procedural flexibility and speedy trial. The parties to the dispute can directly interact with the judge

- It has reduced the burden of courts.

Limitations of Lok Adalats

- **Breaks in Continuity:** Repeated sittings at short intervals with the same judge are almost not possible which breaks the continuity of the deliberations.

- **Lack of confidentiality:** Lok Adalat proceedings are held in the open court and any member of public may witness these proceedings. Thus, the element of confidentiality is also lacking

- **Imposed injustice:** In a majority of cases, litigants are pitted against entities with deep pockets, such as electricity boards, insurance companies, banks, etc. In most cases, compromises are imposed on the poor who often have no choice but to accept them.

- **Diminished party autonomy:** It cannot be said that the parties remain in absolute control of the proceedings in contradistinction to what happens in mediation.

- **Needs consent of both the parties:** It cannot be forced on any party that the matter has to be decided by the Lok Adalat.

Election Expenditure & Deregistration Of Parties

- The election expenditure **of Lok Sabha** constituencies was increased from RS 54 lakh –RS 70 lakh (depending on the state) **to RS 70 lakh – to RS 95 lakh** by the Election Commission of India. It is revised ahead of Assembly polls in five states.

- Further, the spending limit for Assembly constituencies was hiked from Rs 20 lakh-Rs 28 lakh to **Rs 28 lakh-Rs 40 lakh** (depending on states)

- Enhanced amount of RS 40 lakh would apply in Uttar Pradesh, Uttrakhand and Punjab and RS 28 lakh in Goa and Manipur.

- In 2020, ECI has formed a committee to study the election spending limit. It noted that last major revision in spending limits for candidates were carried out in 2014, while there has been increase in the **number of electors** and **cost inflation Index** since 2014. So, there has been demand from political parties across the country to revise the limit.

  - ✓ Cost Inflation Index = **75% of the average rise in the Consumer Price Index (urban)** for the immediately preceding year.

Election Expenditure Limit

1. It is the amount an election candidate can legally spend for their election campaign.

2. It is mentioned under **section 77** of the Representation of the People Act (RPA) that every candidate shall keep a separate and correct account of all the expenditure incurred between the date on which they have been nominated and the date of declaration of the result.

3. All candidates are required to submit their expenditure statement to the ECI within **30 days** of the completion of the election.

4. An incorrect account or expenditure beyond the cap will disqualify the candidate by ECI for up to **three years** under section **10A of RPA**

5. However, there is **no cap on a political party's expenditure**, which is often exploited by candidates of the party. Nevertheless, all registered political parties have to submit a statement of their election expenditure to the ECI within **90 days** of the completion of the elections

---

Deregistration of Parties

Recently, the Election Commission of India has notified the updated list of **registered political parties**. ECI seeks **deregistration of parties** which do not contest elections, also it raised concerns over misuse of income tax exemption law.

About

- There are over two thousands **registered unrecognised parties**, and the EC has sought the power to deregister (Cancel registration) **inactive parties** over fears of such entities misusing income tax exemption law.

- **Section 13A of the Income Tax Act, 1961** has given 100% exemption to political parties on its income from house property, income from other sources, capital gains and voluntary contributions received from any person however, subject to certain conditions.

- **Power of Deregistration**: ECI has the power to register parties under the RPA 1951, but it does not have the power to deregister parties that are inactive.

- A party can only be de-registered if its **registration was obtained by fraud**; if it is **declared illegal** by the Central Government; or if a party **amends its internal Constitution and notifies ECI that it can no longer abide by Indian Constitution.**

POLL SYMBOL

Election symbols (Reservation and Allotment) order, 1968 authorises the election commission to recognise political parties and allot symbols to them. Election commission is only authority to decide issues on a dispute. It was upheld by Supreme Court in **Sadiq Ali and other vs ECI in 1971.**

Types of election symbol

There are two types of election symbol. I.e. Reserved and Free. Reserved symbol is a symbol which is reserved for a **recognised political party** for exclusive allotment to contesting candidates set up by that party. Free symbol is a symbol other than a reserved symbol.

Procedure of symbol allocation

○ Firstly, a party candidate has to provide list of **three symbols** from the EC's free symbols list at the time of filing nomination papers.

○ Secondly one symbol is allocated to the party/candidate on a **first-come first-serve basis**. But when a recognised political splits, the election commission takes the decision on assigning the symbol.

Desh Ke Mentor Programme: Delhi Government

National Commission for Protection of Child Rights (NCPCR) suggested that the Delhi government suspend its flagship 'Desh ke Mentor Programme'.

Desh Ka Mentor Programme

- Launched in October 2021, it aimed at connecting students in **classes 9th to 12th** with voluntary mentors.
- People between the **ages of 18 and 35** can sign up to be mentors through an app created by a team at the Delhi Technological University and will be connected with students based on mutual interest.
- The mentorship entails regular phone calls for a minimum of two months, which can optionally be carried on for another four months

---

Concern Raised by NCPCR

1. Assigning children to a mentor of same gender does not necessarily assure their safety from abuse.

2. It has also expressed concern over the lack of Police verification of the mentor.

3. It has also stated that limiting interactions to phone calls also does not ensure the safety of Children.

National Commission for Protection of Child Rights (NCPCR)

- It is a **statutory body** established under the Commission for Protection of Child Rights (CPCR) Act, 2005.

- It works under the aegis of **Ministry of Women and Child Development**. The Commission became operational in 2007.

- The Commission is mandated under CPCR Act, 2005 to ensure that all laws, policies, programmes, and administrative mechanisms are in agreement with the child rights enshrined in the Constitution of India and the UN Convention on the Rights of the Child.

- As per the definition of the commission, a child includes person up to the age of 18 years.

One District One Product

- 6 one district one Product (ODOP) brands are launched under Pradhan Mantri Formalisation of Micro food processing Enterprises (PMFMF) scheme.

- The Ministry of Food Processing Industries has signed an agreement with NAFED for developing ten brands of selected ODOPs under the **branding and marketing component of PMFMF scheme**. Out of ten, following six brands were launched.

Name of Product	Name of District
1. Amrit Phal (Amla Juice)	Gurugram (Haryana)
2. Cori Gold (Coriander Powder)	Kota (Rajhasthan)
3. Kashmir Mantra (Kashmiri lal Mirch)	Kulgam, (Jammu and Kashmir)
4. Madhu Mantra (Honey)	Saharanpur (Uttar Pradesh)
5. Whole wheat cookies	Dilli Bakes (Delhi)
6. Brand Somdana (Ragi flour)	Thane (Maharashtra)

One District One Product (ODOP) Approach:

- It will provide the framework for value chain development and alignment of support infrastructure. There may be <u>more than one cluster</u> of ODOP products in <u>one district</u>.

- There may be a cluster of ODOP products consisting of <u>more than one adjacent district</u> in a State.

- The States would identify food products for districts keeping in view the existing clusters and availability of raw material.

- The ODOP could be a perishable produce based or cereal based or a food item widely produced in an area. E.g. mango, potato, pickle, millet based products, fisheries, poultry, etc.

Other Focus Areas	• Waste to wealth products, minor forest products and Aspirational Districts. • Capacity building and research: Academic and research institutions under MoFPI along with State Level Technical Institutions would be provided support for training of units, product development, appropriate packaging and machinery for micro units.
Marketing and Branding Support	• It would be provided to groups of FPOs/SHGs/ Cooperatives or an SPV of micro food processing enterprises for: Quality control, developing a common brand and packaging standardisation. Marketing tie-up with national and regional retail chains.
Financial Support	• Existing individual micro food processing units desirous of upgrading their units can avail credit-linked capital subsidy at 35% of the eligible project cost with a maximum ceiling of Rs.10 lakh • Support is for development of common infrastructure including common processing facility, lab, warehouse, etc. through FPOs/SHGs/cooperatives or state owned agencies or private enterprise. • A seed capital of Rs. 40,000- per SHG member would be provided for working capital and purchase of small tools.
Funding	• It is a centrally sponsored scheme. The expenditure would be shared in 60:40 ratio between Central and State Governments, in 90:10 ratio with North Eastern and Himalayan States, 60:40 ratio with UTs with legislature and 100% by Centre for other UTs.

24th National E-Governance

The Department of Administrative Reform and Public Grievance (DARPG, Ministry of Personnel, Public Grievances & Pensions) and Ministry of Electronics and Information Technology in association with state Government of Telangana organised the 24th conference on e- Governance.

Key Points

1. Discussions were held on six subthemes in plenary sessions.

- Atma Nirbhar Bharat
- Universalization of Public Service
- Innovation- platformization, Emerging Technologies
- Ease of living through Technology Intervention for Good Governance
- Citizen participation in Government Process
- Digital payments Building Citizen's confidence
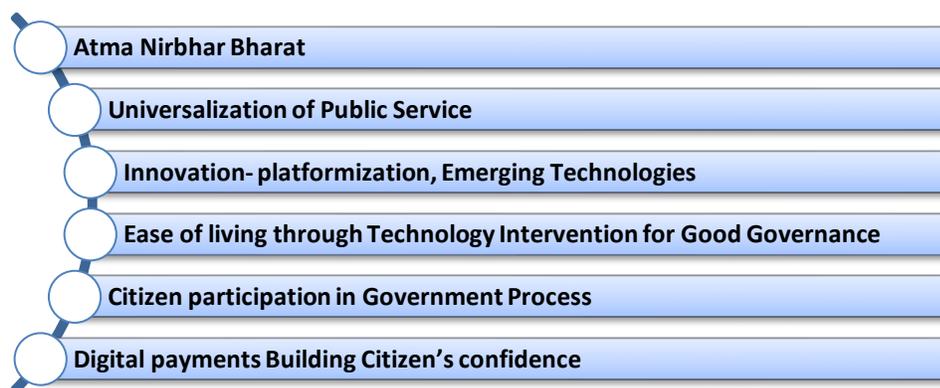
2. National e- Governance Award 2021 was presented during the inaugural session. 26 awards were presented in six categories.

3. It declared collaboration between state governments to bring citizens and government closer and uplift good governance to higher level through healthy competition among states and UTs and among Central Ministries by benchmarking services.

Vote Through Postal Ballot

ECI has allowed **media persons (Journalist)**, authorised by the poll body, to exercise their franchise using postal ballot facility.

Key Points

1. The person who wants to vote through postal ballot has to make an application to the returning officer in Form -12D.

2. The application has to be verified by the nodal officer appointed by the organisation concerned.

3. Any voter opting for postal ballot facility would not be able to cast a vote at the polling station.

4. Postal voting centres (PVCs) will open for three consecutive days in all the constituencies before the date fixed for the state assembly polls.

Postal Voting

It is a facility given to restricted set of voters. Through this facility, a voter can cast the vote remotely by recording her/his preference on the ballot paper and sending to the election officer before counting. Following voter can avail the facility.

1. Service voters (armed forces, armed police force of a state & government servants posted abroad)

2. Voters on election duty

3. Voter above 80 years of age or person with disabilities (PwD)

4. Voter who are under preventive detention.

Draft National Air Sport Policy

Ministry of Civil aviation has released a draft National Air Sports Policy (NASP).

Objective: The idea of the policy is to make India one of the _top air sports national by 2030_. It visualises to promote the country's air sports sector by way of making it safe, affordable, accessible, enjoyable and sustainable.

Key Points

- The policy proposes **two–tier** governance structure for air sports in the country. It will include an apex governing body called the **Air Sports Federation of India (ASFI)**. The ASFI will be an autonomous body under the Ministry of Civil Aviation.

- Popular air sports attractions in the country such as Bir Billing in Himachal Pradesh, Gangtok in Sikkim, Hadapsar in Maharashtra and Vagamon in Kerala can be declared as "control zone" for air sports. It will ensure safety of other manned aircraft.

- It will cover activities like aerobatics, aero modelling, experimental aircraft, ballooning, drones, gliding, hang gliding, vintage aircraft etc.

- Each air sports association will lay down its safety standards for equipment, infrastructure, personnel and training and specify the disciplinary actions.

India has huge potential to be among the leading nations in the world of air sports. It has a large geographical expanse, diverse topography and fair-weather conditions. It will help to enhance tourism and create professional tourists from across the world.

Deputation Of All India Services

- Department of Personnel and Training (DoPT) has written to States that the Union government proposes to amend **Rule 6** (deputation of cadre officers) of Indian Administrative Service (cadre) Rules 1954.
- DoPT has said that it is taking decision due to shortage of All India Services (AIS) officers in Union Ministries.
- Under this, Union government will acquire for itself **overriding powers** to transfer IAS and IPS officers through Central deputation, doing away with the requirement of taking the approval of the State governments.

Key Points of Amendment

- If the state government <u>delays posting a State cadre officer to the centre and does not give effect to the central government's decision within specified time</u>, the officer shall stand relieved from cadre from date as may be specified by the central government.

- The Centre will decide the <u>actual number of officers</u> to be deputed to the central government in consultation with the state. The state should make the names of such officer eligible.

- In specific situation where services of cadre officers are required by the central government in public interest, the state shall give effect to its decision within specified time.

- In case of any disagreement between the Centre and the State, the matter shall be decided by the Central government and the State shall give effect to the decision of the Centre.

Concerns with the Amendment

1. It will weaken the state's control over bureaucracy.

2. It is against the spirit of cooperative federalism.

3. It would create problem in effective governance.

Rural Area Development Plan 2021

Ministry of Panchayati Raj has revised Rural Area Development Plan Formulation and Implementation (RADPFI) guidelines 2017.

➤ RADPFI 2021 guidelines is a continuation to the Ministry's efforts towards promotion of Spatial rural planning and would create pathways for rural transformation by developing a perspective for long term planning in villages.

Objective: To bring ease of living in villages and to transform rural India and ensure rural prosperity.

Key Points

1. It includes <u>Village Planning Scheme </u>(VPS) on the lines of Town Planning Schemes in urban areas.

2. Provisions linking **Gram Panchayat Development Programme (GPDP)** with <u>Spatial Land Use Planning</u>.

3. It will take effort to boost local infrastructure, other developmental requirements, employment opportunities and resource base of Panchayats.

4. It will augment development of vibrant <u>economic cluster in rural areas</u>

5. It will supplement the efforts of the Central Government such as the <u>SVAMITVA scheme and RURBAN Mission.</u>

Directive Principle of State policy has emphasised to develop village. Development of village infrastructure is an important step in making villages progressive.

SVAMITVA Scheme

- As an initiative of **Ministry of Panchayati Raj**, it aims to provide rural people with the right to ***document their residential properties*** so that they can use their property for economic purposes.

- The scheme is for surveying the land parcels in rural inhabited area using Drone technology.

- **Objectives**
    - ✓ To bring financial stability to the citizens in rural India by enabling them to use their property as a financial asset for taking loans and other financial benefits.
    - ✓ Creation of accurate land records for rural planning.
    - ✓ Determination of property tax, which would accrue to the GPs directly in States where it is devolved or else, add to the State exchequer.

Digital Initiative Of Gujrat High Court

Supreme Court e- committee chairperson inaugurated two digital services for Gujarat High Court- a '**Justice Clock'**, and **electronic payment of court fee**.

Justice clock

1. Placed in high court premises, it is a Led display of 7 feet by 10 feet.

2. The clock will exhibit vital statistics of the justice delivery system in Gujarat to maximise outreach and transparency of the work done by the state judiciary.

Electronic payment of Court fee

Online e- courts fee system allows advocate and parties to procure judicial stamps online through electronic payment and upon submission of a PDF receipt.

Benefits of Digitisation

- Digital transformation brings in transparency and openness in court proceedings.

- The two digital initiatives add to a slew of other digital measures of Gujarat High Court.

- Digitisation is rescue to a situation like Pandemic.

Tenure Extension Of National Commission For Safai Karamchari

Union Cabinet has approved extension of the tenure of National Commission for Safai Karamchari (NCSK) for 3 years beyond 31st March, 2022.

