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Revised Guidelines for Foster Care

The Union Ministry of Women and Child Development (MWCD) released revised Model Foster Care Guidelines

2024. This has now permitted single individuals to foster a child and adopt after two years, doing away with the rule that limited foster care to married couples.

Key Changes Introduced by the Revised Guidelines for Foster Care

- Opening up fostering to any person:
 - o Irrespective of their marital status (single/ unmarried/ widow/ divorcee/ legally separated) and whether or not they "have biological son or daughter".
 - O However, while a single woman can foster and eventually adopt a child of any gender, a man can only do so for male children.
- Allows the foster parent to adopt a child: After s/he has been in foster care for a minimum of **two years**, as opposed to five years earlier.
- Guidelines for married couples who want to foster: No child shall be given in foster care to a couple/spouse unless they have had a stable marital relationship of two years.
 - o Earlier, there was no such caveat for couples.
- Age of the foster parents: While the 2016 guidelines stated that both spouses must be above the age of 35, the revised guidelines are more specific.

What is Foster Care?

- Fostering is an arrangement in which a child temporarily lives with either extended
- In India, children who can be fostered have to be above the age of six years living in child care institutions and having "unfit guardians"
- Minors who are placed in the category of "hard to place/ children having special

Model Guidelines for Foster Care 2016:

- These guidelines (brought by the MWCD) detail the procedures, roles and responsibilities of stakeholders, along with various aspects related to the
- Under the guidelines, children in the age group of 6-18 years,
- **Children in the age group 0-6 years** will not prefer to be considered for placement in foster care as such small children will be encouraged for adoption under the

Need to Revise the Foster Care Guidelines 2016:

- The guidelines have been revised in accordance with the amendment to
 - The Juvenile Justice (Care and Protection of Children) Act 2021 and
 - The Juvenile Justice (Care and Protection of Children) Model Rules 2022.

The age criteria to foster a child is as under:

_				
	Minimum age of PFPs		Maximum Age of PFPs	
Age of the child	Composite	Single	Composite age of	Single
	age of Married	_	Married Couple	
	Couple			
Above 6 years and upto	70 Years	35	110 Years	55 Years
12 years		Years		
Above 12 years and	70 Years	35	115 Years	60 Years
upto 18 years		Years		

Registration of the foster parents: The foster parents can now register online through a platform - Child Adoption Resource Information and Guidance System (CARINGS), which is already being used by prospective adoptive parents for registration.

Implications of the Revised Guidelines for Foster Care

- The changes might encourage more people to apply for foster care.
 - According to data with the MWCD, there were 1,653 children (as of March, 2024) in foster care in States and UTs, excluding Goa, Haryana, and Lakshadweep.
- It will give more clarity to people who are accepting a child for foster care that foster care is intended to be temporary care for a child (till the biological family is found to be capable for the child to go back).
- The changes might encourage more people to apply for child adoption.
 - Between Sept 2022 (when the Model Rules were notified) and July 2024, a total of 23 children in foster care were adopted by the families after two years of care.



Need for a Central Protection Act for Doctors

Resident doctors across India are on strike, demanding laws to ensure their safety after the rape and murder of a young doctor at R.G. Kar Medical College in Kolkata on August 9. The protests began after her body was found in the hospital's emergency building, with doctors criticizing the hospital and State government for attempting to downplay the incident. They highlight the lack of a Central law to protect healthcare workers.

Current Status

Legal provisions

- As per constitutional provisions, health and law and order are State subjects.
- Hence, it is the primary responsibility of the State government or Union Territory administration to take note of events and eventualities, and do what is necessary to prevent violence.
 - There are already 26 state laws addressing violence against healthcare workers, with provisions for cognizable and non-bailable offenses. However, these laws have not effectively deterred attacks.
- It should be noted that, the details of the number of fatalities of medical professionals due to attacks by families of patients are not maintained centrally.

Violence against healthcare workers at the workplace is not new in India

- In 1973, Aruna Ramchandra Shanbaug working as a junior nurse at King Edward Memorial Hospital, Mumbai, was sexually assaulted by a hospital sweeper.
- She died in 2015 after spending over 41 years in a vegetative state following the attack.

• Need for a safe work environment

- Experts have pointed out that medical colleges often have ill-lit corridors, poorly secured wards, and long distances between departments.
- There is an urgent need to improve working and living conditions by ensuring proper lighting, security guards, cameras, and manned walk-throughs between departments, operation theatres, and emergency areas.
- These simple measures could make a real difference.

Situation Around The World To Protect Their Medical Professionals

- **U.K.** enforces a zero-tolerance policy on violence, supported by a dedicated security team and a comprehensive reporting system.
- In the **U.S.,** some States classify assaults on healthcare workers as felonies, acting as a strong deterrent.
- Australian hospitals have introduced safety measures like security personnel, panic buttons, and mandatory de-escalation training.
- <u>India must urgently introduce a Central protection Act</u> and adopt similar measures to take stringent actions to ensure a safer environment for its healthcare workers.

Previous efforts

Healthcare Service Personnel and Clinical Establishments (Prohibition of violence and damage to property) Bill, 2019': A draft law proposed imprisonment from six months to ten years and fines ranging from Rs 50,000 to Rs 10 lakh, depending on the severity of the offense. However, this draft was rejected during consultations with the MHA.



The 2019 draft law was rejected due to concerns about overlapping provisions with the penal code, insufficient stakeholder consultation, and federalism issues. The draft was never published for public feedback.

COVID-19 Ordinance: In response to increased violence during the pandemic, the government introduced an Ordinance in 2020 amending the Epidemic Diseases Act. This Ordinance included provisions for imprisonment up to seven years and fines up to Rs 5 lakh, highlighting the severity of the issue.





Private MPs' Bills: Various private MPs have proposed similar bills over the years, including DNV Senthil Kumar (2022), and Shashi Tharoor (2023). Despite these efforts, no comprehensive central law has been enacted.

Demands of Doctors

- The Indian Medical Association (IMA) has urged the Union government to recognize and address violence against doctors at healthcare centers.
- In its list of demands, the IMA calls for <u>hospital security protocols similar to those at airports, declaring</u> healthcare centers as safe zones with mandatory security measures like CCTVs and security personnel.
- The IMA highlighted the poor working conditions of doctors, noting that the victim was on a 36-hour shift with no safe place to rest.
- It also emphasized the need for a thorough investigation of the crime, justice for the victim, identification and punishment of those responsible for vandalism, and appropriate compensation for the victim's family.

Steps Taken by the Centre

- Recently, the Ministry of Health and Family Welfare issued an order <u>requiring the head of an institution to file</u> an FIR within six hours in the event of any violence against healthcare workers on duty.
- Additionally, the National Medical Commission (NMC) has directed all medical colleges to develop policies
 ensuring a safe work environment for staff.
- The NMC also mandated that incidents of violence against medical students be promptly investigated, with an FIR filed and a detailed report sent to the NMC within 48 hours.



Olympics Case Studies

Vinesh Phogat Disqualification

Vinesh Phogat's pursuit of a gold medal at the Paris Olympics ended unexpectedly when she failed to meet the weight requirement for her women's 50kg wrestling final.

Weighing in at just over 100 grams above the limit, she also lost her chance at a confirmed silver medal.

Process of Olympic Wrestling weigh-ins (given in fig.) Weigh-in Specifics

First weigh-in

- During the first weigh-in, wrestlers will have
 30 minutes to make weight.
- Athletes will also be examined to make sure they have no signs of any contagious disease

During second day

- For any wrestlers competing on the second day, the weigh-in will last 15 minutes.
- This is a non-negotiable window during which the wrestler must make the required weight or risk disqualification.



Weight tolerance in Olympics

o No more weight tolerance will be allowed for the second weigh-in.

- o The Olympics follow a strict weight restriction without the 2kg weigh in tolerance.
 - Two kilograms weight tolerance is allowed for World Cup and for the International Tournaments (Except UWW Ranking Events).

Was a two-day weigh-in always the rule?

- o No. In 2017, the UWW changed the format of Olympic wrestling.
 - The Rio Olympics was the last time when wrestling was conducted as a single day event in a major international tournament.
- So instead of the competition in a weight category being conducted all in a day, they moved to a twoday system.
- o This was done so that athletes wouldn't lose a huge amount of weight on one day and compete.

How Do Wrestlers Cut Weight?

- In many sports with weight categories, athletes often cut weight to fit into a lower category, typically reducing up to 10% of their body mass before major events.
- The most challenging period is the 24-48 hours before the competition, where athletes must shed the final, smallest margins of weight.
- After meeting the weight requirements and completing the weigh-in, athletes rehydrate and eat to regain energy and recover the fluids and body mass lost.
- Once the competition is over, they often start the weight-cutting cycle again for the next event.

The Case Of Vinesh Phogat

Could Vinesh have salvaged a medal if she was injured?

- According to UWW, if an athlete is injured during the first day, he/she doesn't have to attend the second weigh-in and will keep his/her results.
 - o In Vinesh's case, she would have got the silver medal.
- But if an athlete is injured after Day 1 of the competition, they have to attend second weigh-in.

Boxing: Gender testing controversy

Imane Khelif, a 25-year-old welterweight from Algeria, qualified for the quarterfinals of the Olympic women's boxing tournament by dismantling Italy's Angela Carini in the round of 16. Their fight lasted just 46 seconds.

Since her victory, many call her a "biological man" who had an "unfair advantage" over Carini. Some people also wrongly identified Khelif as a transgender woman.

The participation of trans women, and women having certain "masculine" biological characteristics like higher testosterone levels, in women's sports has long been a subject of polarising debate.