National Commission for Safai Karamchari (NCSK)

- It was established in the year 1993 as per the provisions of the NCSK Act 1993.

- The NCSK has been giving recommendations to Government regarding specific programmes for welfare programme for Safai Karamcharis.

- The NCSK Act ceased to have effect from 29th February, 2004. After that the tenure of the NCSK has been extended as a non-statutory body from time to time through resolutions.

- As per provision of the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act, 2013, the NCSK has been assigned the work to monitor the implementation of the Act.

Prohibition of Employment of Manual Scavengers and Their Rehabilitation Act 2013.

- The Act prohibits employment of manual scavengers, manual cleaning of sewers and septic tanks without **protective equipment**.

- It seeks to rehabilitate manual scavengers and provide for their alternative employment.

Statistics

- As per the NCSK (2020 data), a total of 631 people have died in the country while cleaning sewers/septic tanks in last 10 years.

- 2019 saw the highest number of manual scavenging deaths (110 workers) in past 5 years. This is a 61% increase as compared to 2018.

- ~30000 people are engaged in manual scavenging in Uttar Pradesh (highest in any State)

Democracy And Empower City

RBI's report "State Finances, study of Budget of 2021-22" has mentioned that the functional autonomy of civic bodies must increase and their governance structure should be strengthened.

Key Points Of The Report

- The report emphasised on 15th finance commission's recommendation to strengthened city governance structure and financial empowerment.
- It highlights the financial strains faced by third tier governments during pandemic.
- Limited collection of property tax has strained revenue collection of municipal government.

Problem Faced By City Government

1. The age-old approach treating cities as adjunct of state governments continues to dominate the policy paradigm.
2. During Pandemic, the third-tier government were at front line but city Mayors were missing in disaster management plans.
3. The financial constrain is one of the major problems for city to function
4. The general approach towards urban empowerment has remained piecemeal in India.
5. The leadership period of city is elected for only one year.

Government's Effort

1. National Commission on Urbanisation was formed in 1980s under the chairmanship of Charles Corea.
2. The next important effort by government was Constitutional amendment 73rd and 74th. It referred to urban reforms empowering urban local bodies performing 18 functions listed in the 12th schedule.

Cities should be given freedom to function and policy makers should have holistic way forward rather than piece meal approach. It is important to treat cities as grass root centre of governance and financial autonomy is must as done in *Kerala as People's plan model.*

Reservation In Local Body Polls

Supreme Court decided to "recall" its December 2021 order, which stayed 27% reservation for Other Backward Classes (OBCs) in local body elections.

Background

- In March 2021, SC asked Maharashtra government to comply with triple conditions (2010 judgement)
- Following the SC order, the government appointed the dedicated commission for empirical data of OBCs and also promulgated an ordinance to give up to 27% reservation to the OBCs in local bodies without exceeding the 50% ceiling limit of the reservation.
- However, the apex court stayed it in December 2021, saying it cannot be implemented without the empirical data, and asked the State Election Commission (SEC) to convert the OBC seats into the general category and hold the elections.

- The Supreme Court's latest order said that it is mandatory to follow principle laid down by the Court for providing reservation to OBCs in local bodies.
- The Supreme Court has entrusted the Backward Classes Commission with the responsibility of giving political reservation to OBC in the upcoming local body election in Maharashtra.

- Maharashtra is not the only state where OBC reservation in local bodies was stayed. In December 2021, the top court passed a similar order for the Madhya Pradesh government, directing the OBC seats to be notified as general category for failing to comply with the three-test criteria (as stated in the 2010 judgement).

> **2010 Judgement**
> - The 5-judge Constitution Bench decision in K. Krishnamurthy (Dr.) v. Union of India (2010) wherein the SC had interpreted **Article 243D (6) and Article 243T (6)**, which permit reservation by enactment of law for backward classes in panchayat and municipal bodies respectively, to hold that **barriers to political participation are not the same as that of the barriers that limit access to education and employment.**
> - SC asked the state government to comply with triple conditions:
>   - Setting up a **dedicated commission** for collecting **empirical data on the OBC population,**
>   - Specifying the **proportion of reservation**
>   - **Ensuring that the cumulative share of reserved seats don't breach 50% of total seats.**

Implications

1. The order has increased the chances of restoring the OBC quota in the upcoming local bodies.

2. The government is likely to refer to the data of the previous backward class commission and the census 2011 data as well.

3. The government should ensure proper coordination with the Maharashtra State Commission for Backward Classes (MSCBC) and the State Election Commission (SEC) and should work together to restore the OBC quota in the local bodies.

It is important for every government to stick to the law as mandated by Article 141 of the constitution. Rule of law is not just in letters, but it has to be followed in spirit also.

CVC Modified Criteria

Central Vigilance commission (CVC) has again modified the criteria for **nomination** of Independent External Monitors (IEM).

Background

In June 2021 the Commission had issued the revised guidelines for adoption and implementation of the '**Integrity Pact'** specifying the eligibility criteria for nomination of IEMs.

Key points: The zone of consideration for empanelment as IEMs has been revised. It now includes:

1. The officers who held the post of **Additional Secretary** to the Government of India or Persons of equivalent/higher pay scale at the time of retirement at Centre and State.

2. Chairman-cum- Managing Directors (CDM) of Schedule 'A' public sector enterprises or were equivalent/higher to Additional Secretary to the Central government at the time of retirement.

3. CMDs/MDs and Chief Executive Officers (CEOs) of public sector banks, insurance companies and other financial institutions at the time of retirement;

4. Officers of the armed forces who were in a pay scale equivalent to or higher than that of Additional Secretary at the time of retirement, are also eligible.

Independent External Monitor

Independent External Monitor reviews independently and objectively, weather and to what extent parties have complied with their obligation under the pact. They may submit their report to the chief executive of the organisation concerned or directly to the Chief Vigilance Officer (CVO) and the CVC.

Integrity pact

It is vigilance tool that envisages an agreement between the prospective vendors/ bidders and buyer, committing both the parties not to exercise any corrupt influence on any aspect of the contract.

Attorney General gave consent to Mumbai- based activist to initiate **criminal contempt of court** proceeding against controversial priest of Haridwar conclave.

Background

The Priest was one of key organiser of the three –day conclave help last month in Haridwar where several hate speeches were made targeting minority group. The Priest also attempted to lower the authority of the Supreme Court.

Contempt of Court

- The expression 'contempt of court' has not been defined by the Constitution.

- However, Article 129 of the Constitution conferred on the Supreme Court the power to punish contempt of itself. Article 215 conferred a corresponding power on the High Courts.

- According to Contempt of Court Act, 1971, contempt of court can either be civil contempt or criminal contempt.

Civil Contempt	•It means wilful disobedience of any judgement, decree, direction, order, writ or other process of a court, wilful breach of an undertaking to a Court.

Criminal Contempt	•It means publication whether by words, spoken or written, or by signs or by visible representations or otherwise that scandalises or tends to scandalise, or lowers or tend to lower the authority of any Court. •It refers to behaviour which disobeys, offends or disrespects the authority or dignity of the Court

- Cognisance of criminal contempt is taken by Supreme Court and High Court.

Procedure of Criminal contempt is initiated in three manners

1. By the Advocate General or Attorney General

2. By any other person with the consent in writing by the Attorney General and Advocate General.

3. By the Supreme Court or High Court, itself.

Exception With Regard To Contempt Of Court

1. Truth is a valid defence, if in public interest and Bonafide in nature.

2. Innocent publication and distribution of matter are not contempt.

3. Fair and accurate reporting of judicial proceedings is not contempt.

4. judicial criticism is not contempt.

Contempt of Court Act was enacted to have a fair and just procedure for contempt of Court proceedings. This act balances between independence of judiciary and freedom of speech and expression.

Corruption Perception Index

- India ranks 85 in Transparency International's corruption index. The score is stagnant over past decade.
- This year, the top countries are **Denmark, Finland and New Zealand**, each with a score of 88. Norway (85), Singapore (85), Sweden (85), Switzerland (84), the Netherlands (82), Luxembourg (81) and Germany (80) complete the top 10.
- **South Sudan (11), Syria (13) and Somalia** (13) remain at the bottom of the index.

Key Points

- Concerns over the country's democratic status, as fundamental freedoms and institutional checks and balance are mentioned.

- The report highlighted concern over the risk to journalist and activists who have been victim of attacks by the Police, political militants, criminal gangs and corrupt local officials.

Transparency International

- Transparency International is an NGO which has headquarter in Germany.

- It aims to take action to combat global corruption with civil societal anticorruption measures.

- The index , ranks 180 countries and territories by their perceived levels of public sector

Publications of Transparency International
1. **Corruption perception Index**
2. **Global Corruption Report**
3. **Corruption Barometer**
4. **Bribe payers Index**

Kazakhstan Protests

A **sharp and sudden spike** in fuel prices **triggered a national crisis in Kazakhstan**. The government has officially stepped down, following days of violent protests across the country.

Why are Kazakhs Protesting

- Kazakhs first took to the streets on January 2, 2022, after fuel prices doubled in the oil-rich Central Asian nation. Price of fuel rose when the government lifted price caps for LPG.

- The protests began in the oil city of Zhanaozen. Demonstrations broke out and quickly turned violent in cities and towns across the country.

- The current protest is being called the **biggest wave of protests in Kazakhstan's history**.

What are the demands of the protestors?

1. Resignation of the government and lower the fuel(LPG) price

- Government had officially resigned on January 5.
- They argued that the jump in prices would cause a steep increase in food prices and deepen the income inequality that has plagued the nation for decades.
- In 2021, inflation in the country was closing in on 9% year-on-year, the highest it has been in over five years.

2. Demands for democracy

- It is believed that the demand for cheaper fuel is only the tip of the iceberg. There has been a growing discontent among ordinary Kazakhs, both over rising income inequality, which has only worsened due to the coronavirus pandemic, and the lack of democracy.
- During the Presidential elections of 2019, there were widespread reports of irregularities.
    - The election took place after the country's long-time Soviet-era leader Nursultan Nazarbayev stepped down from his post.
    - He was replaced by Tokayev, who is widely regarded as his hand-picked successor.
    - Nazarbayev and his family, however, continued to enjoy a fair bit of power in the country.
- Even today, **most of the anger is directed towards Nazarbayev**, who is widely still considered the country's ultimate ruler. The chants of 'Old man, go away' have been echoing across the country in this protest.

What Caused The Spike In LPG Prices

- It all began with the phased transition to electronic trading for LPG that began in January 2019 and concluded on the first day of this year.

- This means that almost all trade in LPG will now happen over online trading platforms. The exceptions being the sales to industrial consumers in the petrochemical sector & few other cases.

- The idea was to gradually **end the subsidizing of prices** for domestic fuel consumers and to allow the market to dictate prices instead.

- This policy has **led to a steep rise in costs where demand for this fuel is high**. In a matter of days, prices for LPG at gas stations doubled from 60 tenge ($0.14) to 120 tenge ($0.28) per litre.

What Was Wrong With The Old System

- Earlier, LPG was sold at a loss for producers, because prices for domestic consumers were regulated by the state. It was set at a rate below the cost of producing the fuel. Hence, there was little reason to produce LPG, which in turn generated shortages.

- Another goal of the reform was to tackle illegal trading in LPG. Black-market operators are said to covertly export the commodity to countries where prices are significantly higher than in Kazakhstan.

- With market relations dictating prices, making and selling LPG would finally become a more attractive proposition for producers.

CSTO Troops Deployed In Kazakhstan

- Under increasing pressure, President Kassym-Jomart Tokayev appealed to the Russia- dominated Collective Security Treaty Organisation (CSTO) for help.

  ✓ The President asked help from CSTO to combat what he called "terrorist groups" that had "received extensive training abroad".

- CSTO is an **intergovernmental military alliance,** dominated by Russia**,** which came into effect in May 2002.

  ✓ The origin of CSTO can be traced to the Collective Security Treaty, 1992 (Tashkent Treaty).
  ✓ It has the stated focus of preserving territorial integrity and seeking closer cooperation with other multilateral institutions.
  ✓ It is headquartered in **Moscow, Russia**.
  ✓ Members of CSTO are Armenia, Belarus, Kazakhstan, Kyrgyzstan, the Russian Federation and Tajikistan.

Suspected Drone Attack In Abu Dhabi

Two Indians and a Pakistani were killed recently in the United Arab Emirates (UAE) in a suspected drone attack. Houthis, a Yemen-based rebel group, has claimed responsibility for the explosions in Abu Dhabi which killed two Indians.

Indians Caught In The Crossfire

- This was the second time in past few weeks that Indian nationals have been caught in the crossfire between the Houthis in Yemen and a Saudi-led coalition.

- Seven Indians are among the 11-member crew on a UAE-flagged ship that was hijacked off the coast of Yemen, earlier in January 2022, by the Houthis.

About Civil War in Yemen

- One of the Arab world's poorest countries, Yemen has been devastated by a near **seven-year** civil war.

- The civil war started when the Houthi rebel group overthrew the government of President Abd-Rabbu Mansour Hadi from the capital **Sanaa in late 2014**.

- Alarmed by the rise of a group believed to be backed militarily by Iran, Saudi Arabia and eight other Arab states began a campaign.

- This campaign was aimed at restoring Mr Hadi's government. The UAE had joined the Saudi campaign in 2015.

Houthis and Zaydism

- The Houthis are part of a Shi'ite minority group, Zaydis, and originate from a large clan in Yemen's north-western Saada province. The Zaydis make up around 35% of Yemen's population.
- The Zaydi form of Shi'ism emerged in the aftermath of Zayd ibn Ali's rebellion against the Ummayyad Caliphate in the 8th century.
- Unlike other Shi'ites, Zaydis believe that Zayd was the rightful Imam due to his actions in taking the initiative against unjust rule.

Houthi Movement

- Hussein Badreddin al-Houthi, founded the Houthi movement in the 1990s.
- Hussein was later killed by the Yemeni military in 2004, following which his brother Abdul Malik took charge of the group.
- The war in Yemen began in September 2014, when Houthis took control of the capital, Sanaa.

Marginalisation of Houthis And Rise Of Insurgency

- The Zaidis, formerly a major force in north Yemen, were marginalised during the civil war of 1962-1970.
- They were further alienated in the 1980s as **Salafist Sunni** ideas gained traction over the border in Saudi Arabia, which spread the philosophy to Yemen.
- As a result, Zaidi clergy began arming their supporters against Riyadh and its allies. This resulted into sporadic insurgency.

Houthis' Relationship With Iran

- The Saudi-led coalition has regularly accused Iran of supplying the Houthis with sophisticated weapons.
- The United Nations had found that thousands of weapons recently seized in the Arabian Sea had their likely origin in an Iranian port. This shows that Tehran is exporting arms to Yemen and elsewhere.
- Saudi Arabia has also accused **Lebanese militant group Hezbollah** of training Houthi insurgent.
- Since 2014, Hezbollah and Iran have boosted their supplies of guns, missiles, military training, and funding to the Houthi war effort.
- However, it is unclear how much influence Iran has over the Houthis' decision-making processes.

China - Iran Strategic Pact

- China has announced that it will **begin implementing a strategic agreement** with Iran.
- Signed in Tehran in March 2021, when former President Hassan Rouhani was in office, the **strategic accord entails economic, military, security and political cooperation**.
- The $400 billion agreement paves the way for Iran's participation in the Belt and Road initiative. It will significantly expand China's economic and political influence.
- The details of this deal are not in public domain. However, analysts believe that this deal would secure a regular supply of oil for China.
- China is Iran's leading trade partner and was one of the biggest buyers of the country's oil before then-U.S. president Donald Trump re-imposed sweeping unilateral sanctions in 2018.

Pakistan's National Security Policy (NSP)

- Pakistan has released the public version of its first-ever National Security Policy (NSP), covering a five-year period from 2022 to 2026.
- **NSP stipulates**:

  - economic security as the core of national security
  - an expansion of the economic pie
  - supplementing geostrategy with geoeconomics
  - making Pakistan a trade and connectivity hub
  - curbing extremism and terrorism
  - Inculcating culture of introspection & pragmatism in defining national security interests
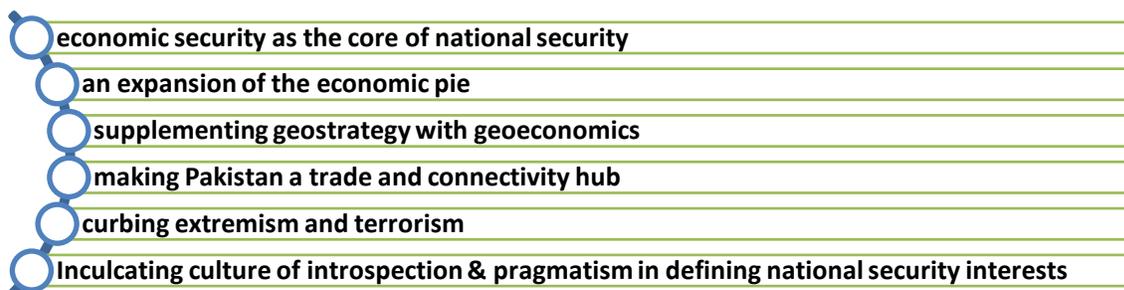
NSP & Relations with India

Relations with India

- Though wishing to improve relations with India, the NSP talks of:
  - India's hegemonistic designs;
  - Rise of Hindutva driven politics;
  - Political exploitation of a policy of belligerence towards Pakistan by India's leadership', which has led to the threat of military adventurism and non-contact warfare.

On Jammu and Kashmir

- On Kashmir, standard postulations are repeated. A **just and peaceful resolution of the dispute remains a vital national security interest.**
- It further mentions that **India's illegal and unilateral actions of August 2019** are seen to have been rejected by the people of Indian Illegally Occupied Jammu and Kashmir (IIOJK).

Nuclear

- NSP holds that Pakistan's nuclear capability deters war through full-spectrum deterrence within the precincts of **credible minimum nuclear deterrence**.
- The obsession with **India's nuclear triad**, open-ended statements on nuclear policy continues.

Terrorism

- NSP claims to **pursue a policy of zero-tolerance** against any groups involved in terrorism. There is rather vague talk of a **four-pronged policy of engagement**:
  - separating reconcilables from irreconcilables;
  - cutting off recruitment;
  - constricting financial sources; and
  - pursuing targeted socio-economic policies to address governance-related concerns in regions where violent sub-nationalist elements operate.

Analysis

- The policy, while counting increasingly on its **nuclear arsenal** for its defence, retains its obsession to keep up with India's conventional military capability.

- Pakistan's emphasis on geoeconomics **without trade and transit links with India** is an empty slogan.

- Pakistan can become a meaningful transit hub only by providing linkage, together with India, between Central/West Asia and beyond on one side and Southeast Asia and beyond on the other.

o However, it has continued to deny transit to India and blocked intra-regional connectivity in SAARC.

o Instead of addressing these issues, the **NSP describes Pakistan's eastward connectivity as being held hostage to India's regressive approach**.

Japan-Australia Defence Agreement

- Japan and Australia have signed a landmark treaty to strengthen defence ties. The accord would contribute to regional stability, as China expands its military and economic clout.

- This agreement would provide a clear framework for enhanced inter-operability and cooperation between the forces of these two countries.

- Called the **Reciprocal Access Agreement** (RAA), the treaty is only Japan's second such agreement. Its only other military pact is with the United States, a status of force agreement that dates back to 1960.

- This agreement is also significant in the sense that it marks the **move away from a US-centric outlook** towards a greater focus on bilateral ties and regional groupings.

- It is also a sign that Japan is willing to play a more proactive role in the region.

China Renames 15 Places in Arunachal Pradesh

- Recently, Beijing announced Chinese names for **15 places in Arunachal Pradesh** which the neighbouring country claims as South Tibet. This announcement was made by China's Ministry of Civil Affairs.

- Eight residential areas, four mountains, two rivers, and a mountain pass of Arunachal Pradesh have been renamed.

India's Reaction

- The Ministry of External Affairs has dismissed the Chinese invention.

- In a statement, the official spokesperson of the ministry said that Arunachal Pradesh has always been, and will always be, an integral part of India.

- Assigning invented names to places in Arunachal Pradesh does not alter this fact.

Why is China giving names to places that are in India?

- China claims some **90,000 sq km of Arunachal Pradesh** as its territory.
- It calls the area Zangnan in the Chinese language and makes repeated references to "South Tibet".
  - Chinese maps show Arunachal Pradesh as part of China, and sometimes parenthetically refer to it as "so-called Arunachal Pradesh".
- China makes periodic efforts to underline this unilateral claim to Indian territory. Giving Chinese names to places in Arunachal Pradesh is part of that effort.

Has China done something like this earlier too?

- The current announcement was a **second lot of standardised names of places** in Arunachal Pradesh that China has announced.
- Earlier, in April 2017, its Ministry of Civil Affairs had issued official Chinese names for six places in the state.
  - The latitude and longitude listed with the names indicated that these six places spanned the breadth of Arunachal Pradesh.

What Does China Seek To Gain From Making These Claims

- It is a part of the Chinese strategy to assert its territorial claims over Indian territory. Under this strategy, China routinely issues statements of outrage whenever an Indian dignitary visits Arunachal Pradesh.

o Most recently, it did so when Vice President Venkaiah Naidu went there to address the state Assembly in October 2021.

- Also, Chinese officials claim that the **standardisation was necessary** since all names used in southern Tibet were inherited through word-of-mouth for generations by minority ethnic groups.

- Hence, these names reflect that China's proposal on the sovereignty claim of the region has a **prominent historical, cultural, administrative and jurisdictional** basis.

- Laying aggressive claims to territories on the basis of alleged historical injustices done to China is a part of Beijing's foreign policy playbook.

  ✓ The claim on Taiwan is one such example.
  ✓ Also, consistent efforts are being made by China to change the facts on the ground in several disputed islands in the South China Sea.

McMahon Line

- The disputed boundary in the Eastern Sector of the India-China border is over the McMahon Line.
  - ✓ Representatives of China, India and Tibet in 1913-14 met in Shimla to settle the boundary between Tibet and India, and Tibet and China.
  - ✓ During the Shimla conference, Sir Henry McMahon, the then foreign secretary of British India, drew up the 550-mile (890 km) McMahon Line as the border between British India and Tibet.
- This line was drawn from the eastern border of Bhutan to the Isu Razi pass on the China-Myanmar border.

The Dispute

- The McMahon line moved <u>British control substantially northwards</u>. This agreement ceded Tawang and other Tibetan areas to the imperial British Empire.
  - ✓ Though the Chinese representatives at the meeting initialled the agreement, <u>they subsequently refused to accept it</u>.
  - ✓ Subsequently, the Chinese government stated that it does not recognize the "illegal" McMahon Line.
- China accuses India of occupying areas in Arunachal, which it calls part of Southern Tibet.
- China claims territory to the south of the McMahon Line, lying in Arunachal Pradesh.
- China also bases its claims on the historical ties that have existed between the monasteries in Tawang and Lhasa.

India- South Korea Trade Talks

Recently, South Korea's Trade Minister held talks with Indian Commerce and Industry Minister and discussed whole gamut of bilateral trade and investment-related aspects.

Key Highlights

CEPA Upgradation

- Both sides decided to impart fresh momentum to the discussions on the Comprehensive Economic Cooperation Agreement <u>(CEPA) upgradation negotiations</u>.
- They also decided to promote extensive <u>B2B interactions on trade and investment</u> between industry leaders of the two countries.

Bilateral Trade Target

- Both sides affirmed their dedication to reaching the trade target of **USD 50 billion before 2030**.
- o This target was agreed at the summit meeting in 2018.
- It should be noted that the <u>bilateral trade in the first half (January-June) of 2021 was recorded at $10.97 billion</u>, an increase of 38% compared to the same period of the previous year.
- o South Korea's exports to India increased 38.5% ($7.4 billion), imports increased 37.4% ($3.6 billion), and the trade balance recorded a surplus of $3.8 billion.

Aceh-Andaman & Nicobar Connectivity

- Recently, India's External Affairs Minister and **Indonesia's** foreign minister discussed a range of issues including the Aceh and Andaman &Nicobar Island connectivity.
- During PM Modi's 2018 visit to Indonesia, both sides decided to cooperate in connectivity between Andaman and Nicobar Island and Aceh province of Indonesia.
  - ✓ Sabang port in Aceh is around 90 nautical miles from the Indian islands of Andaman and Nicobar.
  - ✓ Sabang sits at the entrance of the Strait of Malacca, which is considered to be a key global choke point.

- During the 2018 visit, it was also decided to set up a **joint task force** to undertake projects for **port-related infrastructure** in and around Sabang by both the neighbouring countries.

India & Indonesia in G20 Troika

- This year, both the countries are part of the G20 Troika. Indonesia will hold the G20 summit this year and hand over the baton to India who will be chairing the grouping next year.
  o India will be hosting the G20 summit for the first time in 2023

India-Central Asia Summit

- The **first India-Central Asia summit** was hosted virtually by PM Narendra Modi.
  - ✓ The summit coincided with the <u>30th anniversary of establishment of diplomatic relations</u> between India and Central Asian countries.
- A comprehensive Joint Declaration, **Delhi Declaration of the 1st India-Central Asia Summit**, was adopted by the leaders.

> **Key Points Of The Declaration**

1. **Agreed to institutionalize the Summit mechanism**

   The Leaders agreed to hold it every 2 years.

2. **Other institutional mechanisms created**

- They agreed that the <u>Ministers of Trade and Culture</u> would meet at regular intervals to take forward cooperation in these areas.
  - ✓ India – Central Asia Dialogue mechanism at <u>Foreign Ministers level</u> already exists. Its 3rd meeting was held in New Delhi in December 2021.
- They also agreed to continue <u>regular meetings of Secretaries of the Security Council</u> to discuss security developments in the region.
- India had offered to establish an **India – Central Asia Centre in New Delhi** which could act as the **Secretariat** for the India – Central Asia Summit.
- Both sides also floated the proposal to create an '<u>India-Central Asia Parliamentary Forum</u>'.

3. **Principle of "Support of All, Development for All, Trust of All, Efforts of All"**

- PM of India outlined this principle for regional development, peace and prosperity.

4. **Development cooperation**

- Both sides signed MoUs for implementation of <u>High Impact Community Development Projects</u> (HICDPs) for socio-economic development in Central Asian countries, based on **grant assistance by India**.
  - ✓ For infrastructure development projects in Central Asian countries, **US$ 1 bn Line of Credit** was announced by India in **2020**.
- India proposed to organize customized professional training programmes for diplomats from the Central Asian countries at the Sushma Swaraj Institute of Foreign Service in New Delhi.

5. **Both sides proposed Round-table on Energy and Connectivity**

- The Central Asian countries welcomed the proposal of India to establish a **Joint Working Group on Chabahar Port** to address issues of free movements of goods and services between India and Central Asian countries.

6. **Cooperation between specialized national institutions**

- They proposed the establishment of an "IT/ITES Task Force" between the IT organizations, IT parks and IT companies of India and the Central Asian countries.

- This taskforce will work towards greater digitalization and E-Governance in their countries, as well as business process outsourcing (BPO) by sharing of best practices, knowledge etc.

7. **Dictionary of Common words**

- The Indian side proposed to commission a 'Dictionary of Common words used in India and Central Asian countries' and showcasing of a Buddhist exhibition in the Central Asian Countries.

8. **Defence cooperation**

- They agreed to consider holding of <u>joint counter-terrorism exercises</u> between India and interested Central Asian countries.

9. **On Afghanistan and its impact on the security**

- The Leaders reaffirmed the importance of UNSC Resolution 2593 which unequivocally demands that Afghan territory not be used for sheltering, training, planning or financing terrorist acts and called for concerted action against all terrorist groups.

- The resolution 2593 was passed last year under India's presidency.

- The leaders decided for establishment of a **Joint Working Group on Afghanistan at Senior Officials Level**.

[For detailed discussion about India – Central Asia, please refer the topic "***3rd India-Central Asia Dialogue***" from December 2021 Recitals]

China – Central Asian summit

- The India-Central Asia summit came only two days after Chinese President Xi Jinping's own summit meeting with the Central Asian leaders.

- In this summit, **China offered $500 million as aid to the five countries**.

SUMMITS AND ORGANISATIONS

First Joint Statement From Key Nuclear Armed States

- For the first time, the leaders of China, France, Russia, UK and USA, issued a statement about **avoiding an arms race and not targeting each other or at any other State**.

- The five countries, also permanent members of the UN Security Council said they believe strongly that the further spread of such weapons must be prevented.

- They stressed upon the need to comply with the bilateral and multilateral non-proliferation, disarmament, and arms control agreements and commitments.

- Joint statement was published in the light of deteriorating bilateral ties between the United States and Moscow. Also, the relations between USA and China are at its lowest point.

New Chair of UN Counter-Terrorism Committee

- **T S Tirumurti**, India's permanent representative to the United Nations was named the **new Chair of the UN Counter-Terrorism Committee** (CTC).

- India is the chair the Counter-Terrorism Committee of the United Nations Security Council (UNSC) for 2022. Earlier, India had chaired this Committee in the Security Council in **2011-12.**

- This Committee was formed in September 2001 soon after the tragic terrorist attack of 9/11.

UNSC Uses 3-D Virtual Diplomacy

- Recently, members of UNSC went on a virtual field trip to **Columbia,** with the help of Virtual Reality (VR) technology.

- This was the **first time UNSC in New York used VR technology** in its security council session. This innovative solution will help in understanding conflicts, peacekeeping and peace-building, in a better manner.

5-alarm Global Fire

- In his address UN Secretary-General António Guterres told the General Assembly that the world is to face five major risks in 2022.

- These risks are referred to five – alarm global fire and include:

| Raging COVID-19 pandemic | Morally bankrupt global financial system | Climate crisis | Lawlessness in cyberspace | Diminished peace and security |

DEFENSE AND SECURITY

Cattle Smuggling at the Bangladesh Border

- The data related to cattle seizures indicates that **cattle smuggling from India to Bangladesh has been effectively tackled**.
- Recently, Border Security Force (BSF) had tied up with NGOs to check cattle smuggling to Bangladesh. Many analysts attribute this success to the recent collaboration.

Data Related To Cattle Seizures

- As per the latest data available with the Ministry of Home Affairs (MHA), cattle seizures by the Border Security Force (BSF) on the Bangladesh border were just 20,415 till November 2021 compared with 1,53,602 in 2015.
- 2018 was a turning point when cattle seizures dropped almost 50% to 63,716 compared with 1,19,299 in 2017.

Reasons for decline in the incidents of cattle smuggling

1. Special focus given on countering the cattle smuggling

- In 2015, addressing BSF personnel at a border outpost in West Bengal, then Home Minister Rajnath Singh urged the force to crackdown on cattle smuggling.
- Since then, the force has deployed extra personnel to monitor the border round-the-clock
  - o It has acquired more speedboats to chase smugglers transporting cattle through the rivers.
  - o It has also taken coercive action through lethal and non-lethal weapon firing on such trans-border criminals.
- Last year, in an official statement, the BSF called **cattle smuggling an act of sedition.**

2. Change in approach of BSF

- Earlier, after BSF seized cattle, it was handed over to customs authorities who auctioned them.
- The auctioned cattle would most often be bought by the same smugglers who brought them back to the border. This pushed up seizure numbers.
- In 2018, such auctions were stopped. Local police were asked to take possession of seized cattle, but they did not cooperate.
- So, the **BSF took care of the seized cattle with the help of some NGOs** and then gave them away to cow shelters.
- BSF has had to bear expenses, but this **brought down seizure numbers.**

3. Other factors responsible for decline in number

- Bangladesh increasing its own dairy capacity over the years; developments in the hinterland which restricted transportation of cattle to the border.