Background: The Controversy

- Boxers failed gender eligibility test conducted by International Boxing Association (IBA)
 - In 2023, Imane Khelif and Chinese Taipei boxer Lin Yu-ting were banned from competing in the IBA's World Championship in New Delhi after failing a confidential "gender eligibility" test.
 - o The IBA stated that the boxers did not meet the criteria to compete in the female category.

Both boxers are competing in Paris Olympics

- o Both boxers are now competing at the Paris Olympics, as the International Olympic Committee (IOC) derecognized the IBA over governance and financial issues.
- The IOC-appointed unit governing the competition in Paris only requires the gender stated in an athlete's passport for eligibility, and Khelif's passport identifies her as female.

 The IOC also criticized the IBA's decision to ban the two women as arbitrary and not following proper procedure.

Gender Eligibility: A Contentious Issue In Women's Sports

Sex is determined based on chromosomes

- Sex is determined based on chromosomes, which carry genes. Humans have 23 pairs of chromosomes —
 22 are identical in men and women; one, the sex chromosome, is different.
- The XX sex chromosomes result in the development of female sex organs, and XY in male sex organs.

DSD and Swyer syndrome

- Some people born with female reproductive organs may also carry the XY chromosome, in what is known as Swyer syndrome.
 - This syndrome is one of many "Disorders of Sex Development", or DSDs.
 - Swyer syndrome, also known as 46 XY gonadal dysgenesis, is a rare genetic condition where individuals have one X and one Y chromosome in each cell (typically associated with males) but develop female reproductive structures.
 - People with Swyer syndrome are genetically male but phenotypically female, meaning they have a female appearance and female external genitalia.
- o This is at the heart of the debate surrounding gender eligibility in women's sports.
- Many argue that in order to prevent some athletes from having an unfair advantage in women's sports,
 women with DSDs must not be allowed to compete with other women.
 - They claim that DSDs facilitate greater testosterone production, and other consequent athletic advantages.

Steps Taken By Sports Federations Deal With This Matter

Sports federations have their own eligibility criteria

- In 2021, the IOC decided to allow international sports federations to develop their own eligibility rules based on an "evidence-based approach" considering principles of "fairness", "inclusion", "nondiscrimination", "no presumption of advantage", and "prevention of harm."
- Previously, the IOC required women athletes who had transitioned from male to female to have testosterone levels below 10 nanomoles per litre (nmol/L).
- World Athletics still uses testosterone levels as an eligibility criterion, requiring DSD athletes to maintain levels below 2.5 nmol/L for at least 24 months before competing.
 - This is stricter than the pre-2023 requirement of 5 nmol/L for events ranging from 400 meters to a mile, with no restrictions on other events.
- o FINA, the world swimming body, the International Cycling Union, and the International Rugby Union have all implemented varying degrees of bans on trans women athletes.

• Debate goes on

- There is still much unknown about the impact of testosterone on sporting performance.
- Many question whether women born with higher levels of testosterone have any different advantage compared to people with other genetic advantages, such as LeBron James' height or Michael Phelps' large, fin-like hands.



Unified Pension Scheme

The Union Cabinet has approved the Unified Pension Scheme, which will provide government employees with assured pension after retirement. The scheme will be effective from April 1, 2025.

Background

- The National Pension System replaced the Old Pension Scheme (OPS) in 2004 as part of the Centre's effort to reform India's pension policies. Those joining government service after this date were put under the NPS.
- W Under the OPS, pension to government employees both at the Centre and the states was fixed at 50% of the last drawn basic pay, with no employee contributions required.
- The government fully funded this pension and adjusted it for inflation through Dearness Allowance, to adjust for the increase in the cost of living.
- The NPS was introduced because of a fundamental problem with the OPS that it was unfunded, i.e., there was no corpus specifically for pension.
- W Over time, this led to the government's pension liability to become fiscally unhealthy. With better healthcare facilities leading to longer average lifespans, the OPS could not have continued in the long run.
- In 1990-91, the Centre's pension bill was Rs 3,272 crore, and that of all states put together was Rs 3,131 crore. By 2020-21, the Centre's pensions bill had jumped 58 times to Rs 1,90,886 crore; for states, it had shot up 125 times to Rs 3,86,001 crore.

National Pension System (NPS)

- The NPS was different from OPS in two fundamental ways. First, it did away with an assured pension. Second, it would be funded by the employee himself/ herself, along with a matching contribution by the government.
- The defined contribution comprised 10% of the basic pay and dearness allowance by the employee and the government's contribution of 14%.
- Individuals under NPS can choose from a range of schemes from low risk to high risk, and pension fund managers promoted by public sector banks and financial institutions, as well as private companies.
- For government employees, the NPS not only gave lower assured returns, it also implied employee contributions — which was not the case with the OPS. This led to opposition to the NPS
- Due to demands for a return to OPS, a committee under the chairmanship of then Finance Secretary (and now Cabinet Secretary) TV Somanathan was formed in 2023.
- » The recommendations of this committee have now resulted in the announcement of the UPS.

Unified Pension Scheme (UPS)

- The UPS aims to balance fiscal policy with employee benefits. It combines a defined benefit pension similar to the Old Pension Scheme (OPS) with the contributory nature of the NPS.
- To finance UPS, there will also be a defined contribution the **government will now contribute 18.5% of the basic salary** of employees, up from 14%, while **employees will continue to contribute 10%**.
- **Assured Pension:** Government employees with at least 25 years of service will receive a **guaranteed pension** equal to 50% of their average basic pay from the last 12 months before retirement.
- Those with fewer years of service will receive a pension proportional to their tenure(10-25yrs), with the minimum qualifying service set at 10 years.
- **Assured family pension:** In case of an employee's death, their spouse will receive a family pension amounting to 60% of the pension the employee was receiving.
- Assured minimum pension: Employees with a minimum of 10 years of service will be entitled to a minimum pension of Rs 10,000 per month upon retirement (higher than ₹9,000 under OPS and NPS).
- **Inflation indexation:** Both the assured pension and family pension will be adjusted for inflation, ensuring they keep pace with rising prices.
- **Dearness relief:** Retirees under the UPS will receive Dearness Relief based on the All India Consumer Price Index for Industrial Workers (AICPI-IW), similar to OPS.
- Lump sum payment on superannuation: In addition to gratuity, employees will receive a lump sum payment at retirement, equivalent to 1/10th of their monthly emoluments (salary + Dearness Allowance) for every six months of service completed. This payment will not reduce the amount of the assured pension.

Eligibility for UPS

 UPS applies to all those who retired under the NPS from 2004 onwards. These retirees would have their arrears adjusted with what they have already drawn under the NPS.

- Employees can choose to remain under the NPS. Once an option is selected, it cannot be changed.
- Currently, the scheme applies to central government employees, though states may adopt it as well.

Fau tha -----

Benefits of UPS

For the government

- Long-term fiscal sustainability: The UPS is designed to be more fiscally sustainable in the long run compared to OPS.
- Reduced long-term liabilities: By capping the financial burden on the government, the UPS aims to ensure a balanced approach to pension funding.
- Simplified and transparent pension structure: The UPS simplifies the management of pensions by unifying them under a single system, which also ensures equitable retirement benefits across different sectors.

For Individuals

- Increased pension security: Compared to NPS, the UPS may offer more predictable benefits and greater security for retirees.
- The scheme blends the <u>market-based returns of</u>
 <u>NPS</u> with the <u>fixed benefits of OPS</u>, including
 features such as an assured pension, inflation
 indexation, family pension, and a minimum
 pension.
- Enhanced returns: The UPS could offer better returns by leveraging the growth potential of market investments, similar to NPS, while still maintaining a base level of guaranteed income from OPS elements.
- Hybrid model with dual benefits: The UPS offers a hybrid model that combines the stability of OPS's fixed benefits with the flexibility and selfcontribution features of NPS.

Challenges

- The new scheme will entail an additional outgo of Rs 6,250 crore in the first year, and Rs 800 crore as arrears for the employees who have retired since the introduction of NPS.
- The total outgo will increase further if state government employees are onboard — as of March 2023, NPS had 23.8 lakh central government subscribers, and 60.7 lakh state government subscribers.
- The share of expenditure allocated towards pensions is already a sizeable portion of the budgets of Union and state governments.
- In 2023-24, the central and state governments had allocated Rs 2.3 lakh crore and Rs 5.2 lakh crore respectively for pensions.
- Put together, for all states and Union Territories, allocations to pension were estimated at 12% of their revenue expenditure in 2023-24.
- A return to defined benefits, which essentially involves providing generous benefits to only a tiny section of the labour force, runs the risk of not just increasing the burden on the exchequer, but also further reducing the space for spending on other avenues.

Features in Brief	UPS	NPS	OPS
Effective Date	April 1, 2025	January 1, 2004	Pre-2004
Pension Type	Assured+ Market linked returns	Market-linked returns	Assured
Pension Calculation	50% of average basic pay of last 12 months (min. 25 years service); proportionate for lesser service (min. 10 years)	Based on market performance.	50% of last drawn basic pay
Minimum Pension	₹10,000/month (min. 10 yrs service)	No minimum assured pension	₹9,000/month

Family Pension	60% of the retiree's pension	No family pension guarantee	50% of retiree's pension
Inflation Indexation	Dearness Relief based on AICPI-IW		Dearness Relief based on AICPI- IW
Lumpsum Payment	1/10th of monthly salary + Dearness Allowance for every 6 months of service (in addition to gratuity)		Gratuity
Contributory funded scheme	Yes	No	Yes



PMJDY Completes 10 Years

The Pradhan Mantri Jan Dhan Yojana (PMJDY) has completed 10 years of successful implementation. PMJDY was launched in **August 2014**, as a **national mission for financial inclusion**, by the Ministry of Finance.