About Cattle Smuggling

- Cattle smuggling is an issue, which is considered to be one of the losses for India of losing its indigenous variety and trade.
- Cattle haats along the India-Bangladesh border are becoming a source of cattle for smuggling.

The Trade

- The US$500 million worth cattle trade between India and Bangladesh is mostly illegal.
- The demand for meat in Bangladesh and the hide for the country's leather industries keeps the trade running.
- Moreover, the unofficial ban on cow slaughter in many Indian states could be adding to availability of cattle for smuggling into Bangladesh.

The Nexus

- Cattle traverse hundreds of kilometres from states like Rajasthan, Haryana, Punjab, Uttar Pradesh, Bihar, and Jharkhand to reach the Bangladeshi cattle markets. These markets are called the '**khattals'**.

- They are transported in trucks to their border destinations in West Bengal and Assam.

- From these border points, smugglers use either the porous land route or the water ways through the rivers Kalindi, Ichhamati, Raimangal and Hariabhanga of Bangladesh to finally enter the country.

- There have also been instances of **secret tunnels dug** up between Bangladesh and India.

- Apart from these, smugglers also attach heavy wood logs to the animal's legs and raft them across the river to reach the shore of the neighbouring country.

Official Strategy to Tackle This Issue

- The Border Security Force (BSF), which guards the Indian border with Bangladesh, has been tasked to bring the trade to a halt.

- Since Bangladesh is a friendly country, the government has adopted the use of non-lethal strategy to deal with the smuggling issue. The troops operate with non-lethal with weapons like pump action guns, stun grenades and chili grenades.

- Recently, BSF has changed its approach to tackle this issue. Besides patrolling heavily and using non-lethal force, it has roped in NGOs to take care of the seized cattle.

Challenges Faced In Dealing With This Issue

- **Guarding a porous** border, is quite challenging. They have to guard a zig-zag border that meanders through densely populated villages, paddy fields, riverine territory as well as hilly terrain.

- Many experts point towards the fact that there is **corruption amongst ground forces**.

- The government of India is clear that the **BSF should not use force** while dealing with illegal immigrants or smugglers. This has emboldened smugglers, especially cattle smugglers.

- The smugglers on both the sides are **well connected and pass on information** on location of the border patrol guards.

- The BSF who patrol the area in groups of three or four are often outnumbered by hundreds of cattle smugglers.

First Colombo Security Conclave

- The first Colombo Security Conclave Virtual Workshop on "***Developing Regional Cyber Security Capabilities on Defensive operations, Deep/Dark Web handling and Digital Forensics***" was held.

- It was hosted by the National Security Council Secretariat in association with National Forensics Science University, Gujarat and the Secretariat of the Colombo Security Conclave.

- The workshop was the inaugural activity under the **4th pillar** of cooperation under CSC (i.e., Cyber Security and Protection of Critical Infrastructure).

About Colombo Security Conclave (CSC)

- *India, Maldives and Sri Lanka* began a **National Security Advisor (NSA)-level trilateral meeting** on maritime security cooperation in 2011.

- Following a halt from 2014-2019, the trilateral meeting was resumed in 2020. It was during this meeting in 2020 when the decision was taken to **establish the Colombo Security Conclave (CSC)**.

- During the NSA level meeting in November 2020, all the three countries agreed to broad base cooperation by expanding the scope to include issues such as:

- ✓ Terrorism, radicalization, extremism, illegal drugs, weapons, and human trafficking, money laundering, cyber security, and effect of climate change on the maritime environment.

- **Members** – India, Maldives and Sri Lanka

- o **Observers** - Mauritius, Seychelles, and Bangladesh

- It was acknowledged in 2020 that to ensure effective implementation of decisions taken at the trilateral meetings, it is important to have **biannual Deputy NSA level working group meeting**.

- **Key activities of CSC so far**:

- o a **secretariat** was set up in Colombo in March 2021;

- o a virtual trilateral table top exercise was held in July 2021 to discuss best practices and procedures for countering common trans-national maritime crimes;

- o Deputy NSA level meeting was convened in August 2021 where the three countries identified following **four pillars of cooperation**.

Marine Safety and Security	Terrorism and Radicalization	Trafficking and Organised Crime	Cyber Security

- o In November 2021, '*Focused Operation*' was conducted between the navies of the three countries. It was the **first operational cooperation under the CSC**.

- It has the potential to emerge as an effective security framework at the subregional level in the Indian Ocean.

Global Cybersecurity Outlook 2022

- The World Economic Forum (WEF) has released a first ever report on cybersecurity in the form of Global Cybersecurity Outlook 2022.

- The report identifies the *trends* and analyses the *near-term future cybersecurity challenges*.

- o The accelerated shift to remote working during the COVID-19 pandemic coupled with recent high-profile cyberattacks have resulted in bringing this report.

Key Findings

- The report said that each successful **cyber breach cost a company $3.6 million** (nearly Rs 27 crore) last year.

- Digital transformation is the main driver in improving cyber resilience. The accelerating pace of digitalization due to the COVID-19 pandemic and the shift of our working habits is pushing cyber resilience forward.

- Three critical challenges faced by the businesses are:

  - Prioritizing cyber in business decisions
  - Gaining leadership support for cybersecurity
  - Recruiting and retaining cybersecurity talent
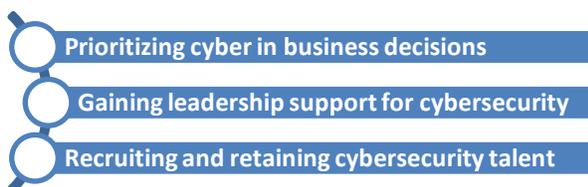
- Ransomware attacks are increasing in frequency and

What are the personal cybersecurity concerns of cyber leaders?

- 10% Loss of personal assets by cyberattack
- 4% Other
- 20% Ransomware attack
- 42% Infrastructure breakdown due to a cyberattack
- 24% Identity theft
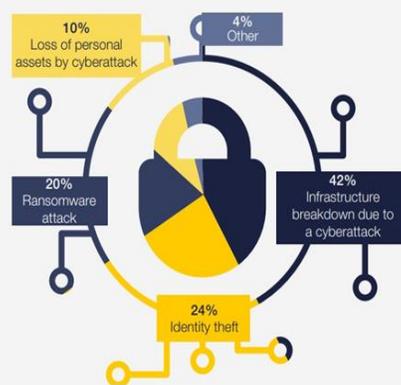
Estimated amount of data created on the internet in one minute

60 Seconds

- 28,000 Netflix subscribers watching
- 2m Twitch views
- 695,000 Instagram stories shared
- US$ 1,6 m spent online
- 9,132 LinkedIn connections made
- 2m Tinder swipes
- 69m WhatsApp messages sent
- 197.6 m emails sent
- 5,000 TikTok downloads
- 500 Youtube hours of content uploaded
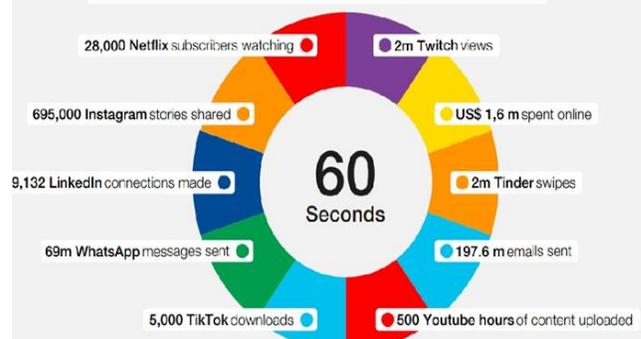
sophistication.

o Ransomware attacks are followed by social-engineering attacks as the second-highest concern for cyber leaders; number three on this list is malicious insider activity.

o A malicious insider is defined as an organization's current or former employees, who misuse their authorized access to critical assets in a manner that negatively affects the organization.

- Small and medium-sized enterprises (SMEs) are seen as a key threat to supply chains, partner networks and ecosystems.

o The leaders are concerned about the cyber resilience of SMEs in their ecosystem.

- Clear and productive regulations are needed, that would allow and encourage information sharing and collaboration.

Manuals and a Newsletter of Indian Cyber Crime Coordination Centre (I4C) Released

- Govt has released following 3 Manuals and a Newsletter of the I4C under the Cyber and Information Security Division (CIS) of the Ministry of Home Affairs.

  ○ Cyber Hygiene for Cyber Space - Dos and Don'ts – Basic Manual

  ○ Cyber Hygiene for Cyber Space - Dos and Don'ts – Advanced Manual

  ○ Quarterly Newsletter – **CyberPravah**

- The manuals are part of a focussed awareness campaign for prevention of cyber-crimes and to inculcate cyber hygiene in rural areas, industrial bodies, and the general public.

o I4C is also spreading mass awareness through various social media handles in the name of '**CyberDost**'.

Exercise Sea Dragon-22

- Recently, the QUAD member (US, India, Japan, Australia) countries as well as South Korea and Canada participated in a multinational Anti-submarine warfare (ASW) drill which took place at Guam (US).

- The exercise was aimed to enhance interoperability among participating nations.

- Sea Dragon is an annual, multi-national high-end exercise hosted by the U.S. Navy.

New chairperson to PMLA Adjudicating Authority

- **Vinodanand Jha** has been appointed as the chairperson of the PMLA Adjudicating Authority.

- The **three-member Authority** is mandated to **adjudicate the cases of attachment of assets** orders issued under the Prevention of Money Laundering Act (PMLA).

o The Authority is a mechanism provided under the PMLA to safeguard the interests of the accused against coercive action.

GEOGRAPHY AND ENVIRONMENT

Blend of 15% Green Hydrogen With Piped Natural Gas

Currently, the government is planning to blend 15% green hydrogen with piped natural gas (PNG) for domestic, commercial and industrial consumption.

About This Plan

- The move is in line with India's ambitious goals of reducing greenhouse gas emissions and becoming carbon neutral by 2070.
- This initiative will be part of the government's **National Hydrogen Energy Mission** with an aim to generate hydrogen from green energy sources.
- The government will bring green hydrogen under **renewable purchase obligation (RPO).** It means that bulk buyers such as DISCOMs and captive users have to buy a certain proportion of renewable energy (RE) out of their total power requirement.
- Like RPO, a similar mechanism will be created for hydrogen and it will be called hydrogen purchase obligation (HPO).
- The HPO will cover industries like oil refineries and fertiliser plants, which use grey hydrogen. HPO is likely to come from 2023.

Challenges With This Plan

- On the pipeline front, hydrogen embrittlement can weaken metal or polyethylene pipes and increase leakage risks, particularly in high-pressure pipes.
- To distribute blended fuel the current infrastructure requires major modifications to avoid potential embrittlement of the metal pipes.
- Compared to other fuel like gasoline, propane, natural gas, hydrogen is highly flammable that means hydrogen needs to be properly handled.
- **Lack of Infrastructure:** Because hydrogen is so much less dense than gasoline, it is difficult to transport. It either needs to be cooled to -253 degree C to liquefy it, or it needs to be compressed to 700 times atmospheric pressure so it can be delivered as a compressed gas.

{For more information about green hydrogen, visit the article from December Recitals on India's first Green Hydrogen Microgrid Project}

Bioenergy Crops

According to a new study, converting annual crops to perennial bioenergy crops can induce a cooling effect on the areas where they are cultivated. Eucalyptus, poplar, willow, miscanthus and switchgrass were the bioenergy crops used in the study.

Finding Of The Study

- Cultivation area under bioenergy crops occupies 3.8% ± 0.5 % of the global total land area.
- But they exert strong regional biophysical effects, leading to a global net change in air temperature of −0.08 ~ +0.05 degrees Celsius.
- Global air temperature decreases by 0.03-0.08 °C, with strong regional contrasts and inter-annual variability, after 50 years of large-scale bioenergy crop cultivation.
- The study warned that temperature changes in the bioenergy crop scenarios may have very large spatial variations and important climate teleconnections to other areas of the globe.

- Strong cooling effects in Eurasia, between 60°N and 80°N, may protect permafrost from thawing or reduce methane emissions from wetlands

About Bioenergy crops

- These include specific plants that are grown and maintained at lower costs for biofuel production.

- Wheat, corn, main edible oilseeds/oils, sugarcane, and other crops are among them.

- These crops increase soil carbon and fix atmospheric carbon.

- They could be used for the phyto-remediation of heavy metal-contaminated soils.

Chilika Lake

- Recently, the **Water Bird Status Survey -2022** conducted in the Chilika lake.

- The census was undertaken jointly by the Odisha State Wildlife Organisation, the Chilika Development Authority (CDA) and the Bombay Natural History Society (BNHS).

- 10,74,173 water birds (107 species) and 37,953 individuals (76 wetland dependent species) were counted in the entire lagoon.

About Chilika Lake

- It is Asia's **largest** and **world's second-largest** brackish water lagoon after <u>The New Caledonian barrier reef.</u>

- It is located at the mouth of the Daya River, flowing into the Bay of Bengal, covering an area of over 1,100 km2.

- In the year of 1981, it is designated the **first Indian wetland** of international importance under the Ramsar Convention.

- It is the largest wintering ground for migratory birds on the Indian sub-continent. The lake is home to a number of threatened species of plants and animals.

- The large **Nalabana Island (Forest of Reeds)** covering about 16 sq km in the lagoon area was declared a **bird sanctuary** in 1987.

- **Kalijai Temple** - Located on an island in the Chilika Lake.

Pangong Tso

China is constructing a new bridge in eastern Ladakh connecting the north and south banks of Pangong Tso lake and closer to the LAC (Line of Actual Control).

About Pangong Tso lake

- It is an endorheic lake located in eastern Ladakh and western Tibet at an altitude of 4,225 m.

- It is 134 km long and divided into five sub-lakes.

- More than $2/3^{rd}$ of the lake is under Chinese control.

- During winter the lake freezes completely, despite being saline water.

- The lake is in the process of being identified under the Ramsar convention as a wetland of international importance.

19th Meeting of National Tiger Conservation Authority (NTCA)

The 19th Meeting of National Tiger Conservation Authority (NTCA) was held under the chairmanship of Union Minister for Environment, Forest & Climate Change.

Outcomes Of The Meeting

- Tiger continues to be an endangered species and the situation calls for adopting as well as active management.

- The air gun problem in north eastern states is an issue that's why states & UT should organising awareness program so that people can surrender their airguns.

- As part of effective regulation of tourism activity in the Tiger Reserves, there should be one core area which should be sacrosanct and vehicular movement in the reserve being one way.

- The minister also released a Water Atlas, mapping all the water bodies in the tiger bearing areas of India & unveiled the Action Plan for introduction of Cheetah in India.

About National Tiger Conservation Authority

- NTCA is a statutory body, under the Chairmanship of the Minister for Environment and Forests.

- It was established in December 2005 following a recommendation of the Tiger Task Force.

- It was constituted under enabling provisions of the Wildlife (Protection) Act, 1972, as amended in 2006 & sets standards, guidelines for tiger conservation in tiger reserves, national parks and sanctuaries.

{For Introduction of Cheetah in India refer The Recitals – Nov' 2021}

Behali Reserved Forest

- Recently, the team of researchers working in the Behali Reserve Forest located the carcasses of five primates, believed to be capped langurs.

- Presumably these primates were killed by poachers for their skin, bones and tails.

About Behali Reserve Forest

- Located in the Biswanath district of Assam in the foothills of the Eastern Himalayas, it was declared as a reserved forest in 1917.

- It is a part of the greater Sonitpur Elephant Reserve.

- It lies between the two famous protected areas, the **Nameri National Park** on its west and **Kaziranga National Park** on its south.

- It is also recognized as an Important Bird Area in 1994 and a Key Biodiversity Area in 2004.

- Borgang and Buroi are the main tributaries flowing through Behali Reserve Forest and drains in the Brahmaputra.

Orang National Park

The government is pursuing a policy for the reintroduction of the gharial in the orang national park.

About Orang National Park

- It is located on the northern bank of the Brahmaputra River in the Darrang and Sonitpur districts of Assam.

- It was established as a sanctuary in 1985 and declared a national park in 1999.

- The Park has a rich flora and fauna, including great Indian rhinoceros, pygmy hog, Asian elephant, Bengal tiger and many more.

{For more information about Gharial refer The Recitals – Dec' 2021}.

Asian Waterbird Census (AWC)

Recently, in the Asian Waterbird Census has found lower waterbird species diversity at East Delhi's Sanjay Lake when compared to the count from the past three years.

About AWC

- It is an integral part of the global waterbird monitoring programme, the International Waterbird Census (IWC), coordinated by Wetlands International.

- AWC is held in the month of January every year.

- The major regions covered under AWC are Southeast Asia, Australasia, East Asian – Australasian Flyway, region between Afghanistan and Japan.

- It was initiated in 1987 in the Indian subcontinent.

- In India AWC is jointly coordinated by the Bombay Natural History Society (BNHS) and Wetlands International.

- During the census, the volunteers visit the wetlands and count the waterbirds.

Asola Bhatti Wildlife Sanctuary

A study is being undertaken to document the mammals at the Asola Bhatti Wildlife Sanctuary.

About Asola Bhatti Wildlife Sanctuary

- It lies on Delhi-Haryana border, covering 32.71 km2 area on the southern Delhi Ridge of Aravalli hill range.

- It is the part of the Northern Aravalli leopard wildlife corridor, which starts from the Sariska National Park in Rajasthan and ends at Delhi Ridge.

- This is an important habitat for the Indian leopard, Sambar deer, hog deer, nilgai, blackbuck and spotted deer.

- Bird species include the Booted Eagle, Greater Spotted Eagle, Steppe Eagle, Egyptian Vulture, and Black-Winged Kite.

Pench Tiger Reserve

Tigress named Collarwali, also known as the queen of Pench and a Super Mom who birthed 29 cubs died at Pench Tiger Reserve.

About Pench Tiger Reserve

- It lies in the southern slopes of the **Satpura range** on the southern border of Madhya Pradesh. It derives its name from the River Pench.

- It was declared a National Park by the Government of Maharashtra in 1975. It received the official status of Tiger Reserve of India in February 1999.

- It is spread over two states, the Seoni and Chhindwara districts of Madhya Pradesh and Nagpur district of Maharashtra.

- This area is considered one of the most prime & critical tiger habitat remaining in central India.

Other 5 Tiger Reserves In Madhya Pradesh

Kanha > Bandhavgarh > Satpura > Panna > Sanjay-Dubri

Weather Hazard And Vulnerability Atlas

India Meteorological Department (IMD) launches India's 1st weather hazard and vulnerability atlas.

About This Atlas

- It developed by the scientists at Climate Research and Services (CRS) office of the India Meteorological Department (IMD), Pune.

- It is based on 14 extreme weather events and the risks they pose to the local population, livelihoods and economy of each district. It provides month – wise hazard levels of each district.

- **Section 'Climate Hazard Map'** includes maps on dust storm, hailstorm, thunderstorm, fog, lightning, wind hazard, extreme rainfall events, drought, and cyclone.

- **'Climate Vulnerability Map' section** has maps/information/data for cold wave, heat wave, floods, and snowfall.

- It has 640 maps which provide a range of vulnerability with risks ranging from nil, low, moderate, high and very high categories for every Indian district.

Significance

- The primary purpose of the climate vulnerability maps is for the users of disaster management sectors to identify the vulnerable districts for taking preventive and adaptive measures.

- Each weather phenomenon's **month-wise** hazard levels posed to the respective district has been enlisted in this one-of-its-kind atlas.

{For details on Climate vulnerability index refer The Recitals- October 2021}

The Enigma

- Recently, 555.55-carat black diamond called "The Enigma" was unveiled in Dubai.

- It is believed to have come from outer space.

- The cosmic origin theory is based on their carbon isotopes and high hydrogen content.

- Black diamonds, also known as carbonado, are extremely rare, and are found naturally only in Brazil and Central Africa.

Species in News

Red Sanders	Recently, the Red Sanders has fallen back into the 'endangered' category in the IUCN Red List.
	About Red sanders (Red Sandalwood)
	• It is **endemic** to the southern Eastern Ghats Mountain range of South India.
	• They usually grow in the rocky, degraded and fallow lands with Red Soil and a hot and dry climate.
	• It was classified as 'near threatened' in 2018 in IUCN red list & is listed under Appendix II of CITES.
	Uses: Red sanders are known for its therapeutic properties and are in high demand for its cosmetic and medicinal properties, it is also used to make furniture.
	Threats
	• Over-exploitation and degradation to habitat through altered land use and the spike disease.
	Sandalwood Spike Disease
	• It is an infectious disease which is caused by phytoplasms which are bacterial parasites of plant tissues transmitted by insect vectors and involved in plant-to-plant

	transmission.
	• There is no cure as of now for the infection. There is no option but to cut down and remove the infected tree to prevent the spread of the disease.
	• The disease was first reported in Kodagu, Karnataka in 1899.
	• More than a million sandalwood trees were removed in the Kodagu and Mysore region between 1903 and 1916
Icefish	Scientists have discovered a massive breeding colony of icefish in **Antarctica's southern Weddell Sea**.
	Significance of this discovery
	• The discovery of the nests contributes to scientists' understanding of the icefish life cycle.
	• It raises even more questions, how often are the nests built, and reused? Do the fish die after the eggs hatch?
	• The findings reveal a globally unique ecosystem.
	About Ice Fish
	• Sometimes called crocodile icefish because of the shape of the snout.
	• They are also called white-blooded fish, because they **lack red blood cells and haemoglobin.**
	• Icefish have larger hearts and gill blood vessels to circulate a greater volume of blood, and this extracts sufficient oxygen from the oxygen-rich waters.
	• They were found at a depth of 90 metres to 200 metres.
Clouded leopard	Researchers have recorded photographic evidence of the clouded leopards at an elevation of 3,700 metres in the community forest of in eastern Nagaland.
	About Clouded Leopard
	• They are named so because they have large dusky-grey blotches and irregular spots and stripes reminiscent of clouds.
	• It is listed as Vulnerable on the IUCN Red List and listed in Schedule I of the Indian Wildlife (Protection) Act, 1972
	• They inhabit dense forests from the foothills of the Himalayas through mainland Southeast Asia into South China.
	• It is the State animal of the state Meghalaya in India.
	Threats
	• Large-scale deforestation and commercial poaching for the wildlife trade.
	• Its body parts are used for decoration and clothing.
Oriental Darter	Recently, the ringing of oriental darters has been taken up to monitor seasonal floatation in bird movement in the Keoladeo National Park after a gap of 22 years.
	About Oriental darter
	• It is a water bird of tropical South Asia and Southeast Asia.
	• It has a long and slender neck which looks like a snake when it swims and dives into water to catch a fish.
	• These birds are found mainly in freshwater lakes and streams.

	• It has been classified as Near-threatened in IUCN) red list.
	About Keoladeo National Park
	• Formerly known as the Bharatpur Bird Sanctuary, Rajasthan
	• It became a bird sanctuary in the year 1976 and then became a Ramsar site in the year 1981.
	• It was declared a national park in 1982 and then later tagged as a World Heritage Site by UNESCO in 1985.
	• The park is home to over 370 species of birds and animals and flora species.
Fimbristylis sunilii	• It is a perennial plant.
	• It stands 20-59 cm tall and was collected from an elevation of 1,100 metres.
	• It has been provisionally assessed as data deficient (DD) under the **IUCN Red List categories**.
	• It has been named after plant taxonomist C.N. Sunil, retired professor and research guide of Botany, SNM College.
	• It is being reported in **Western Ghats region**.
Neanotis prabhuii	• It is a prostrate perennial herb, and grows on high altitude grasslands.
	• It grows up to 70 cm in length and is many-flowered with the petals pale pink in colour.
	• It has been categorised as data deficient (DD) in the absence of any detailed observations and data on populations.
	• It has been named after K.M. Prabhukumar, Senior Scientist at CSIR-NBRI, Lucknow.
Monoceromyia flavoscutata	• M. flavoscutata, discovered from Thadiyankudisai in Dindigul district, Tamil Nadu.
	• It was named after its yellow-coloured thoracic ends.
	• It can be differentiated from the closely resembling species based on the colouration of the thorax and the wing vein characters.
	• It is wasp-like flower flies from north-eastern India and the Western Ghats.
Monoceromyia nigra	• M. nigra discovered from West Siang of Basar district of Arunachal Pradesh.
	• Differed from the other species based on thoracic, abdominal and facial colouration and wing vein character.
	• It was named as nigra based on the black-coloured thorax.
	• It is wasp-like flower flies from north-eastern India and the Western Ghats.
Sloth Bear	India's oldest sloth bear, fondly named Gulabo, died at the age of 40 at the Van Vihar National Park in Bhopal.
	About Sloth bear
	• The sloth bear is divided into two subspecies, Melursus ursinus ursinus and Melursus ursinus inornatus.
	• Sloth Bear (Melursus ursinus) is native to the Indian subcontinent and the other species found in Nepal, Bhutan and Sri Lanka.
	• Sloth Bears are myrmecophagous, which means that they eat ants and termites. They

	also feed on fruits and honey.
	• They are solitary creatures and generally nocturnal.
	• It is listed as Vulnerable on the IUCN Red List.
	• The Daroji Sloth Bear Sanctuary is Asia's first dedicated sanctuary for Sloth Bears. Established in 1994 in Karnataka.
	Threats
	• Poaching for the bears' gallbladder, which is used in traditional medicine.
	• Habitat loss and fragmentation are also severe threats.
	• Cubs may face risks from predators such as tiger, leopard and wolves.
Denison Barb	Denison barb (Miss Kerala) has been included in Schedule I of the Wild Life (Protection) Amendment Bill, 2021.
	About Denison Barb
	• It a native freshwater fish species commonly found in parts of Karnataka and Kerala.
	• The fish is featured with red and black stripes on its body.
	• IUCN Red list: Endangered.
	• This species is known to inhabit fast-flowing hill streams and is often found in rocky pools with thick vegetation along river banks.
	• It is commonly seen in the aquarium trade. Pet collection caused it to become endangered and is its single major threat.
	Issues With Inclusion Under Schedule I: The inclusion is literally a ban. This is wrong because:
	• This fish species is found in almost 11 rivers of Kerala and Karnataka with some of the highest endemic aquatic fauna in the country.
	• The income from the collection of Denison barb for the fish trade acts as an incentive for fishermen to protect habitats.
	• Hence, it would have been preferable to better regulate the trade by including the species in Schedule IV instead of Schedule I.
Eastern Swamp Deer	• The population of eastern swamp deer, has dipped in Kaziranga National Park and Tiger Reserve.
	• It decreased from 907 individuals in 2018 to 868 due to two high floods in 2019 and 2020.
	• Eastern swamp deer has now been distributed to areas beyond the Kaziranga National Park, such as Orang National Park and Laokhowa-Burachapori wildlife sanctuaries (Assam)
	About Eastern Swamp Deer
	• It is one of the three subspecies of swamp deer, commonly known as the (barasingha).
	• It is endemic to Kaziranga, Assam.
	• They inhabit swampy grasslands and floodplains in the Indian sub-continent.
	• They are already extinct in Pakistan and Bangladesh.
	• It is listed as Vulnerable in IUCN red list and Schedule I in wildlife protection act,

	1972.
	• There are three subspecies of swamp deer found, the western swamp deer found in Nepal, southern swamp deer found in central and north India and eastern swamp deer found in the Kaziranga and Dudhwa National Parks.
Spot-billed Pelicans 	The Mass death of spot-billed pelican is due to parasitic (nematode) infestation at the Telinelapuram Important Bird Area (IBA) in the Naupada swamp in Andhra Pradesh. **About Spot-billed Pelicans** • The spot-billed pelican also known as grey pelican is a member of the pelican family. • It breeds in southern Asia from southern Iran across India east to Indonesia. • They live in lowland freshwater, brackish, and marine wetland areas of Southeast Asia, mainly near open water. • Near Threatened in IUCN Red List and Schedule IV of the Wildlife (Protection) Act, 1972 (WPA).

Star Rating For Faster Green Clearance

Union Ministry of Environment, Forests and Climate Change has decided to "incentivise states" by ranking them on the basis of "efficiency and timelines in grant of environmental clearances".

About Rating System

- The State Environment Impact Assessment Authority (SEIAA) which clears projects in the shortest period of time, has a high rate of clearance, and seeks fewer "essential details" will be ranked the highest.

- It has been decided to incentivise the states through a star-rating system, based on efficiency and timelines in grant of EC (environmental clearance).

- It spells out **seven criteria** to rate SEIAAs on "transparency, efficiency and accountability".

- On a scale of 7, an SEIAA will get 2 marks if it takes less than 80 days on average for granting clearance; 1 for less than 105 days; 0.5 for 105-120 days; and 0 for over 120 days.

- If less than 10% of the projects for scrutiny prompted a site visit by committee members, to examine ground conditions, an SEIAA would get one mark. More than 20%, on the other hand, would be a demerit or zero marks.

- SEIAA with a **score of seven or more would be rated 'five star.'** The government said that if an SEIAA demands clarification, the time taken to respond won't be deducted.

Criticism

- Environmentalists warned that the state authorities, whose mandate is to ensure protection of the environment, will now "compete'' to clear projects swiftly, to increase state rankings.

- Rating system reduce the SEIAA to a 'rubber stamps authority' where their performance will be judged by the speed with which they facilitate environmental degradation and jeopardising of community livelihoods.

- Documentation is lacking in some cases, and in others, information provided is not sufficient to make any decision.

Significance

- It will increase ease of doing business in India.

- It is intended as a mode of recognition and encouragement as well as for prompting improvements where needed.

- SEIAA is a state agency that reviews specific projects enlisted in **Category B of Environmental Impact Assessment (EIA) Notification, 2006.** These are relatively smaller though they make up the bulk of projects (over 90% clearances) that are presented for approval

- SEIAAs are responsible for providing environmental clearance for a bulk of the infrastructure, developmental and industrial projects.

- Their main purpose is to assess the impact of the proposed project on the environment and people, and to try and minimise this impact.

4th Asia Ministerial Conference on Tiger Conservation

- It was organised by the Government of Malaysia and the Global Tiger Forum (GTF).

- At the conference, 13 Tiger Range Countries (TRC) adopted the **Kuala Lumpur Joint Statement on Tiger Conservation**, which emphasised joint commitments towards tiger conservation.

- The 13 TRC consist of Malaysia, Bangladesh, Bhutan, Cambodia, China, India, Indonesia, Laos, Myanmar, Nepal, Russia, Thailand, and Vietnam

- The conference is an important event for reviewing progress towards the Global Tiger Recovery Programme and commitments to tiger conservation.

- The 3rd Asia Ministerial Conference on Tiger Conservation was held in New Delhi, India.

India's Progress On Tiger Conservation

- India has achieved the remarkable feat of doubling the tiger population in 2018 itself, 4 years ahead of the targeted year 2022.

- The budgetary allocation for tiger conservation has increased from Rs 185 crore in 2014 to Rs 300 crore in 2022.

- 14 Tiger Reserves in India have already been awarded with international CA|TS accreditation.

- ~4.3 million man-days of employment are being generated by 51 Tiger Reserves in India.

- Funds from Compensatory Afforestation Fund Management and Planning Authority (CAMPA) are being utilized for promoting voluntary village resettlement from core areas of the Tiger Reserves.

About Global Tiger Forum (GTF)

- It is an Inter-Governmental international body working exclusively for conservation of Tigers.