Features of PMJDY

- The foremost objective of the PMJDY is to open a Basic Savings Bank Account for unbanked individuals.
 There is no requirement to maintain any minimum balance in PMJDY accounts, and these accounts earned interest on deposits like regular accounts.
- PMJDY account holders are given RuPay debit cards.
- An accident insurance cover of Rs 1 lakh was available with RuPay cards issued to PMJDY account holders. The cover is enhanced to Rs 2 lakh for new PMJDY accounts opened after Aug 2018.
- Eligible PMJDY account holders can avail overdraft (OD) facility up to Rs 10,000.
- PMJDY accounts are also eligible for Direct Benefit Transfers (DBT), Pradhan Mantri Jeevan Jyoti Bima Yojana (PMJJBY), Pradhan Mantri Suraksha Bima Yojana (PMSBY), Atal Pension Yojana (APY), and the Micro Units Development & Refinance Agency Bank (MUDRA) scheme.

Progress Of The Scheme

- As of August 2024, the number of PMJDY accounts stands at 53.13 crore including 35.37 crore accounts in rural and semi-urban areas, and 17.76 crore accounts in urban areas and total deposits at Rs 2,31,236 crore.
- More than half the PMJDY accounts (29.56 crore) are in the names of women.
- The average deposit balance in PMJDY also saw steady increase indicating steady flow of savings into the accounts. Average balance increased from Rs 1,065 in March 2015 to Rs 4,476 in March 2024, nearly quadrupling in the last decade.
- The largest share of PMJDY accounts is with public sector banks (41.42 crore accounts), followed by Regional Rural Banks (9.89 crore accounts), private sector banks (1.64 crore), and Rural Cooperative Banks (0.19 crore).
- A state wise analysis shows the most accounts have been opened in Uttar Pradesh, the most populous state (9.45 crore), and the fewest in Lakshadweep (only 9,256 accounts). There are 15 states apart from UP with more than 1 crore PMJDY bank accounts.

Impact

• The scheme, which is one of the components of the JAM trinity of PMJDY, Aadhaar, and mobile, has had a transformative impact on the financial and banking sectors of the economy.

- The opening of more than half a billion bank accounts has **increased demand for banking services**, encouraging commercial banks to expand their infrastructure in recent years.
- The number of branches of scheduled commercial banks in the country has increased by 46% to 1,54,983 in 2023 from 2013.
- Of the total 1.54 lakh branches, 35 per cent are in rural areas, 28 per cent in semi-urban areas, 18 per cent in urban areas, and 19 per cent in metropolitan areas.
- o The number of ATMs has increased by 30% to 2,16,914 (from June 2014- 2024).
- PMJDY is an example to show how digital technology can be put to use for the poor so that they also benefit from the economic growth.
 - Jan Dhan Darshak App, an integral part of PMJDY, is a mobile application that provides a citizen-centric
 platform for locating banking touch points such as bank branches, ATMs, banking correspondents (BCs),
 Indian Post Payment Banks (IPPB), etc in the country.
 - Over 1.3 million banking touch points have been mapped on the JDD App, a number that is still growing.
 - A total of 601,000 villages are mapped on the JDD app as of July 2023. Out of these, 99.7% of total mapped villages are covered with banking outlets (bank branch, banking corner, or IPPB within 5 km radius).
- The digital technological revolution widened the usability of bank accounts from a traditional deposit or credit account to a payment intermediary.
 - With the issue of over 361.4 million RuPay debit cards under PMJDY, and the introduction of UPI, the total number of digital transactions in these accounts have gone up to 16,443 crore in FY 23-24.
 - The total number of UPI financial transactions have increased to 13,113 crore in FY 2023-24.
 - Similarly, total number of RuPay card transactions at Point of Sale & e-commerce have increased from 67 crore in FY18 to 96.78 crore in FY 2023-24.
- PMJDY accounts have ensured every rupee reaches its intended beneficiary, thereby preventing systemic leakage.
 - Around 65 million PMJDY accountholders receive **Direct Benefit Transfer (DBT)** from the government under various schemes.
 - DBT and other governance reforms resulted in a gain of Rs 3.48 lakh crore in the implementation of government schemes including MG-NREGS and PM-Kisan until March 2023, according to RBI's Report on Currency and Finance.
- As of March 2024, a total of 117,701 OD accounts have been opened with a sanctioned amount of Rs 190 crore to such PMJDY account holders. The limit utilisation stands at 80.5%
- Thus, PMJDY has ensured access to credit from formal financial system for the poorest of the poor.

Way Ahead

- As PMJDY moves into the next decade it has to move beyond its focus on accounts and balances.
- Effort is needed to ensure coverage of PMJDY account holders under micro insurance schemes.
- Improving access of PMJDY account holders to micro-credit and micro investment such as flexi-recurring deposit is needed.
- The penetration of OD accounts must be improved so that PMJDY becomes a catalyst for virtuous cycle of growth and contribute towards Viksit Bharat.
- The level of financial literacy among the PMJDY account holders need to be strengthened further. This can increase the penetration of social security schemes and their awareness among the targeted population.



Sub-Classification of SC/STs

In a landmark judgement (in State of Punjab v Davinder Singh), a seven-judge Bench of the Supreme Court in a 6:1 ruling permitted states to create sub-classifications within the Scheduled Castes (SC) and Scheduled Tribes (ST) categories for providing wider protections to the most backward communities within these categories through fixed sub-quotas.

Background

- Efforts by States for Sub-Categorization- Since years, states have been trying to give wider protection to grossly underrepresented castes among SCs despite reservation by proposing separate quotas for them within the existing SC quota of 15%. (For STs; quota of 7.5%)
- Punjab Government Notification- For instance, in 1975, the Punjab government issued a notification giving first preference to the Balmiki and Mazhabi Sikh communities (two of the most backward communities in state) in SC reservations in education and public employment. This decision was met with considerable outrage and was challenged in 2004 after the apex court struck down a similar law in *E.V. Chinnaiah v State of Andhra Pradesh*.
- E.V. Chinnaiah v State of Andhra Pradesh, 2004- In E.V. Chinnaiah, the Andhra Pradesh Scheduled Castes (Rationalization of Reservations) Act, 2000 which contained an expansive list of Scheduled Caste communities in the state and the quota of reservation benefits provided to each of them- was struck down on the following grounds-
 - Sub-classification violates the Article 14 (right to equality) by treating communities within the category differently and the SC list must be treated as a single, homogenous group since they have faced discrimination since ages due to untouchability and therefore cannot be treated differently from one another.
 - It violates Article 341 of the Constitution, which empowers the President to create a list of SC communities for the purposes of reservation and states do not have the power to "interfere" or "disturb" this list even through sub-classification.
 - ✓ Article 341 empowers the President to specify the SCs in various states and union territories through a public notification and empowers the Parliament to make any subsequent modifications to this list, ensuring legislative control over the classification of SC communities.
- Dr. Kishan Pal v. State of Punjab, 2006- Following the E.V.Chinnaiah judgement, the Punjab and Haryana High Court (HC) struck down the 1975 notification. But it was re-enacted through the Punjab Scheduled Castes and Backward Classes (Reservation in Services) Act, 2006. This law too was declared to be unconstitutional by the HC in 2010 following which the Punjab government appealed to the Supreme Court and the case was referred to a 5-judge bench.
- Davinder Singh v. State of Punjab, 2014- The Bench while adjudicating upon the appeal called into question the validity of E.V. Chinnaiah ruling, noting that there are "unequals within the list of SCs, STs, and socially and educationally backward classes." Accordingly, a larger seven-judge Bench was constituted to give finality to the issue.

Key Issues Dealt by the Court and the Final Verdict

This 6-1 majority decision overturns the 2004 ruling in E.V. Chinnaiah vs. State of Andhra Pradesh (in which it had held that the SC/ST list is a "homogenous group" that cannot be divided further), fundamentally altering the landscape of reservation policies in India.

1. Are all castes in the SC list to be treated similarly?

• The court stated that the Presidential list of SCs is a "legal fiction" i.e., something that does not exist but is treated as real and existing for the purpose of law. SCs did not exist before the Constitution came into force

and was recognized to benefit its communities. This legal fiction cannot be "stretched" to claim that there are no "internal differences" among SCs.

• As there exists a "heterogeneous group" of castes, races, or tribes with varying degrees of backwardness and their inclusion in the President's List by the Parliament under Article 341(2) does not imply they are a "uniform and internally homogeneous unit".

2. Is Sub-Classification Permissible?

- Some castes within SC category are socio-economically and educationally disadvantaged, not only compared to the forward castes but also in relation to other castes within the SCs themselves.
- Since Article 14 obligates the State to ensure that the same law applies *only* to those who are "similarly situated" therefore sub-classification within the SC/ST categories does not violate Article 14.
- Sub-classification is a tool to secure substantive equality as treating the SC and STs as a monolithic block undermines the objective of reservations.
 - ✓ While formal equality treats everyone the same regardless of their inherent differences, substantive equality, on the other hand, seeks to address these differences to ensure actual fairness.
- States in exercise of their power under Articles 15(4) and 16(4) are free to identify the different degrees of social backwardness and provide special provisions (such as reservation) for the backward class of citizens.
 - ✓ Article 15(4) enables the State to make special provisions for the advancement of any socially & educationally backward classes of citizens or for Scheduled Castes & the Scheduled Tribes.
 - ✓ Article 16(4) empowers the State to provide reservation of appointments or posts in favour of any backward class of citizens which are not adequately represented in state services.
- Article 341 does not restrict the States' power to sub-classify.

3. What is the yardstick for sub-classification?

The court imposed following conditions for sub-classification-

- Sub-classification can only be done when there is "quantifiable and demonstrable data" that highlights the levels of backwardness and representation within government services.
- States will have to demonstrate a need for wider protections, bring empirical evidence, and have a "reasonable" rationale for classifying sub-groups which can be further tested in court.
- States are prohibited from earmarking 100% reservation for a sub-class to the exclusion of other castes in the President's List.

4. Does the 'creamy layer' principle apply to Scheduled Castes?

- Justice Gavai advocated for the exclusion of the creamy layer among the SCs and STs from reservation benefits. He was supported by three other judges namely- Justices Vikram Nath, Pankaj Mithal and Satish Chandra Sharma in this opinion.
 - ✓ At present, the principle of excluding the creamy layer from the fold of affirmative action only applies to Other Backward Classes (OBCs) and not the SC/STs.
 - ✓ This concept places an income ceiling on reservation eligibility, ensuring that the beneficiaries are those in a community that need quotas the most.
- Relying on the past judgements which have already extended the creamy layer principle to reservations in promotions for SCs and STs in public services, he clarified that the creamy layer criteria for SCs and STs "could be different" from that for the OBCs.
 - ✓ In 2018, a five-judge Constitution Bench in Jarnail Singh v Lacchmi Narain Gupta held that the state cannot extend reservations in promotions to individuals from the SCs and STs who belong to the creamy layer.

Dissent by Justice Bela Trivedi

Justice Trivedi, the lone dissenter on the Bench, observed that-

- States do not have the power to alter the Presidential list under Article 341 and any inclusions or exclusions from the list can be made only by Parliament.
- Sub-classifications would defeat the true import of Article 341 to eradicate any possibility of political factors dictating constitutionally mandated affirmative action.

Commitee Established for Sub-Categorization of SCs & OBCs

- In Jan 2024: The Union government had formed a five-member committee of Secretaries, chaired by the Cabinet Secretary Rajiv Gauba to assess and find a fair way to distribute benefits, programs, and initiatives (sub-categorization of SCs).
- In August 2023, The Justice G. Rohini-led Commission for the sub-categorization of Other Backward Classes (OBC) submitted report to the Central Government.

Potential Implications of Sub-Categorization

Positive Implications

- Targeted Benefits: by ensuring that the benefits of reservation reach those who need them the most and break down barriers to social and economic mobility.
- 2. Enhanced Representation: of historically disadvantaged groups in education and employment and can contribute to a more inclusive and equitable society.
- 3. Better Policy Formulation and Implementation: Subcategorization could require collection of better data on subcastes which in turn can inform more effective and tailored policies and effective allocation of resources.
- 4. Strengthened Social Cohesion: By ensuring fairer distribution of benefits, subcategorization can promote a sense of justice and inclusion within SC/ST communities and in the broader society.

Negative Implications

- 1. Division Within SC Communities: leading to conflicts and competition for resources could undermine the solidarity and unity of SCs.
- Administrative Complexity: in identifying eligible subgroups, collecting data, and allocating resources based on sub-categories could result in bureaucratic delays.
- 3. **Political Implications:** Political sensitivity of the issue could result in protests and opposition from various stakeholders.
- 4. Data Availability and Accuracy: Collecting and analyzing data on the social, economic, and educational status of different subgroups can be difficult, especially in areas with limited infrastructure and resources.
- 5. **Judicial Scrutiny:** Sub-categorization policies may face legal challenges, as they involve altering the existing reservation framework, which could lead to prolonged court battles and uncertainty.

Way Forward

While sub-categorization of SCs aims to address inequities within the community and empower the most disadvantaged groups, it presents significant challenges which require careful consideration and management to ensure that the intended benefits are realized without exacerbating existing inequalities or creating new ones. As one of the judges quoted in the above judgment- "There could be a "fresh re-look" at the policy of reservations, efforts can be made to take the country towards a casteless society like in the "primitive" times and periodic checks could be done to exclude the class of person, who after taking advantage of reservation, has come to march shoulder to shoulder with the general category."



Waqf (Amendment) Bill, 2024

A Bill seeking to amend the 1995 Waqf Act has been referred to a Joint Committee of Parliament (JCP) after receiving strong criticism from the Opposition parties for being "unconstitutional", "anti-minority", and "divisive".

What is Meant by Waqf?

- Waqf refers to a property (movable or immovable) dedicated to God for religious and charitable purposes allowing Muslims to extend their charitable deeds beyond their lifetime. The Waqf Board is reportedly the third-largest landholder in India, following the Railways and the Defence Department.
 - ✓ A non-Muslim is also allowed to create a waqf as long as the objective of creating it aligns with Islamic principles.
 - ✓ During the Muslim Rule in India, the waqf administration was decentralised and controlled by provincial and district officers, such as the Sadr-e-Subah, Sadr-e-Sarkar, and khazis.
 - ✓ There were also separate departments to look after the religious endowments, such as **Aiwan-e-Mazhabi** or **Umoor-e-Mazhabi**.
- It can be established through a formal deed or instrument, or orally or if a property has been used for religious or charitable purposes over an extended period.
- Once a property is declared as Waqf, its character changes forever, and cannot be reversed i.e. it cannot be transferred through inheritance, sold, or given away.

Types of Waqf

- 1) Waqf Al-Khairi (Charitable Waqf): The benefits are directed towards the general welfare of the Muslim community such as schools, hospitals, and mosques.
- 2) Waqf Al-Ahli (Family Waqf): The benefits are initially designated for the founder's family members, and later for charitable purposes once the family line diminishes.

Laws Governing Wagf in India

- The first piece of legislation exclusively on waqf was the Mussalman Waqf Validating Act 1913. This Act validated family waqfs (waqf-alal-aulad) without retrospective effect.
- However, after representations to the British Crown the Mussalman Wakf Validating Act, 1930, was legislated, which accorded retrospective validity to all family waqfs (waqf-alal-aulad) and extended it the whole of India.
- In independent India, the Waqf Act was first passed by Parliament in 1954. It was replaced by a new Waqf Act in 1995, which gave more power to waqf boards. The accretion of power has been accompanied by an increase in complaints of encroachment and illegal lease and sale of waqf properties.
- Waqf properties in India are governed by the Waqf Act, 1995 which provides for the appointment of a survey commissioner who maintains a list of all Waqf properties by making local investigations, summoning witnesses, and requisitioning public documents.
- Once identified, the properties are recorded in the State's official gazette, and a list is maintained by the State Waqf Board.
- In 2013, the Act was amended, conferring unlimited powers on waqf boards to claim properties in the name of Muslim charity. The amendments made the sale of waqf properties impossible, as neither the mutawwali
- Each waqf is managed by a *mutawalli* (custodian) similarly like Trusts which are managed under the Indian Trusts Act, 1882, however, unlike a trust, waqf cannot be dissolved by a Board.

- ✓ Hyderabad State had an ecclesiastical department that looked after the administration of religious and charitable endowments including waqf. As per the Islamic jurisprudence, the settler of waqf or the donor of endowed property has the power to nominate an administrator or a curator, who is known as Mutawalli.
- Any dispute related to Waqf properties is decided by a Waqf Tribunal (constituted by the state government)
 comprising of three members- a chairperson who is a state judicial officer not below the rank of a District,
 Sessions or Civil Judge, Class I; an officer from the state civil services; and a person with knowledge of Muslim
 law and jurisprudence.
- The law also has provisions for the constitution and appointment of Waqf Boards, Waqf Councils, Chief Executive Officers for Waqf Boards in the states.

About Waqf Boards

Role- Waqf Boards established in each State oversee the administration of waqf properties within their jurisdiction. Almost all prominent mosques in the country are Waqf properties and are under the Waqf Board of the state.

✓ In most states, there are separate Waqf Boards for the Shia and Sunni communities.

Composition-

- Headed by a chairperson, each Waqf board has one or two nominees from the state government; Muslim legislators and parliamentarians; Muslim members of the state Bar Council; recognized scholars of Islamic theology, and mutawallis of Waqfs with an annual income of Rs 1 lakh and above.
- The Act also mandates the appointment of a full-time Chief Executive Officer (CEO) for each Board, who must be a Muslim by faith and hold at least the rank of Deputy Secretary in the State government.

Functions-

- To manage waqf properties and take measures to recover lost assets.
- Sanction the transfer of immovable waqf property through sale, gift, mortgage, exchange, or lease with the approval of at least two-thirds of the Board members.

About Central Wagf Council

Role- It is a national advisory body under the Ministry of Minority Affairs which ensures the uniform administration of waqf properties across the country.

Composition- It is headed by the Union Minister of Minority Affairs and other members appointed by the government (all Muslims, and at least two women).

Functions- It advises the Union government on waqf-related issues, including policy development, implementation of waqf laws, and resolution of inter-State disputes.

About the Wagf (Amendment) Bill, 2024

What is the new bill about? The Bill seeks to amend the 1995 Waqf Act, proposes sweeping changes to the governance and regulation of Waqfs and renames the Act to 'United Waqf Management, Empowerment, Efficiency and Development Act, 1995'.

Objective- To overcome the shortcomings and to enhance the efficiency of the administration and management of the waqf properties.

** It shifts power from Waqf Boards/Tribunals to state governments.

Proposed Key Amendments-

- 1. Formation of Waqf- Only lawful property owners who have practiced Islam for at least five years can create 'waqf' properties by executing formal deeds, thus abolishing the 'waqf by use' concept. Widows, divorced women, and orphans will now be considered beneficiaries of proceeds from waqf assets.
 - ✓ Waqf by Use permitted a property to be considered waqf based on usage, even if the original deed was disputed as waqf properties were often dedicated orally until formal documentation became standard practice.