- It was established in 1994. Its headquarters in New Delhi.

- The General Assembly of GTF meets after every three years.

Global Treaty To Cut Plastic Production

A report highlighted the urgent need to develop a **new global plastics treaty** taking into account the entire lifecycle of plastics.

About This Report

- It is presented by the non-profit Environmental Investigation Agency (EIA) of United Kingdom.

- It puts together recent scientific data on the impacts of plastics on climate, biodiversity, human health and environment.

- It was released ahead of the second part of United Nations Environment Assembly (UNEA) 5th Session in Nairobi, Kenya.

- The meeting is expected to redefine and decide every nation's relationship with plastic.

Recommendations To Tackle Plastic Pollution In This Repot

- Phase plastic production down to sustainable levels in alignment with the United Nations-mandated Sustainable Development Goal (SDG)-12.

- Promote the upscaling of reuse, refill and traditional packaging systems tailored to national contexts.

- The Parties are required to work towards mitigating the climate impact from extraction, processing, cracking and polymerization through targeted measures in their Nationally Determined Contributions (NDCs) under the Paris Climate Agreement.

- Member states must ensure that the proposed target to eliminate plastic waste discharges by 2030 is upheld and harmonised with the objectives of a new global plastics treaty.

Plastic Park

Union Government has given the final approval for setting up a plastic park at Ganjimutt in Mangaluru.

About Plastic Park

- It will be set up on 104 acres of Karnataka Industrial Areas Development Board (KIADB) land.

- In that, 50% of the project cost will be borne by Union Government and remaining 50% by KIADB.

- KIADB will create a special purpose vehicle (SPV) under its purview to implement the project.

- A polypropylene unit is to be set up in the park. This unit will provide **raw materials** to the polymer and plastic units inside the park.

➢ Polypropylene is a thermoplastic polymer. It is mainly used in plastic packaging.

Need For Plastic Parks

- The share of India in world trade of plastics is very low, it is about 1% in the global plastic exports market.

- The Indian plastics industry is huge but highly fragmented with the dominance of small and medium units and thus lacks the capacity to take advantage of this opportunity.

- These parks have great potential for attracting investments and generating more employment opportunities for the local population.

Plastic Park Scheme

- Under this scheme the Plastic Park are being developed by State Governments with the grant-in-aid funding support from Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers. The Central Government provides **grant funding** up to 50% of the project cost, subject to a ceiling of Rs. 40 crore per project.

- The ministry has approved setting up of 10 Plastic Parks in the country.

- The Scheme aims to increase the competitiveness and value addition in the plastic processing industry.

Kerala Gets Its First Ever Scientific Bird Atlas

The first-of-its-kind, State-level bird atlas in India has been created with Kerala Bird Atlas (KBA).

About This Atlas

- It has created solid baseline data about the distribution and abundance of bird species across all major habitats, giving an impetus to futuristic studies.

- KBA has been conducted as a citizen science-driven exercise with the participation of over 1,000 volunteers of the bird-watching community.

- The KBA accounts for nearly three lakh records of 361 species, including 94 very rare species, 103 rare species, 110 common species, 44 very common species, and 10 most abundant species.

Najafgarh Jheel Restoration Plan

The National Green Tribunal (NGT) has directed Delhi and Haryana to enforce the **Environment Management Plans** that the two governments have prepared for the rejuvenation and protection of the Najafgarh Jheel.

About The Management Plan

- The top priority would be to notify the Najafgarh jheel and its area of influence under The Wetlands (Conservation and Management) Rules, 2017.
- The rules prohibit and regulate certain activities within wetlands and their 'zone of influence'.
- Within notified wetlands, conversion of land for non-wetland uses and permanent constructions within 50 metres from the mean high flood level are prohibited.
- It also proposes a detailed estimate of sewage production in the area, taking into account 15 years of estimated population, and identification of all drains that contribute to pollution.
- Removal of water hyacinth and other invasive species in the lake.
- The implementation of these action plans is to be monitored by **National Wetland Authority** through the respective State Wetland Authorities.

> **About Najafgarh jheel**
> - It is a transboundary wetland, located along the borders of Delhi and Haryana.
> - The lake is fed by Sahibi river.
> - It was once spread over 226 square kilometer but today it has reduced to 7 square kilometer.
> - The lake supports 281 bird species, these include Stork Crane, Egyptian Vulture, Greater Spotted Eagle, Steppe Eagle, Imperial Eagle.
> - The migratory birds using the Central Asian Flyway were the first to rest in the lake.

Solar Waste

A report prepared by the **National Solar Energy Federation of India** states that India can generate more than 34,600 tonnes of cumulative solar waste by 2030.

Highlights Of The Report

- India does not have a solar waste management policy, but it does have ambitious solar power installation targets.
- Solar waste is the electronic waste generated by discarded solar panels. It can increase by at least four-five-fold by the next decade.
- India should focus its attention on drafting comprehensive rules to deal with solar waste.
- The issue was not addressed in the last electronic waste management regulations in 2016.
- Solar panels have a life of 20-25 years, so the problem of waste seems distant.
- Recycling a solar panel cost between $20 and $30, according to the National Renewable Energy Laboratory; sending it to a landfill costs $1-2.

Way forward

- Extended Producer Responsibility (EPR) for the manufacturer and developers to take responsibility for end-of-life of the solar panel.

- Build more **recycling plants** to avoid solar panels to end up in landfills. Solar panel waste is harmful to the environment because it contains toxic metals and minerals that can seep into the ground.
- New business models, incentives or issues of **green certificates** to be provided to encourage the recycling industry to participate more.

4th Tiger Reserve Of Rajasthan

National Tiger Conservation Authority (NTCA) has given the nod to Ramgarh Vishdhari Sanctuary of Rajasthan for the Tiger Reserve.

About Ramgarh Vishdhari Tiger Reserve (RVTR)

- The 1,052.12 sq. km RVTR in Bundi district will be Rajasthan's fourth tiger reserve and 52nd for the nation.
- The RVTR will link the Ranthambore Tiger Reserve in the Northeast and the Mukundra Hill Tiger Reserve on the Southern side.
- Other three tiger reserves of Rajasthan are Ranthambore Tiger Reserve (RTR) in Sawai Madhopur, Sariska Tiger Reserve (STR) in Alwar, and Mukundra Hills Tiger Reserve (MHTR) in Kota.

Why Rajasthan Need Another Tiger Reserve?

- The number of tigers in Rajasthan is increasing and the places are decreasing.
- Now tigers will have their dedicated place, which will reduce tiger-human conflict.
- For the past three decades, Rajasthan has been trying to develop a corridor for the movement of tigers around Ranthambore and Sariska, the new tiger reserve link them both.

Biligiri Ranganathaswamy Temple (BRT) Tiger Reserve

The tiger estimation is underway at Biligiri Ranganathaswamy Temple (BRT) Tiger Reserve.

About BRT Tiger Reserve

- It is located in Chamarajanagar district of Karnataka State.
- The habitat is situated in the middle of the bridge between the Western Ghats and the Eastern Ghats.
- It derives its name from the white rocky cliff on the top of which is a temple of Lord VISHNU locally known as Rangaswamy.
- The site was declared as a Tiger Reserve in 2011.
- In 2018 Census, 52 to 80 tigers were found there.

Fly Ash Management and Utilisation Mission

The National Green Tribunal (NGT) directed the constitution of a 'Fly Ash Management and Utilisation Mission.'

About The Mission

- The Mission's primary goal will be to coordinate and monitor issues relating to the handling and disposal of fly ash and associated issues.
- The Mission is to be jointly headed by the secretaries, of the Union Ministry of Environment, Forest & Climate Change (MoEF&CC), Union Ministry of Coal and Power and the chief secretaries of Uttar Pradesh and Madhya Pradesh.
- The **secretary of MoEF&CC** will be the nodal agency for coordination and compliance.

About Fly Ash

- Fly ash is an unwanted unburnt residue of coal combustion in a coal thermal power plant.

- It is emitted along with flue gases during the burning of coal in a furnace and collected using the electrostatic precipitators.

Concerns About Fly Ash

- All the heavy metals found in fly ash - nickel, cadmium, arsenic, chromium, lead etc - are toxic in nature. When combined with water they cause leaching of heavy metals in ground water.
- Fly ash particles can trigger heart disease, cancer, respiratory diseases and stroke.

Initiatives Taken

- The first official notification came in 1999 and it outlined some methods for the constructive use of fly ash to manufacture cement, concrete blocks and bricks etc.
- In 2021, National Thermal Power Corporation (NTPC) Limited had invited Expression of Interest for sale of fly ash.
- A web portal for monitoring of fly ash generation and utilization data of Thermal Power Plants and a mobile based application titled "ASHTRACK" has been launched.

Plan To Protect Great Barrier Reef

Australia unveiled a billion-dollar package to protect the climate-ravaged Great Barrier Reef. The plan aims to prevent the vast networks of corals from being removed from UNESCO's World Heritage List.

About Great Barrier Reef

- Extending for over 2,300 kilometers, it is the world's largest coral reef system. It is located in the Coral Sea, off the coast of Queensland in Australia.
- It is home to over 9,000 known species & consists of about 3,000 individual reefs of coral.
- It was designated as a World Heritage Site in 1981.
- As per the recent study, bleaching had affected 98% of reefs since 1998.
- In the year 2021, UNESCO has decided to downgrade its status.

Threats

- The Reef has suffered three mass coral bleaching events in just five years due to heat stress caused by climate change.
- Increasing sediment, nutrients and contaminants, combined with rising sea temperatures and ocean acidification are damaging the Reef.
- As Queensland continues to grow, so does development along the coast and islands adjacent to the Great Barrier Reef Region.

Coral Bleaching

- When water is too warm, corals will expel the algae (zooxanthellae) living in their tissues causing the coral to turn completely white. This is called coral bleaching.
- Bleached corals continue to live, but they are more vulnerable to disease and starvation because Zooxanthellae provide up to 90% of the coral's energy.

Indian Environment Service (IES)

The Supreme Court asked the Centre to establish a dedicated Indian Environment Service (IES) at the all-India level. The creation of IES was recommended by a committee headed by former Cabinet Secretary **TSR Subramanian in 2014.**

Why We Need IES?

- India had a strong environmental policy and legislative framework but weak implementation has resulted in environmental governance being criticised by conservation experts and the judiciary.

- The citizens are facing many environmental issues such as air pollution, water pollution, non-eradication of solid waste and garbage etc.

- Currently matters of environmental regulation rests on scientists recruited into the Ministry of Environment and Forests as well as bureaucrats from the Indian Administrative Services.

- It will act as an expert group in the public and quasi-governmental sectors over the next decades, regarding environmental matters.

India Nepal Bridge

New bridge is to be built over Mahakali River. It will link Dharchula in the Uttrakhand with Nepal's Dharchula.

Key Points

- The bridge will be completed in 3 years. It will help people living in Dharchula in Uttarakhand and in the territory of Nepal.

- It will boost the existing people to people relation both sides, hence deepening the ties between two countries.

- India is Nepal's largest trade partner and largest source of foreign investments.

Mahakali River

- It is also known as Sharda river or Kali Ganga in Uttarakhand.

- It joins Ghagra river in Uttar Pradesh, which is a tributary of Ganga.

- River Projects: Tanakpur hydro-electric project, Chameliya hydro-electric project, Sharda Barrage.

National Water Awards

Uttar Pradesh got first position for efforts towards water conservation in National Water Awards (NWA). The award was organised by Department of Water Resources, River Development and Ganga Rejuvenation Ministry of Jal Shakti.

Key Points

- The award was launched first in 2018.

- The awards are giving to States, Organisations, and Individuals etc.in 11 different categories.

- The main focus is on the good work and efforts made by individuals and organisations across the country and the government vision for the path to 'Jal Samridh Bharat'

- It provides opportunities to start-ups, leading organisations and people to engage and create awareness for management of water resources.

India has 18% of population and only 4% of renewable water resources so it is crucial for our country to conserve water. Initiative like this will help to create awareness for the conservation of water.

Solid State Battery

Recently, the Volkswagen in partnership with Quantum Space is aiming for production of solid-state batteries by 2025.

About Solid-state Batteries

Solid-state battery is a battery technology that uses a solid electrode and a solid electrolyte instead of the liquid or polymer gel electrolytes which is found in lithium-ion or lithium polymer batteries.

Reasons To Develop A Solid-State Battery

- A solid-state battery has **higher energy density** than a Li-ion battery (by eliminating the carbon anode), lower charge time (by eliminating the need to have lithium diffuse into the carbon particles in conventional lithium-ion cells), ability to undertake more charging cycles and thereby a longer life, and improved safety.
- It can increase energy density per unit area since only a small number of batteries are needed.
- It does not have a risk of explosion or fire. So there is no need to have components for safety, thus saving more space.
- They avoid the use of dangerous or toxic materials found in commercial batteries, such as organic electrolytes.

Uses Of Solid-state Batteries

- A solid-state battery has higher energy density than a Li-ion battery so it can be used in the electric vehicles. In August 2020, Toyota started road testing of their prototype vehicle, LQ Concept, equipped with a solid-state battery.
- The characteristics of high energy density and keeping high performance even in harsh environments the solid-state batteries are used in new wearable devices.
- They can also be used in space missions, soon Japan Aerospace Exploration Agency (JAXA) are going to test solid-state batteries in space.

Challenges With Solid-state Battery

- Expensive and difficult to manufacture.
- Solid-state batteries with ceramic electrolytes require high pressure to maintain contact with the electrodes.
- The interfacial instability of the electrode-electrolyte has always been a serious problem.

Dark Genome

Recently, scientists examining the dark genome have identified evolved parts for proteins associated with schizophrenia and bipolar disorder.

About Dark Genome

- Dark genome refers to 'DNA outside of the regions conventionally defined as genes'
- The human genome contains "dark" gene regions that cannot be adequately assembled or aligned using standard short-read sequencing technologies
- It preventing researchers from identifying mutations within these gene regions that may be relevant to human disease.

Significance Of The Research

- The researchers say that the newly discovered proteins can be used as biological indicator to distinguish the two conditions and identify patients more prone to psychosis.

The body of Nobel Peace Prize winner Anglican archbishop **Desmond Tutu** cremated by the process of aquamation in Cape Town.

About Aquamation

- It is a green alternative to traditional cremation methods.

- It also known as alkaline hydrolysis and defined as "flameless cremation".

- In this process the body is immersed for a few hours in a **mixture of water and a strong alkali** in a pressurized metal cylinder and **heated to around 150 degrees centigrade**.

- The combination of gentle water flow, temperature and alkalinity accentuate the breakdown of the organic materials.

- The process leaves behind bone fragments and a neutral liquid called effluent.

- The effluent is sterile, and contains salts, sugars, amino acids and peptides.

- There is no tissue and no DNA left after the process completes

- The process was developed and patented in 1888 by Amos Herbert Hanson, a farmer who was trying to develop an ingenious way to make fertilizer from animal carcasses.

Significance

- The process of aquamation uses energy which is five times less than fire.

- It also reduces by about 35% the amount of greenhouse gases that are emitted during other ways of cremation.

Mud Crab Reovirus (MCRV)

Mud Crab Reovirus (MCRV) has been found to be the reason for the mass mortality of wild crab in Andhra Pradesh.

About Mud Crab Reovirus

- MCRV is a viral pathogen belongs to the family of 'Reoviridae'.

- It mainly affects the connective tissue of hepatopancreas, gills, and intestine.

- It is also known as Sleeping Disease.

Why It Is A Concerning Issue?

- In Andhra Pradesh, total area under wild crab cultivation is around 25,000 acres and if crabs die because of MCRV, their cultivation will be badly affected.

- Wild crabs are exported directly from Andhra Pradesh to the South-East Asia region and have a large market in Europe. International trade will also be badly affected.

- Starting from 2019, about 60% of farming has been affected due to mass mortality in the state.

Lancet Report on Dementia

According to a Lancet report, the number of dementia cases in India is expected to almost double by 2050.

Key Findings Of This Report

- The global dementia cases are expected to triple by 2050 and in India the cases will go up by 197%.

- The study says that globally more women are affected by dementia than men and this pattern will continue till 2050.

About Dementia

- It is a syndrome that impairs the memory, thinking, reasoning and judgment of a person.

- Though dementia predominantly found in older individuals, but it is not just associated with old age. It can also result from primary or secondary injury that affects the brain.

- WHO categorises dementia into many forms. Alzheimer's disease is the most common form and may contribute to 60-70% of cases.

- There is currently no treatment available to cure dementia.

- Getting regular exercise, avoiding use of alcohol, eating a healthy diet, and maintaining healthy blood pressure, cholesterol levels can help lower the risk.

BrahMos

Recently, an extended range sea-to-sea variant of the BrahMos supersonic cruise missile was test fired from INS Visakhapatnam.

About BrahMos

- It is a medium-range **ramjet supersonic cruise** missile.

- This missile is produced by BrahMos Aerospace which is an **India-Russian** Joint venture.The name BrahMos is formed from the Brahmaputra of India and the Moskva of Russia.

- 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

- The missile is capable of carrying a regular warhead as well as a nuclear warhead.

- It operates on the "**Fire and Forgets**" principle, it does not require further guidance after launch.

- It flies at a speed of 2.8 Mach or almost three times the speed of the sound.

- The range of the missile was originally capped at 290 km as per obligations of the Missile Technology Control Regime (MTCR).

- After entering this MTCR club in June 2016, India decided to increase the range capability of the missile which can be increased up to 450 to 600 km.

About INS Visakhapatnam

- INS Visakhapatnam is the first of the Visakhapatnam-class stealth guided-missile destroyers of the Indian Navy developed under Project-15B.

> Other Three Ships of Project 15B
>
> - 2nd ship, Mormugao was launched in 2016, and is being readied for harbour trials.
>
> - 3rd ship (Imphal) was launched in 2019, and is at an advanced stage of outfitting.
>
> - 4th ship (Surat) is under block erection and will be launched within this current financial year (2022)

- The ship is commissioned in November 2021.

- It is indigenously designed by the Directorate of Naval Design, an in-house organization of the Indian Navy and manufactured by Mazagon Dock Shipbuilders Limited, Mumbai.

Man Portable Anti-Tank Guided Missile (MPATGM)

DRDO successfully flight tested the final deliverable configuration of Man Portable Anti-Tank Guided Missile.

About MPATGM

- MPATGM is third-generation anti-tank guided missile.

- It is indigenously developed by DRDO in partnership with Indian defence contractor VEM Technologies Private Limited.

- It can cover a minimum range of 200 to 300 m and a maximum range of 4 km.

- It weighs around 14.5 kg to maintain man portability. It is integrated with thermal sight and works on fire and forget principle.

- It is incorporated with state-of-the-art Miniaturized Infrared Imaging Seeker along with advanced avionics.

- It is effective against both stationary and moving targets.

Kala azar

For the first time in eight years, Jharkhand reported a death due to Kala azar in the state.

About Kala azar

- Kala azar, which also known as visceral leishmaniasis.

- There are three types of leishmaniasis:
    - ✓ Visceral leishmaniasis, which affects multiple organs and is the most serious form
    - ✓ Cutaneous leishmaniasis, which causes skin sores and is the most common form.
    - ✓ Mucocutaneous leishmaniasis, which causes skin and mucosal lesions.

- It is the second largest parasitic killer in the world after malaria.

- It is also one of the most dangerous neglected tropical diseases (NTDs).

- It is caused by a parasite called Leishmania, which is transmitted through the bite of female phlebotomine sandflies

- It attacks the immune system, and is almost always fatal if not treated.

- Symptoms may include <u>fever, weight loss and swelling of the spleen or liver.</u>

- The National Health Policy, 2002 had set the goal of kala-azar elimination by the year 2010 which was revised to 2015. This deadline was later extended twice to 2017, and then to 2020.

National Vector Borne Disease Control Programme

- NVBDCP is the central nodal agency for prevention and control of **six vector borne diseases** i.e. Malaria, Dengue, Lymphatic Filariasis, Kala-azar, Japanese Encephalitis and Chikungunya in India.

- It works under the Ministry of Health and Family Welfare & is subsumed under National Health Mission (NHM).

Cryogenic Engine for Gaganyaan

ISRO has successfully conducted the qualification test of Cryogenic Engine for Gaganyaan programme.

About Cryogenic Engine

- A cryogenic engine/ cryogenic stage is the last stage of space launch vehicles which makes use of Cryogenics (Cryogenics is the study of production and behaviour of materials at extremely low temperatures).

- Cryogenic engine makes use of Liquid Oxygen (LOX) and Liquid Hydrogen (LH2) as propellants which liquefy at -183 deg C and -253 deg C respectively.

- A cryogenic engine provides more force with each kilogram of cryogenic propellant compared to other propellants (solid and liquid propellant rocket engines) and is more efficient.

Asteroid 1994 PC1

- Recently, the asteroid named 1994 PC1 passed by earth on January 18, 2022.

- This asteroid did not cause any harm, it safely flies past our planet at a distance of 1.2 million miles or 1.9 million kilometres.

- This is about five times the distance between the Earth and Moon.

- Near-Earth objects that come at a distance of below 0.05 astronomical units or 7.5 million km from Earth are termed as potentially hazardous asteroids.

- Asteroid was discovered by astronomer Robert McNaught in 1994.

WASP-103b

Researchers have discovered a planet, named WASP-103b, which they say is shaped more like a potato or a rugby ball.

About WASP-103b

- It is an exoplanet which is 1,500 light-years away from Earth.

- Its orbit around host star WASP-103 completes an entire revolution in just 22 hours.

- The planet too is large, about one-and-a-half times the size of Jupiter.

- The researchers used ESA's CHEOPS satellite and relied on data from NASA's Hubble and Spitzer space telescopes to reach the conclusion about WASP-103b's rugby ball shape.

Reason For This Shape

- WASP-103b is only 20,000 miles away from its home star and this could cause tidal stresses to pull it into an unlikely shape.

Significance

- The bizarre oval exoplanet can theoretically tell us more about worlds like it and how they're formed.

- By measuring how much the planet is deformed we can tell how much of it is rocky, gaseous, or water.

Muscle Starvation and Vitamin D

Research says that skeletal muscles are generally full of energy, yet they starve in the absence of vitamin D.

About This Research

- The study is conduct in mice, and researches think this mechanism is broadly applicable in humans as well.

- This research shows that **glycogen stored in skeletal muscles** is not converted into a usable form of energy without vitamin D.

- Normally, glucose absorbed from food is converted into glycogen and stored in skeletal muscle.

- This stored energy store is used by the muscles to generate energy after the food consumed is digested.

- However, in the absence of vitamin D, skeletal muscle becomes deficient in energy, leading to reduced muscle mass.

About Vitamin D

- It is a fat-soluble vitamin and can be stored in your body for a long time.

- It is key to maintaining metabolic functions, immune system, bone health and plays a crucial role in depression, mood swings, anxiety and sleep quality.
- Getting sufficient sunlight is the best way to help the body produce enough vitamin D.
- The sunlight triggers a chemical reaction to a **cholesterol-based molecule**, and converts it into **calcidiol in liver** and into **calcitriol in kidney**. These molecules technically called **25-OHD** are physiologically active.
- Plentiful food sources of vitamin D include fatty fish, such as salmon, mackerel, and tuna, egg yolks, cheese, mushrooms etc.
- Deficiency: Rickets in children and osteomalacia (softening of bones) in adults

Rare-Earth Metal

US proposed a law aiming to end China's alleged "chokehold" on rare-earth metal supplies. The Bill aims to "protect the US from the threat of rare-earth element supply disruptions, encourage domestic production and reduce its reliance on China by creation of a "strategic reserve" of rare earth minerals by 2025

About Rare Earth Metal/Element

- The rare earth elements are a set of **17 metallic elements**. These include the 15 lanthanides on the periodic table plus Scandium and Yttrium.
- 17 metallic elements are lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium, lutetium, scandium, yttrium.
- They are called 'rare' because it was difficult to extract them from their oxides forms.
- The total world reserves are estimated at 121 million tonnes of rare earth oxides (REO).
- China alone accounts for 44 million tonnes followed by Brazil and Vietnam and Russia.

Significance of Rare Earth Metal

- These minerals have unique magnetic, luminescent, and electrochemical properties.
- These minerals are necessary components, especially for high-tech consumer products, such as **cellular telephones, computer hard drives, and flat-screen monitors and televisions**.
- They're used in electric car motors, lithium-ion batteries, solar panels, and wind turbines.

Rare Earth Metals In India

- India has the world's **fifth-largest** reserves of rare earth elements.
- Geologically the entire landmass around the **Indian Ocean** contains rare earth element in the surrounding rocks.
- **Monazite sand** is the principal source of thorium.
- Rare earth elements contribute a total value of nearly $200 billion to the Indian economy.
- **Indian Rare Earths Ltd (IREL)**, the government-owned company is involved in the extraction and processing of rare earth elements.

Web3

Recently the concept of Web3 created quite a buzz. It is believed that the Web3 is used to describe a potential **next phase** of the internet.

About Web3

- Web3 is a still-developing idea for a **third generation** of the web.

- It is a **decentralised internet to be run on Blockchain technology**.
- It aims to provide a single, consistent, platform-agnostic way to manage data across systems, without requiring a corporation to contain its own interests and agendas.

Why We Need Web3?

- In Web 2.0, much of the data on Internet traffic is owned or managed by a small number of behemoth companies (eg. Google). This has created problems related to data privacy, data security and misuse of such data.
- There is also a sense of disappointment that the original purpose of the internet has been distorted.

Benefits of Web3

- It will deliver **decentralized and fair internet** where users control their own data.
- It would break down the massive databases currently held by internet giant companies and would prevent their undue enrichment by handing greater control to users.
- It tries to remove the role of the platform. It enables peer to peer (seller to buyer) transaction by eliminating the role of the intermediary.
- It will also use machine learning, that uses data and algorithms to mimic the way humans learn, gradually improving its accuracy. These capabilities enable computers to deliver faster and more relevant results.

Earlier Versions of web

Web 1.0	Web 2.0
- It is the worldwide web or the internet that was invented in 1989. - The internet in the Web 1.0 days was **mostly static web pages**. - Web 1.0 lasted until 1999. - Even though there were **e-commerce websites** in the initial days it was still a **closed environment** and the users themselves could not create any content or post reviews on the internet	- It started in some form in the late 1990s, itself though 200 when most of its features were fully available. - It is still the age of Web 2.0 now. - The differentiating characteristic of Web 2.0 compared to Web 1.0 is that users can create content. They can interact and contribute in the form of comments, registering likes, sharing and uploading their photos or videos and perform other such activities. - Primarily, a social media kind of interaction is the differentiating trait of Web 2.0.

World Wide Web, which is also known as a Web, is a collection of websites or web pages stored in web servers and connected to local computers through the internet.

INS Kochi

Indian Navy's INS Kochi takes part in joint exercise with Russian warships in PASSEX exercise.

About INS Kochi

- It is the second ship of the **Kolkata-class** stealth guided-missile destroyers built under the code name **Project 15A** for the Indian Navy.
- It was constructed by Mazagon Dock Limited (MDL) in Mumbai.
- It was commissioned to Indian Navy service on 30 September 2015.
- On 1 November 2015, the Navy successfully test-fired the BrahMos supersonic cruise missile from Kochi.

It is normally undertaken whenever an opportunity arises, in contrast to pre-planned maritime drills. Earlier, Indian Naval ships conducted PASSEX with the US Navy also.

India's Destroyer Construction Programme

- Commenced in the late 1990s with the three Delhi class (P-15 class) warships

- This was followed by three Kolkata class P-15A (Kolkata, Kochi and Chennai) destroyers commissioned a decade later.

- Presently, under the P-15B (Visakhapatnam Class), a total of 4 warships are planned (Visakhapatnam, Mormugao, Imphal, Surat).

INS Ranvir

- Recently, there was an explosion in an internal compartment of the INS Ranvir at the naval dockyard in Mumbai.

- It is 4th of five Rajput-class destroyers built for the Indian Navy. It was commissioned in 1986.

- The Rajput-class destroyers which are also known as **Kashin-II class** are modified versions of Soviet Kashin class destroyers.

- Apart from INS Ranvir, it includes **INS Rajput, INS Rana, INS Ranjit and INS Ranvijay**.

- The Rajput class destroyers were the first ships in the Indian Navy to deploy the BrahMos supersonic cruise missile systems.

Space Debris

A Chinese satellite named 'Tsinghua Science Satellite' collided with a piece of debris scattered as a result of Russian anti-satellite missile test.

About Space Debris

- Also known as space junk, space garbage, it is mainly inactive artificial objects in space that no longer perform a useful function.

- Debris can also be caused by an explosion in space or when countries conduct missile tests to destroy their own satellites by missiles.

- Space debris orbits around the earth at tremendous speeds of about 15,700 miles per hour (25,265 kph) in low Earth.

- There are half a million pieces of debris larger than 1 centimetre and 100 million pieces of debris about one millimetre or larger.

- It could cause significant damage to a satellite or a spacecraft in case of a collision.

Can Space Debris Be Removed?

- According to NASA, debris in orbits below 600 kilometres will fall back to Earth within several years, but above 1,000 kilometres it will continue circling the Earth for a century or more.

- Japan's Aerospace Exploration Agency (JAXA) and the European Space Agency have partnered with start-ups to help with removal of space debris.

India's Step To Tackle Space Debris

- ISRO initiated '**Project NETRA**' in Bengaluru.

- It is an early warning system in space to detect debris and other hazards to Indian satellites.

- It will give India its own capability in space situational awareness (SSA), which is used to 'predict' threats from debris to Indian satellites.
- It also goes so far as to serve as an unstated warning against missile or space attack for the country.

> **Kessler Syndrome**: It is a possible effect that if one satellite produces debris that hit another satellite, this will create a chain reaction that will obliterate every orbiting object in the Low Earth Orbit, and thus creating a thick cloud of white dots travelling at high speed. Rockets would no longer be able to reach space since they risk getting hit by these debris.

5G telecoms: Threat to Airline Safety

The US Federal Aviation Administration (FAA) has issued a formal warning that the new 5G technology could interference with flight equipment such as altimeters, which measure how far above the ground an aeroplane is travelling.

Concerns

- The U.S. auctioned mid-range 5G bandwidth to mobile phone companies in the 3.7-3.98 GHz range on the spectrum, known as C-Band.
- Reportedly, the altimeters operate in the 4.2-4.4 GHz range and the concern is that the auctioned frequencies sit too close to this range.
- To get full value from 5G, operators want to operate at higher frequencies because, the higher the frequency in the spectrum, the faster the service.
- Some of the C band spectrum auctioned had been used for satellite radio but the transition to 5G means there will be much more traffic

Way forward

- In the short-term, Companies agreed to temporarily defer turning on some wireless towers near key airports to avert a significant disruption to US flights.
- In the Longer-term, the FAA needs to clear and allow the vast majority of the US commercial aeroplane fleet to perform low-visibility landings at many airports where 5G C-band will be deployed. This means certifying altimeters to operate near 5G base stations.

Country's First Mobile Honey Processing Van

Khadi and Village Industries Commission (KVIC) launched the country's first Mobile Honey Processing Van at Village Sirora in Ghaziabad, UP.

About Processing Van

- This mobile honey processing unit can process up to **300 KG of honey in 8 hours**.
- It is also equipped with a testing laboratory that would instantly examine the quality of honey.
- It comes as a major development under the Honey Mission of KVIC.

Why Farmers Need This Processing Van

- It is noteworthy that transporting honey to processing plants is a costly affair for small farmers and beekeepers.
- To avoid high transportation and processing costs, most beekeepers sell their raw honey to agents at very low prices on their farms.