- 2. **Government Property as Waqf** Any Government property identified or declared as waqf property, before or after the commencement of this Act, will cease to be waqf property.
- 3. Powers with District Collector- The collector will be authorized to decide if a waqf property is government property or if the property qualifies to be a Waqf property (the act authorized waqf tribunals to determine if a property qualified as waqf). Once a determination is made, the collector must update the revenue records and submit a report to the State government.
 - ✓ Until the collector submits the final report, the disputed property cannot be treated as wagf property.
- 4. **Survey of Waqf Properties** The responsibility of surveying waqf properties has been assigned to district collectors or officers of equivalent rank who will work as per the state revenue laws.
 - ✓ A Survey Commissioner and additional commissioners surveyed the waqf under the 1995 Act.
- 5. Centralized Registration System- has been proposed for uploading all information about waqf properties within six months of the new law's enactment. Any new waqf property registrations will be submitted exclusively through this portal to the Waqf Boards.

6. Inclusion of Non-Muslim Members on Waqf Boards & Councils:

- ✓ **Central Waqf Council** It mandates two members to be non-Muslims consisting of MPs, former judges, and eminent persons and of the Muslim members, two must be women.
- ✓ Waqf Boards- The state government can nominate one person from MPs; MLAs and MLCs; and Bar Council Members to the Board. State Waqf Boards must include two non-Muslims and two women as members.
- ✓ Waqf Tribunals- The composition of waqf tribunals has been changed from a three-member body to a two-member body consisting of a district judge and an officer of joint secretary rank to the State government. The tribunals must now resolve disputes within six months, with a possible extension of an additional six months.
- 7. **Judicial Review** Aggrieved parties can appeal directly to the concerned High Court against Waqf tribunal decisions within 90 days.
 - ✓ Tribunal decisions are final under the act and appeals against its decisions in Courts are prohibited.
- 8. **Powers of the Central Government-** to make rules regarding registration; publication of accounts of waqf; publication of proceedings of waqf Boards and audit of accounts by the CAG or a designated officer.
- 9. **Separate Waqf Boards** for Bohra, Aghakhani, Sunni and Shia sects can be established if Shia waqf constitute more than 15% of all waqf properties or waqf income in the state.
- 10. **Annual Contribution to Board-** Annual contribution payable to the Board by mutawalli of every waqf having the net annual income of not less than five thousand rupees has been reduced from 7% to 5%.

Criticism

- Autonomy of Waqf Boards: The bill undermines the autonomy of Waqf Boards by giving more power to central government in the management of Waqf properties. Increased government intervention could lead to inefficiencies and reduce local accountability.
- Infringes Upon the Right to Freedom of Religionguaranteed under Article 25 of the Constitution. The rights vested in waqf properties hundreds of years ago cannot be taken over by executive officers without fair judicial determination.

Potential Benefits

- Streamlined Administration: Enhanced Transparency and Accountability: in the management of Waqf properties by introducing more rigorous oversight mechanisms could help prevent misuse of power, mismanagement and corruption and ensure effective use of properties.
- Revenue Generation: Better management could lead to better utilization of Waqf assets and result in increased revenues which can

- Procedural Concerns: The bill was introduced without adequate consultation with stakeholders, including representatives of the minority communities, civil society organizations (CSOs), Waqf Board members and legal experts.
- Reduced Local Control: in the management and administration of Waqf properties could lead to ignorance of specific needs and priorities of local communities and resistance from local boards, community leaders, and other stakeholders.
- Increased Bureaucratic Interference: in decisions involving Waqf properties could slow down decision-making processes and increase administrative burdens for Waqf Boards.

- be reinvested into the community through various charitable and religious initiatives.
- Legal Clarity & Regulation of Property Transactions: By addressing the ambiguities and inconsistencies in existing laws related to Waqf properties, the bill can reduce disputes and litigation.
- Improved Dispute Resolution: Provisions for better mechanisms for resolving disputes related to Waqf properties can lead to quicker and more efficient resolution of conflicts, benefiting both the Waqf Boards and the communities they serve.

Conclusion

While the amendments in the age old Waqf Act are a positive step towards- achieving social justice and gender equity by including representation of women and marginalized groups; improved administration by leveraging technology to manage Waqf Properties and making the system transparent and accountable, it is crucial to address the concerns of all stakeholders and implement measures that adequately protect waqf properties.



Disaster Management Bill, 2024

The Disaster Management (Amendment) Bill, 2024 was recently introduced in the Lok Sabha.

About the Disaster Management (DM) Bill, 2024

What is the New DM Bill?

The Bill seeks to amend the DM Act 2005 and mainstream disaster management in the development plans, aligning with the recommendations of the 15th Finance Commission.

- ✓ The DM Act 2005 was enacted to provide for the effective management of disasters and established- (i) National Disaster Management Authority (NDMA), (ii) State Disaster Management Authority (SDMA), and (iii) District Disaster Management Authority (DDMA).
- √The Act led to the creation of a National Institute of Disaster Management (NIDM) an institute meant for disaster-related research, training, awareness, and capacity building.
- ✓ The Act was followed by a National Disaster Management Policy in 2009 and a National Disaster Management Plan in 2016.
- ✓ The new Bill strives to look beyond moral obligatory framework to empower its citizens to claim certain minimum relief and made it legally obligatory for the state to disburse relief timely and effectively.

Objectives-

- to bring more clarity and convergence in the roles of Authorities and Committees working in the field of disaster management;
- to provide statutory status to National Crisis Management Committee (NCMC- the nodal body for dealing with major disasters with serious or national ramifications) and the High-Level Committee (HLC- provide financial assistance to state governments during disasters); to strengthen & empower NDMA and SDMA;
- to create disaster database at national and state level;

- to establish Urban Disaster Management Authority (UDMA) for State Capital and large cities having Municipal Corporation; (except the union territories of Delhi and Chandigarh.)
- to constitute the State Disaster Response Force (SDRF). (a mechanism that is already in operation in several states like Odisha and Gujarat.)

Key Amendments

- 1. **Definition of Disaster Management-** is now inclusive of Disaster Risk Reduction (DRR) through reduced exposure to hazards; reduced vulnerability of people, property, infrastructure, etc. And improved preparedness, resilience, and response capacity.
- 2. Preparation Of Disaster Management Plans- Under the DM Act, the National Executive Committee (NEC) and a State Executive Committee (SEC) prepare the national and state disaster management plans which are then approved by the NDMA and SDMA.

Under the proposed bill, NDMA and SDMA will now prepare disaster management plans. The national plan should be reviewed every three years and updated at least once every five years.

3. Functions of NDMA and SDMA

Under the DM act

- 1. Reviewing the disaster management plans of government departments;
- Setting guidelines for preparation of disaster management plans for authorities below them, and;
- 3. Recommending provision of funds for disaster mitigation.

Proposed bill adds the following functions

- 1. Taking periodic stock of disaster risks, including emerging risks from extreme climate events;
- 2. Providing technical assistance and recommending guidelines for minimum standards of relief to below authorities;
- 3. NDMA will recommend compensation amounts in case of loss of lives, damage to homes and property, and loss of livelihoods.
- 4. Preparing national and state disaster databases with information ontype and severity of disaster risks; allocation of funds and expenditure; and disaster preparedness and mitigation plans.
- 5. Assessing disaster preparedness of states and undertaking postdisaster audit of preparedness and response.
- 4. **Urban Disaster Management Authorities (UDMA)-** will be constituted by the state governments comprising of the Municipal Commissioner as the chairperson, the District Collector as the vice chairperson to prepare and implement the disaster management plan for concerned area.
- 5.**State Disaster Response Force (SDRF)-** The DM act established the National Disaster Response Force (NDRF) for specialist response to disaster situations.

The bill empowers the state governments to constitute SDRF, define its functions and prescribe the terms of service for its members.

6. Statutory status to pre-existing committees- like NCMC and HLC.

- NCMC with Cabinet Secretary as its chairperson will function as the nodal body for dealing with major disasters with serious or national ramifications.
- The HLC will provide financial assistance to state governments during disasters through the National Disaster Mitigation Fund. The minister of the department with administrative control over disaster management will serve as its chairperson.
- 7. **Empowers NDMA (Enhanced role)-** Under the act, the central government provided NDMA with officers, consultants, and employees, as it considered necessary.

The bill empowers NDMA to specify the number and category of officers and employees, with previous approval of the central government and it may also appoint experts and consultants.

- 8. Expanded Powers for Central and State Governments: The bill adds a new Section 60A empowering both the Central and State Governments to direct individuals to take necessary actions or refrain from actions that could reduce the impact of a disaster, with penalties for non-compliance not exceeding ₹10,000.
- 9. **Broadened Definition of Disaster Management**: The definition of "disaster management" has been expanded to include "disaster risk reduction," reflecting a proactive approach that emphasizes not just response and recovery but also prevention and mitigation.
- 10. **Man-made disasters**: The original Act defined disasters as any "catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes".

The Bill clarifies that the phrase "man-made causes" does not include any law-and- order-related situation. Therefore, loss of lives, suffering, or property damage in a riot, for example, would not invoke provisions of this law.

11. **Absence of vice-chairperson**: The NDMA is headed by the Prime Minister as chairperson and a vice-chairperson, in the rank of a Cabinet Minister, is supposed to be responsible for day-to-day functioning.

The Bill legitimizes this position by allowing for the day-to-day functioning to be carried out by any Member designated by the chairperson or the vice-chairperson.

Significance and Concerns Raised about the Disaster Management Bill, 2024

Significance

- Enhanced Disaster Preparedness: with the help of comprehensive national and state disaster database, which can improve disaster response efficiency by providing real-time data on risks and preparedness levels.
- Focus on Emerging Threats: of climate change-induced disasters
- Strengthened Local Governance: with the establishment of Urban Disaster Management Authorities, which will enhance disaster management capabilities at the local level.
- Improved Disaster Response: with the constitution of SDRF, which will improve the capacity of state governments to respond effectively to disasters.
- Better Coordination among Authorities: Granting statutory status to NCMC and HLC will allow effectively, them to operate potentially reducing delays and coordination improving during disasters.

Concerns Raised

- Over-Centralization: Increased powers granted to the NDMA could lead to centralization of disaster management efforts, limiting the role of local governments.
- ** The Bill faces scrutiny over its constitutionality, as disaster management is not explicitly mentioned in the Constitution's Concurrent List.
- Limited Focus on Community-based Approaches: for disaster management approaches, which can be crucial for effective disaster response.
- **Financial Resources:** The implementation of the Bill will require significant financial resources, and there may be concerns about the availability of adequate funding.
- Implementation Challenges: Establishment of SDRF and the creation of comprehensive databases will require significant resources and coordination resulting in implementation challenges particularly in states with limited resources.
- Possible Bureaucratic Delays: Increased number of committees and authorities might lead to bureaucratic issues like overlapping responsibilities, jurisdictional conflicts and coordination challenges, hampering rescue and relief work.
- Privacy and Data Security: with the creation of extensive disaster databases particularly if sensitive information is not adequately protected.
- NDMA: Without a vice-chairperson, the NDMA has been deprived
 of the political heft necessary to deal with states and other central
 government agencies. Also, it hasn't been given any administrative

	financial powers and must route every small decision through the
	Home Ministry resulting in delays.

Conclusion

While the Disaster Management (Amendment) Bill, 2024 introduces significant improvements to India's disaster management framework, it also raises several concerns. Therefore, effective execution and clear delineation of responsibilities will be crucial to realizing the full benefits of this legislation.



Special Assistance to States for Capital Investment & Land Reforms

The Centre has decided to provide special assistance to states under the Scheme for Special Assistance to States for Capital Investment 2024-25. Rs 10,000 crore will be given for implementing land-related reforms in rural and urban areas, and Rs 5,000 crore for creating a Farmers' Registry during the financial year 2024-25 (FY25).

About the Scheme for Special Assistance to States for Capital Investment 2024-25

It is a financial initiative by the Government to boost capital expenditure by state governments and encourage them to undertake infrastructure development projects, thereby contributing to economic growth and development.

- ** The scheme was originally launched as the Scheme for Special Assistance to States for Capital Expenditure in 2020-21. States must ensure that the loan is used to supplement their capital expenditure (capex) and not to substitute it.
- ** Capital expenditures (CapEx) are funds used by a company to acquire, upgrade, and maintain physical assets such as property, plants, buildings, technology, or equipment. CapEx is often used to undertake new projects or investments.

Objective-

- To Boost Capital Investment in States to drive their economic growth and create jobs.
- Enhance infrastructure development across various sectors.
- Incentivize States to implement citizen-centric and sector-specific reforms.
- To reduce their fiscal burden and facilitate capital investment.

Conditions and Eligibility

- All States and Union Territories are eligible to participate in the scheme and fund allocation is based on States' performance in implementing reforms and utilizing previous allocations effectively.
- To avail of the capex loan, states would have to retain the official name of all schemes.
- States will have to deposit the central share of interest earned in Single Nodal Agencies (SNA) accounts till March 31, 2024 in the Consolidated Fund of India.
 - ✓ The Single Nodal Agencies (SNA) model requires states to notify an SNA for each Central Sector Scheme (CSS) to receive funds from both the Centre and from state budgets.

Key Features-

- **Financial assistance:** will be given to state governments in the form of 50-year interest-free loans for capital investment projects. The amount of Rs. 1,30,000 crores have been allocated for this purpose in the financial year 2024-25.
- **Divided into Multiple Parts:** The scheme has eight parts, Part-I being the largest with an allocation of Rs. 55000 crores. This amount has been allocated amongst States in proportion to their share of central taxes

& duties as per the award of the 15th Finance Commission. Other parts of the scheme are either linked to reforms or are for sector specific projects. (Example: Part-III and IV provide incentives to states for reforms in urban planning)

- **Milestone-linked reforms:** A portion of the assistance (Rs. 75,000 crore) is linked to the completion of specific milestone-linked reforms by the state governments in citizen-centric and sector-specific areas to encourage a competitive spirit among states, motivating them to prioritize infrastructure development.
- ✓ The scheme also aims to enhance the pace of projects in key sectors such as Urban Planning; Jal Jeevan Mission (Jal Kranti Abhiyaan) and Pradhan Mantri Gram Sadak Yojana by providing funds for meeting the state share.
- Flexibility: States have flexibility in choosing projects within approved sectors.
- **Conditional Release:** Funds released in tranches based on progress made in reforms and project implementation.
- Focus on Productive Sectors: like health, education, irrigation, water supply, power, roads, bridges and railways that can generate employment, increase productivity, improve the overall quality of life for citizens and promote investments.
- **Monitoring and Evaluation**: This will be done regularly by the central government to ensure that the funds are being used effectively and that the projects are completed on time.

Promises on Land Reforms Made in the Union Budget 2024-2025

- 1. Digitization and Modernization of Land Records
 - Unique Land Parcel Identification Number (ULPIN): assigning ULPIN or Bhu-Aadhaar to all land parcels, ensuring a unique identifier for each piece of land.
 - Digitization of Cadastral Maps: for providing accurate and up-to-date land records.
 - Digital Public Infrastructure (DPI) in Agriculture: to cover all farmers and their lands within three years.
- 2. Improved Land Administration
 - Streamlined Land Transaction Processes: to reduce delays and costs.
 - Reduced Land Disputes: through improved land records and transparent processes.
 - Enhanced Land Governance: to ensure equitable access to land resources.
- 3. Technological Interventions
 - Satellite Imagery & GPS with GIS Mapping: will be promoted for accurate land surveys, mapping.
 - Digital Platforms: to facilitate land transactions and access land records.

Significance of Actions on Reforms around Land

- Economic Growth & Reduced Conflict: by improving land productivity, facilitating investment, and reducing land disputes to contribute to peace and stability.
 - ✓ SVAMITVA (Survey of Villages and Mapping with Improvised Technology in Village Areas) scheme aims to provide an integrated property validation solution for rural India.
- **Social Justice:** by addressing social inequalities and ensuring equitable access to land resources, thus, empowering marginalized communities and reducing poverty.
- Environmental Sustainability: by implementing policies that encourage sustainable agriculture, afforestation, and conservation, land reforms can help prevent land degradation, protect biodiversity, and mitigate climate change.
- **Improved Governance:** by improving transparency, accountability, establishing clear land tenure systems and reducing corruption.

Challenges Towards Implementing Actions on Land Reforms

- Resistance from Landlords: due to the fear of losing their power and wealth. They often try to wield significant social and political influence, making it difficult for governments to implement reforms against their interests.
- **Political Gains**: Prioritizing short-term political gains over long-term sustainable development leads to a lack of political will to implement comprehensive land reforms.
- Implementation Challenges: Due to bureaucratic delays, corruption, lack of resources and awareness among farmers can make it difficult to implement reforms effectively.
- Land Disputes: Existing land disputes can complicate the implementation of land reforms, as it may be difficult to resolve these disputes before implementing new land tenure systems.
- **Social and Cultural Barriers**: Caste and class inequalities can hinder the implementation of land reforms, as marginalized communities may face discrimination and exclusion.
- **Financial Constraints**: in implementing land reforms, as it may require significant investments in infrastructure, education, and support services for farmers.
- **Technical Challenges**: such as incorrect geographical coordinates in land maps, different mapping projections used by different states resulting in incompatibility and lack of technological support and upgrading.

Extra Mile: Land Reforms Over the Years

- 1. **Abolition of Zamindari System (1950s)-** to eliminate the feudal landholding structure. It transferred land ownership directly to the tillers, intending to empower farmers and increase agricultural productivity.
- 2. Tenancy Reforms (1950s)- like capping the rent paid by tenants to landlords, typically at one-fourth to one-third of the crop yield and protecting tenants from arbitrary eviction to ensure secure tenure for tenant farmers and promote agricultural productivity.
- 3. Land Ceiling Acts (1960s-1970s)- The Kumarappan Committee (1941) recommended the maximum size of lands a landlord can retain which was three times the economic holding i.e. sufficient livelihood for a family. By 1961-62, all the state governments had passed the land ceiling acts but the ceiling limits varied from state to state. Therefore, to bring uniformity across states, the Land Ceiling Act 1971 was introduced to limit the size of landholdings and the redistribution of land.
- 4. Forest Rights Act, 2006- recognized the rights of forest-dwelling communities, including tribal people, to access and use forest resources. This aimed to address the historical injustice faced by forest-dwelling communities and promote sustainable forest management.
- 5. Digital India Land Records Modernization Programme (DILRMP)- was launched in 2016 to create a comprehensive, transparent, and easily accessible digital record of land ownership to reduce land disputes, facilitate easier transactions, and improve governance.
- 6. **Unique Land Parcel Identification Number (ULPIN)**: launched in 2021 provides each land parcel with a unique ID, like Aadhaar for individuals, to improve land management and reduce disputes.
- 7. The Ministry of Panchayati Raj introduced "**Gram Manchitra**," a Geographic Information System (GIS) app. Additionally, the Ministry launched "**mActionSoft**," a mobile-based solution for geo-tagging project assets.



Hamas Chief Assassinated

Hamas leader Ismail Haniyeh was assassinated in the **Iranian capital Tehran** early on July 31. The 62-year-old leader, who had been <u>managing Hamas's political operations from exile in Qatar</u>, reportedly died in what Hamas described as an Israeli "strike" on his residence.