Significance

- It reduces the honey extraction and processing cost to the beekeepers.

- It will also eliminate any scope for adulteration of honey as the processing will be done at the doorsteps of the beekeepers and farmers thereby maintaining purity.
- This will make beekeeping a more profitable business for small beekeepers.

Environmental DNA (e-DNA)

According to the recent studies the e-DNA can boost biodiversity conservation efforts across the world

About e-DNA (Nuclear or Mitochondrial DNA)

- Animals shed DNA through their breath, saliva, fur or faeces into the environment. These samples are called e-DNA.
- E-DNA is collected from a variety of environmental samples such as soil, seawater, snow or air, rather than directly sampled from an individual organism.

Significance

- This could help understand the composition of animal communities and detect the spread of non-native species. This method will work with existing techniques for monitoring **endangered species** after some fine-tuning.
- This process is comparatively easy. Typically, biologists observe animals in person or by picking up DNA from animals' footprints or faeces. Both demand extensive fieldwork.
- Spotting animals can be challenging, especially if they inhabit inaccessible habitats.

Limitation Of This Process

- In its current form, this method cannot provide accurate data for population census.
- But scientist hopes that the e-DNA technique will overcome this limitation in the future.
- In aquatic environments, eDNA is **diluted** and distributed by currents and other hydrological processes, but it only lasts about 7–21 days
- Exposure to UVB radiation, acidity, heat, and endo- and exonucleases can degrade e-DNA.

Code of Practice for Securing Consumer IoT

- Telecommunication Engineering Centre (TEC), under Ministry of Communications, has released a report "Code of Practice for Securing Consumer Internet of Things (IoT)".
- These guidelines will help in securing consumer IoT devices & ecosystem as well as managing vulnerabilities.
- This report is intended for use by IoT device manufacturers, Service providers/ system integrators and application developers etc.

Key Guidelines

- **No universal default passwords** - All IoT device default passwords shall be unique per device and/or require user to choose a password that follows best practices, during device provisioning.
- **Implement a means to manage reports of vulnerabilities** - IoT device manufacturers, IoT service providers / System integrators and Mobile application developers should provide a dedicated public point of contact as part of a vulnerability disclosure policy for security researchers and others to report security issues.
- **Keep software updated** - Software components in IoT devices should be securely updateable. Updates shall be timely and should not adversely impact the functioning of the device.
- **Securely store sensitive security parameters** - IoT devices may need to store security parameters such as keys & credentials, certificates, device identity etc. which are critical for the secure operation of the device.

- **Communicate securely** - Security-sensitive data, including any remote management and control, should be <u>encrypted in transit</u>.

- **Minimize exposed attack surfaces** - Devices and services should operate on the 'principle of least privilege'. Unused functionality should be disabled.

- **Ensure software integrity** - Software (including firmware) on IoT devices should be verified using secure boot mechanisms wherever applicable.

- **Ensure that personal data is secure** - In case the device collects or transmits personal data, such data should be securely stored.

- **Make systems resilient to outages** - Resilience should be built into IoT devices and services where required by their usage or by other relying systems.

- **Make it easy for users to delete user data** - Devices and services should have mechanisms such that personal data can easily be removed when there is a transfer of ownership, when the consumer wishes to delete it and/or when the consumer wishes to dispose of the device.

- **Make installation and maintenance of devices easy** - Installation and maintenance of IoT devices should employ minimal steps and should follow security best practice on usability.

- **Validate input data** - The consumer <u>IoT device software</u> shall validate data input via user interfaces or transferred via Application Programming Interfaces (APIs).

Doomed Exoplanets

- Recently, NASA's TESS (Transiting Exoplanet Survey Satellite) Mission spotted these exoplanets, named TOI-2337b, TOI-4329b and TOI-2669b that have <u>short-period orbits around giant stars.</u>

- The international team of researchers said that TOI-2337b will be consumed by its host star in less than one million years.

- This is sooner than the time estimated for any other currently known planet.

- These observations offer new windows into planets nearing the end of their lives before their host stars swallow them up and also how planetary systems evolve.

Two Species Of Fungi Associated With Basal Stem Rot Found

- Researchers from Kerala have identified two **new species of fungi** from the genus **Ganoderma** that are associated with coconut stem rot disease.

- The two Fungi species have been named Ganoderma Keralense and Ganoderma Pseudoapplanatum.

About Basal Stem Rot Of Coconut

- It is known by several names in different parts of India: Ganoderma wilt in Andhra Pradesh, Anaberoga in Karnataka, Thanjavur wilt in Tamil Nadu

- Infection begins at roots but symptoms include discolouration and rotting of stems and leaves.

- In the later stages, flowering and nut set decreases and finally the coconut palm dies.

Concerns

- In India, around 12 million people are said to depend on coconut farming.

- Once the plant got infected recovery of the plants is not likely, this causes a huge loss.

Significance Of This Finding

- Before this study, the disease was commonly attributed to the genus Ganoderma and the specific species involved were not identified correctly.

- Now they can easily detect the presence of the pathogen much earlier by analysing plant extracts which can be easily obtained at any stage of growth.

Small Satellite Launch Vehicle

ISRO announced that the indigenous SSLV-D1 Micro SAT will be launched in April 2022. Government has sanctioned a total cost of Rs. 169 Crores for the development project including qualification of the vehicle systems and the flight demonstration through three development flights (SSLV-D1, SSLV-D2 & SSLV-D3).

About SSLV

- SSLV is a **three-stage all solid vehicle** and it is the smallest vehicle at 110-ton mass at ISRO.
- It can carry satellites weighing up to **500 kg to a low earth orbit and 300 kg to Sun Synchronous Orbit (SSO).**
- It will take only 72 hours to integrate, unlike the 70 days taken now for a launch vehicle.
- It is intended to cater to a market for the launch of small satellites into low earth orbits.
- Dr S Somanath (Chairman ISRO) is credited with designing and developing the SSLV during his tenure as director of the Vikram Sarabhai Space Centre in Thiruvananthapuram since 2018.
- SSLV are Low cost, with low turn-around time, flexibility in accommodating multiple satellites and multiple orbital drop-offs, Launch on demand feasibility, minimal launch infrastructure requirements, etc.

OMISURE

Indian Council of Medical Research has approved a made in India testing kit, named Omisure, for detecting the omnicron variant of the SARS-COV-2 Corona Virus.

Key Points

- It is manufactured by Tata Medical and Diagnostics.
- The test is compatible with all standard Real Time PCR Machines
- The kit can also detect other variants as well
- It used S-Gene Target Failure (SGTF) strategy and S-Gene Mutation Amplification (SGMA) both.
- ✓ 'S' Gene, ORF, 'N' gene, Rdrp, 'E' gene are viral genes that are targeted to detect Covid-19.
- The kit will be manufactured for both domestic and international market.

GitHub Open Source

GitHub was recently used to create and share an offensive named app that sexually harassed women from particular community in India. The app used pictures of the women stolen from their social media handles and invited "users" to bid for them.

Git Hub

- Git Hub is world largest **open source developer community platform** where users upload their projects and code for others to view, edit and tweak.
- Most of features of the platform are free for users
- The basic ides of Github is that any developer can upload whatever software code or app code or software idea they have on the platform. Others can collaborate with them to improve

Response By Government And Concern Authorities

1. IPC Section 509 (words or act intended to outrage the modesty of a woman) and relevant sections of the IT Act have been invoked in the FIR.

2. The Indian Computer Emergency Response System, nodal agency for monitoring cyber security incidents has been asked to form "a high level committee" to investigate.

Government Initiatives on OSS: The Government of India had issued a Policy on Adoption of Open Source Software in **2015.**

➢ **Free and Open Source Software for Education (FOSSEE) Project**: To promote the use of open source software in educational institutions. It does that through instructional material, such as spoken tutorials, documentation, such as textbook companions, awareness programmes, such as conferences, training workshops, and internships.

➢ **Android version of Aarogya Setu app** is open source.

➢ **GovTech 3.0** is focussed on Open Digital Ecosystems (ODEs), the underlying philosophy suggests that the government should focus on creating the "digital commons

While the operating system of Apple's iPhones (iOS) is **closed source**, meaning it cannot be legally modified or reverse engineered, Google's Android operating system is open-source, and therefore it is possible by smartphone manufacturers such as Samsung, Xiaomi, OnePlus, etc to modify it for their hardware.

National War Memorial

The eternal flame of Amar Jawan Jyoti underneath India Gate was recently put out and **merged** with another eternal flame at the National War Memorial.

Amar Jawan Jyoti

- The eternal flame at the Amar Jawan Jyoti was an iconic symbol of the nation's tributes to the soldiers who have died for the country in various wars and conflicts **since Independence.**
- It was established in 1972, to mark India's victory over Pakistan in 1971 War, which resulted in the creation of Bangladesh. It had been burning continuously since then.

India Gate

- The India Gate, All India War Memorial, as it was known earlier, was built by the British in **1931.** It was erected as a memorial to around 90,000 Indian soldiers of the British Indian Army, who had died in several wars and campaigns between 1914-1921.
- Names of more than 13,000 dead soldiers are mentioned on the memorial commemorating them.
- As it was a memorial for the Indian soldiers killed in wars, the Amar Jawan Jyoti was established underneath it.

National War Memorial

- The National War Memorial, which is around 400 meters from India Gate was inaugurated in 2019.
- It was built to commemorate **all the soldiers** who have laid down their lives in the various battles, wars, operations and conflicts of Independent India.
- ➢ Eg. Sino-Indian war in 1962, Indo-Pak wars in 1947, 1965 and 1971, Indian Peace Keeping Force Operations in Sri Lanka, Kargil Conflict in 1999, United Nations peace-keeping missions, Humanitarian Assistance Disaster Relief (HADR) operations, counterinsurgency operations and Low-Intensity Conflict Operations (LICO).
- There are many independent memorials for such soldiers, but no memorial existed commemorating them all at the national level.
- The architecture of the memorial is based on four concentric circles:

Raksha Chakra	•Circle of Protection
Tyag Chakra	•Circle of Sacrifice
Veerta Chakra	•Circle of Bravery
Amar Chakra	•Circle of Immortality

Sahitya Akademi Awards

- The Sahitya Akademi Awards for literary works in 2021 were announced recently.
- The award is a **literary honour** in India, conferred by the Sahitya Akademi. It is conferred annually on writers of the most outstanding books of literary merit published in any of the **24 major Indian languages**.
- Besides the 22 languages enumerated in the Constitution of India, the Sahitya Akademi has recognised English and Rajasthani.

Sahitya Akademi

- Inaugurated in 1954, Sahitya Akademi - **India's National Academy of Letters**, is the central institution for literary dialogue, publication and promotion in the country.

- Functioning as an **autonomous organization**, it also gives special awards called **Bhasha Samman** to significant contribution to the languages not formally recognized by the Akademi and for contribution to classical and medieval literature.

World Hindi Day

- Recently on the occasion of World Hindi Day (10th January), UNESCO's World Heritage Centre has agreed to publish **Hindi descriptions of India's world heritage sites** on **WHC website**.

- World Hindi Day is celebrated to mark the anniversary of first World Hindi Conference which was held in **1975** by then Prime Minister Indira Gandhi. The day was **first observed on January 10, 2006.**

- National Hindi Diwas is celebrated every year on September 14. On that day in 1949, the constituent assembly adopted Hindi, written in Devanagari script, as the official language of the Union, while the focus of the World Hindi Day is to promote the language at the global stage.

Facts About Hindi Language

- The word Hindi originated from the Persian word Hind, which means the land of the Indus River.

- In linguistic terms, Hindi belongs to the Indo-Iranian sub-family of the Indo-European family of language.

- Hindi has been influenced and enriched by Turkish, Arabic, Persian, English and Dravidian (ancient South India) languages.

- The earliest form of Hindi was called 'Apabhramsa', which was an offspring of Sanskrit. In 400 AD, poet Kalidas wrote Vikramorvashiyam in Apabhramsa.

Padma Awards

- The Padma Awards 2022 were announced recently. 128 Padma Awards were approved this year.

- Instituted in **1954**, the Padma Awards are one of the highest civilian honours of India announced annually on the eve of Republic Day and are conferred by the President later.

- The Awards are given in **three categories**:

Padma Vibhushan (exceptional & distinguished service) → Padma Bhushan (distinguished service of higher order) → Padma Shri (distinguished service)
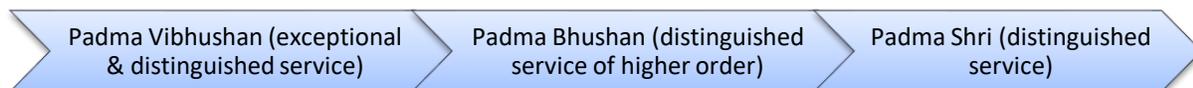
- The Padma Vibhushan is the second-highest civilian award of the Republic of India, second only to the Bharat Ratna.

- The Padma award seeks to recognize achievements in all fields of activities or disciplines where an element of public service is involved viz. literature and education, arts, science and engineering, trade and industry, civil services, public affairs, sports, medicine etc.

- The awards are given on the recommendations made by the **Padma Awards Committee**, which is constituted by the Prime Minister every year. The nomination process is open to the public. Even self-nomination can be made.

- All persons without distinction of race, occupation, position or sex are eligible for these awards. However, government servants including those working with PSUs, except doctors and scientists, are not eligible for these Awards.

- The awards can also be conferred on foreigners/Non-Resident Indian (NRI)/Person of Indian Origin (PIO)/Overseas Citizen of India (OCI).
- The award <u>does not amount to a title</u> and **cannot** <u>be used as a suffix or prefix</u> to the awardees' name.

Subhas Chandra Bose

- In order to commemorate the 125th birth anniversary of freedom fighter Netaji Subhas Chandra Bose, the government has decided to install his statue at India Gate.
- Born in 1897 in Cuttack, Bose was an Indian nationalist in the era of British colonialism.
- After completing his education in India, Bose left for London to prepare for the Indian Civil Services exam and cleared it.
- He had mixed feelings about working under the British, and eventually resigned in 1921 as a symbol of boycotting the British after the incident of the Jallianwala Bagh massacre.

Role in Freedom Struggle

- After returning to India, Bose joined the Indian National Congress (INC) under the influence of Mahatma Gandhi and started the newspaper "Swaraj".
- In the year 1923, he became the President of the All India Youth Congress and became the editor of the newspaper "Forward" started by C.R. Das.
- In 1928, Motilal Nehru Committee demanded <u>Dominion Status</u> in India but Bose along with Jawaharlal Nehru demanded complete independence of India from the British.
- He was sent to jail in 1930 during Civil Disobedience movement and was released along with other prominent leaders in the year 1931 when the Gandhi-Irwin pact was signed.
- In 1938, he was elected as President at the Haripura session of the INC. After re-elected as President in **1939,** differences arose between him and Gandhi.
- The senior leadership in the Congress supported Gandhi, and Bose resigned as president and formed another group called the **Forward Bloc.**
- He started a mass movement against using Indian men in the wars of foreign countries which received immense support and which led him to be put under house arrest in Calcutta but he left the house in disguise in January 1941 and reached Germany.
- His attempts to get rid of the British with the help of the <u>Nazi party and Imperial Japan</u> during the time of the second world war left him a troubled legacy.
- In July 1943, he arrived in Singapore and took over the reins of the Indian Independence Movement started by **Rash Behari Bose** and organized the **Azad Hind Fauj** also known as the **Indian National Army (INA).**
- The INA liberated the Andaman and Nicobar islands but when it reached Burma, bad weather conditions, as well as the defeat of Japan and Germany in the Second World War, forced him to retreat.
- He died in a plane crash in Taipei, Taiwan in 1945.
- In honour of his contribution to the freedom struggle his birthday anniversary is celebrated as Parakram Diwas. Parakram means Courage.