Key Takeaways From Assassination Of Hamas Chief

Ismail Haniyeh, the Qatar-based public face of Hamas. killed in Iran

- It might mark a defining moment in the ongoing war between Israel and the Palestinian militant group.
- As a result, Iran has vowed to avenge the killing.
- This also signals that <u>Hamas leaders</u> are not safe in Iran and in Iran's protection.
 - In April this year, Iran and Israel had exchanged a round of missile and drone attacks at each other.
 - Temperatures had cooled since then, but this assassination has the potential to trigger further hostilities.

Wider conflict in the Middle East

ABOUT HAMAS



- It is the largest Palestinian militant Islamist group and one of the two major political parties in the region. Currently, it governs more than two million Palestinians in the Gaza Strip.
- The organisation, however, is also known for its armed resistance against Israel
- Hamas as a whole, or in some cases its military wing, is <u>designated a terrorist group by Israel</u>, the United States, the European Union, the United Kingdom, and other countries.

INDIA'S STAND ON HAMAS

- > So far, India has not declared Hamas as a terrorist organisation.
- New Delhi neither recognizes Hamas nor describes it as a terrorist group but pursues a delicate balance between its support for the Palestinian cause and opposition to terrorism.
- ➤ After the 7 October attack, PM Modi expressed deep shock and solidarity with Israel. However, he did not mention Hamas or Palestine.
- Since then, India has spoken of the need for a two-state solution to the wider Israel-Palestine conflict.
- The killing, hours after an Israeli strike on the Lebanese capital Beirut, heightens fears of wider conflict in the Middle East.
 - Hezbollah had confirmed that its commander Fuad Shukr was killed in that strike.

For Israel - a success

- On October 7, 2023, Hamas killed at least 1,200 Israeli civilians and military personnel, and took about 250 hostages.
- Since then, the Israeli military has pounded Gaza with air strikes and ground operations, with the stated aim of going after Hamas leaders.
- From the Israeli point of view, this is a major victory in its mission to neutralise Hamas a stated objective behind launching the **Operation Swords of Iron**.
- o Haniyeh is the most highly placed Hamas figure to have been killed so far.

• For Hamas - a provocation

- o From Hamas' perspective, however, this is a major provocation since Haniyeh was the head of its political bureau, based in Qatar.
- He was the public face of Hamas, and was negotiating the terms of the hostages deal and the ceasefire.
 - Yahya Sinwar is the military leader who was responsible for the October 7 attacks.

• Pressure on Newly elected President of Iran

- Within Iran and Hamas, there will now be calls for avenging Haniyeh's death.
- o These are certain to put pressure on the newly-elected moderate President Pezeshkian.
- The president's election campaign focussed on beginning negotiations with the West, primarily for economic reasons given how damaging Western sanctions have been for Iran. He would have hoped to restart dialogue with Europe, to begin with.

o But, with Haniyeh's assassination, Pezeshkian will be under pressure from the IRGC (*Islamic Revolutionary Guard Corps*) and the hardliners in the Iranian establishment to respond in kind.

West Asia a tinderbox

- For the region as a whole, the assassination is not good news, especially if Iran and Hamas escalate the war. Such an escalation will impact all of West Asia.
- Qatar, Turkey, and the Yemeni Houthis have already condemned the assassination, and the top regional players like Saudi Arabia, UAE are watching the events closely.

• India to carefully frame its response

- o India is cautious about responding to the situation involving Hamas leaders due to the complexity of a targeted assassination on foreign soil.
- New Delhi's primary concern is maintaining peace and stability in the region, which hosts about nine million Indian expatriates and supplies almost two-thirds of India's crude oil.



Bangladesh PM Sheikh Hasina Quits

- Sheikh Hasina has resigned as Bangladesh's Prime Minister amid violent protests demanding her departure.
 - The Bangladesh Army, led by General Waker-Uz-Zaman, took the control.
- Later, the Nobel Peace Prize-winning economist
 Muhammad Yunus has been sworn in as the head of Bangladesh's interim government.

Sheikh Hasina's Exit From Dhaka And Its Impact On India

India has lost a trusted partner in the region

- Sheikh Hasina's departure after 17 years means India has lost a trusted regional partner.
 - Even after her re-election for the fourth consecutive time earlier this year, Hasina's first port of call for a bilateral visit was India.
- She was a friend to India, collaborating closely on countering terrorist groups in Bangladesh.
 - Hasina has been sensitive to India's security concerns.
- With Hasina as the PM, Bangladesh and India achieved a historic land boundary agreement on an issue festering for decades.
- o The countries share electricity and fuel, and India is the first responder for Bangladesh.

Strong China

 A strong Chinese presence in Bangladesh poses a significant challenge for India, potentially leaving it encircled by unfriendly or indifferent neighbors:

China and Pakistan to the west and north

communist-led Nepal Taliban-controlled Afghanistan

anti-India Maldives

potentially ambivalent Bangladesh

Background

 Bangladesh had been facing significant protests for the past month over the job quota system.

The protestors opposed to the return of a 30% quota in government employment at all levels for those who fought for the freedom of Bangladesh from Pakistan, as well as their children and grandchildren.

- These protests were the largest since Sheikh Hasina was re-elected for her fourth consecutive term since 2008.
- While she has overseen economic growth, her crackdown on the Opposition, media, and civil society has led to widespread unpopularity.
- The youth-led protests became the tipping point for her resignation.
- Later, Hasina resigned and fled to India on a military aircraft, following weeks of anti-government protests that have left at least 300 dead and hundreds injured.

- This situation would be detrimental to India's strategic and security interests.
 - Recently, India offered to help out Bangladesh on the Teesta Reservoir Project, which China has been eyeing.
 - The location of the project, close to the Siliguri Corridor or the Chicken's Neck, is of strategic concern for India.

India faced security issues when Bangladesh Nationalist Party (BNP) was in power

- o During the BNP rule, anti-India activities grew significantly. The BNP, led by Begum Khaleda Zia, used an anti-India stance as a major election plank.
 - This resonated with many Bangladeshis who felt India was interfering in their internal politics.
- The BNP's anti-India rhetoric was further amplified by its alliance with Islamic groups like Jamaat-e-Islami between 2001 and 2006.
 - Several ethnic insurgent groups that troubled northeast India, like the Ulfa, operated from Bangladesh during this time.
- The recent 'India-Out' campaign is another example of the BNP's stance, where some of its leaders openly voiced their opposition against their neighbour.
- o Hence, India will be worried about what attitude the new government will take towards India.

Border Security Concern

- New Delhi cannot afford to have another front open when the LoC and the border with Pakistan is hot again, and the Indian Army is in a long standoff with the PLA in eastern Ladakh.
- The Myanmar border is also extremely volatile, and the source of unrest and strife in India's Northeast.

• Islamist extremism could return to Bangladesh

- As per various analysts, the ousted Prime Minister Sheikh Hasina represented a secular and modernizing vision of Bangla nationalism.
- Her firm politics served as a strong barrier against radical extremism, which posed significant security challenges for India and threatened to push Bangladesh in a regressive direction.

• Future of transit

- Transit and trans-shipment arrangements with Bangladesh may be revised by the incoming regime in Dhaka.
- o India needs these for better logistics supply to its Northeast. New Delhi, therefore, must work with the interim govt to ensure their continuity.

India's Stand During The Crisis

Bangladesh protests - its internal matter

o India described the violent protests in Bangladesh as an internal matter of that country.

• India has been naturally supportive towards Hasina

- New Delhi has tacitly supported Sheikh Hasina despite her undemocratic practices.
- The West has criticized her crackdown on civil society, the opposition, and the media, calling for an end to her authoritarian methods.
- India's backing of Hasina, even amid allegations of election rigging, has created tensions between India and the West.

Can India Build Strong Relations with Bangladesh's New Leadership?

 India continues to engage with Bangladesh's interim government, as demonstrated by the Indian High Commissioner's attendance at the swearing-in ceremony.

- However, several challenges complicate India's relationship with the new regime.
- Firstly, Sheikh Hasina's presence in India is causing suspicion in Dhaka, and India may prefer her to leave until tensions ease.
 - o If the new government demands her extradition, it could create further complications.
- Secondly, potential elections could bring the BNP to power, and India has had a difficult experience with the BNP government from 2001-2006, when Bangladesh harbored anti-India groups and aligned with China and Pakistan.
- Lastly, PM Modi's appeal for the safety of Hindus and minorities in Bangladesh, along with the establishment
 of a committee to ensure their protection, is being viewed as partisan in Dhaka, potentially straining relations
 further.

India – Bangladesh Bilateral Relationship

 India and Bangladesh share bonds of history, language, culture, and multitude of other commonalities.

Historical Ties:

- India's relationship with Bangladesh dates back to the 1971 Bangladesh Liberation War when India provided crucial military and material assistance to help Bangladesh gain independence from Pakistan.
- However, the relationship deteriorated in the mid-1970s due to boundary disputes, insurgency, and water-sharing issues, especially after military regimes took control in Bangladesh.
- Stability in bilateral relations was restored when Sheikh Hasina became Prime Minister in 1996, leading to the signing of the Ganga Water Sharing Treaty.



 Since then, India and Bangladesh have strengthened their cooperation in various sectors, including trade, energy, infrastructure, connectivity, and defense.

Economic and Commercial Ties:

- Bangladesh is India's 25th largest trading partner, with the size of the bilateral trade at \$12.9 billion.
- The trade is dominated by exports, with Bangladesh being India's eighth largest export partner.
- In FY24, India's exports to Bangladesh contracted 9.5% to \$11 billion.
 - Bangladesh is also a key destination for Indian auto exports, alongside African and Latin American countries.
- Bangladesh is the biggest export destination for India's cotton, accounting for 34.9% of India's total cotton exports (\$2.4 billion in FY24). Other major Indian exports to Bangladesh are petroleum products and cereals.

- o India's top import from Bangladesh are readymade garments, amounting to \$391 million in FY24. In recent years, Bangladesh has emerged as a major global hub for textiles.
- In 2022, both countries completed a joint feasibility study on a Comprehensive Economic Partnership Agreement (CEPA).
- This agreement is crucial as Bangladesh will lose its Least Developed Country (LDC) status after 2026,
 which will impact its duty-free and quota-free access to Indian markets.
- o Consequently, Bangladesh aims to finalize a Free Trade Agreement (FTA) with India.

Power and Energy:

- o Bangladesh imports 1160 MW of power from India.
- Projects like the Maitree Super Thermal Power Plant and India-Bangladesh Friendship Pipeline are key initiatives.
- India supports Bangladesh's energy sector through various partnerships.

• Development Partnership:

- India has extended three Lines of Credit to Bangladesh amounting to USD 8 billion for infrastructure development.
- High Impact Community Development Projects (HICDPs) are a significant part of India's assistance, focusing on human resource development and capacity building.

Cultural Cooperation:

- Cultural exchanges are facilitated through the Indira Gandhi Cultural Centre and Indian Cultural Centre in Dhaka.
- o Programs in arts, dance, and language promote people-to-people contacts.
- The Bangladesh Youth Delegation program attracts young talent to visit India.



PM Modi's Visit to Ukraine

PM Modi met Ukrainian President Volodymyr Zelenskyy in Kyiv, marking a significant diplomatic milestone amidst the Russia-Ukraine war. It was the first-ever visit to Ukraine by an Indian prime minister after Ukraine became independent in 1991.

Key Highlights Of The Visit

Reiterated India's support for peace

- PM Modi reiterated India's support for peace, mentioning that <u>India is not neutral but is in favour of peace</u>.
- He highlighted India's tradition of non-violence from Buddha and Gandhi.

Expressed sorrow over the loss of innocent children in the conflict

 Modi visited the Martyrologist Exposition at the National Museum of History of Ukraine and expressed sorrow over the loss of innocent children in the conflict.

India presented four BHISHM Cubes to Ukraine

 PM Modi presented four BHISHM Cubes to Ukraine, which include medical equipment and supplies for emergency treatment and surgery.

- o <u>BHISM stands for Bharat Health Initiative for Sahyog Hita & Maitri</u>. It is a mobile hospital aimed at providing emergency medical care to Ukraine.
 - Bhishm was initiated under the umbrella of Project Aarogya Maitri, a programme to provide crucial medical supplies to developing nations for humanitarian aid.
 - The purpose is to deliver all basic facilities and equipment for providing emergency medical care in an easy to use and rapidly deployable manner.
- This **mobile hospital** consists of <u>all essential medicines and equipment in cubical boxes that are each of 15 inches, in a well-organised manner.</u>

Four landmark agreements were reached

o India and Ukraine signed four agreements to provide for cooperation in <u>agriculture, medicine, culture & humanitarian assistance.</u>

Significance Of This Visit

- PM Modi's visit to Kyiv marks a significant diplomatic shift for India, as it re-engages with Ukraine and asserts itself in the global geopolitical landscape amid the ongoing Russia-Ukraine war.
- This visit highlights three key developments:

• India's Role in European Peace Efforts

o This positions India as a more active participant in resolving the conflict, especially in the Global South.

Diplomatic and Strategic Space

- Modi's visit signals India's intention to play a more proactive role in shaping global power dynamics, particularly in Europe.
- This is contrasted with China's growing influence in the region and the U.S.'s evolving stance on its involvement in European security.
 - Ukraine is not only about renewed contest between Russia and the West but also about the role of Delhi and Beijing in Europe.

Reviving India-Ukraine Relations which had been neglected post-Soviet Union

• The commitment to a strategic partnership, along with economic, defense, and cultural cooperation, represents a significant renewal of the relationship between the two nations.

India – Ukraine Bilateral Relation

Political Relation

- o India recognized Ukraine as a sovereign country in December 1991 and established diplomatic relations in January 1992.
- The Embassy of India in Kyiv was opened in May 1992.
- India and Ukraine enjoy warm and friendly relations and cooperate in areas like Education, Mutual Legal Assistance and Outer Space cooperation.

Economic relation

- In the first half of 2024 the volume of bilateral trade amounted to 1.07 billion USD. Export of goods from Ukraine 0.41 billion USD, import of goods from India 0.66 billion USD.
 - The negative trade balance for Ukraine amounted to 0.25 billion USD.
 - The top commodities exported from Ukraine to India were fats and oils of vegetable origin, maize, hard coal, anthracite.
 - Main Indian commodities imported to Ukraine were pharmaceutical products, mineral fuels, petroleum and distillation products, flat-rolled steel, electrical machinery.

• Defence Relation

- O Ukraine has been a source of military technology and equipment for India since its independence.
- o Ukraine manufactures the R-27 air-to-air missiles which are in use by the IAF on its SU-30MKI fighters.

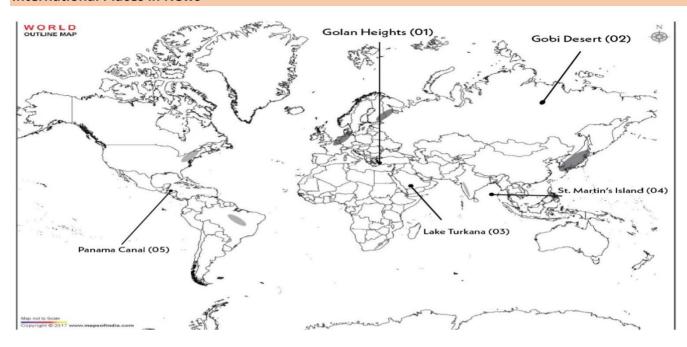
Cultural Relation

- There is a great interest in Indian culture in Ukraine at the public level, covering various aspects such as dances, yoga, philosophy, Ayurveda and spirituality.
- o There were about 18,000 Indian students studying in Ukraine, mainly in the field of medicine.

India must continue to carefully navigate its stance on the Russia-Ukraine issue. While maintaining its strategic relationship with Russia, India should also express concern for Ukraine's sovereignty and territorial integrity. At the same time India should continue to emphasise its policy of non-alignment so that it can avoid being drawn into geopolitical conflicts that do not directly serve its national interests.

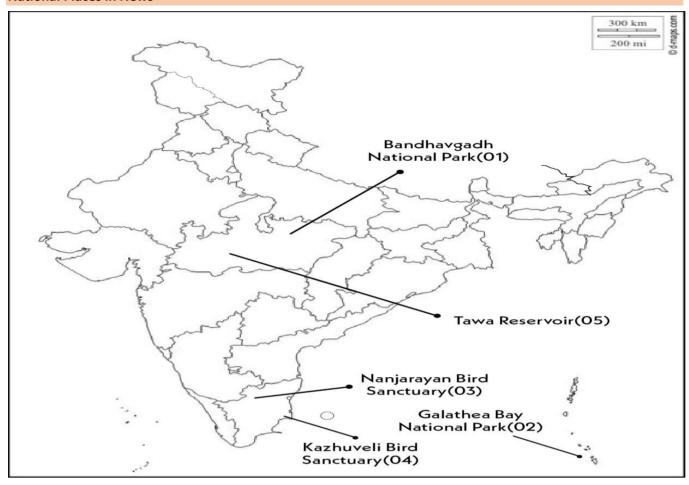
MAPS: PLACES IN NEWS

International Places in News



1	Golan Heights	Israel conducted air strikes on Lebanon-based Hezbollah. Golan Height is a strategic basaltic plateau in the southwest corner of Syria. It's considered occupied territory under international law and UN Security Council resolutions. It is bordered by the Yarmouk River in the south, the Sea of Galilee and Hula Valley in the west, the Anti-Lebanon mountains with Mount Hermon in the north, and Wadi Raqqad in the east.
2	Gobi Desert	China is set to build the world's first nuclear power plant using molten thorium salt in the Gobi Desert. Gobi Desert is a vast, arid region in northern China and southern Mongolia. It has a cold desert climate with hot summers and very cold winters. Rainfall is scarce. It's known for its dunes, mountains and rare animals such as snow leopards and Bactrian camels.
3	Lake Turkana	First comprehensive survey in last 50 years has been released about Lake Turkana. Lake Turkana is located in the Great Rift Valley in northern Kenya, extending into southern Ethiopia. Lake Turkana is Africa's 4 th largest lake. It is the world's largest permanent desert lake and the largest alkaline lake. The lake is surrounded by volcanic rock and desert.
4	St. Martin's Island	Former Bangladeshi Prime Minister Sheikh Hasina reportedly claimed that the US sought to acquire the island in exchange for political support. It is located in the north-eastern part of the Bay of Bengal. Saint Martin's is located at the southern tip of the Cox's Bazar-Teknaf peninsula, and forms the southernmost part of Bangladesh. There is a small adjoining island that is separated at high tide, called Chera Dwip.
5	Panama Canal	The Panama Canal, a crucial shipping route connecting the Atlantic and Pacific Oceans, faces an existential threat from climate change. The Panama Canal is a man-made waterway located in Panama, Central America. It connects the Atlantic Ocean (via the Caribbean Sea) to the Pacific Ocean, significantly reducing the travel distance for ships, which would otherwise have to navigate around the southern tip of South America via Drake Passage or the Strait of Magellan.

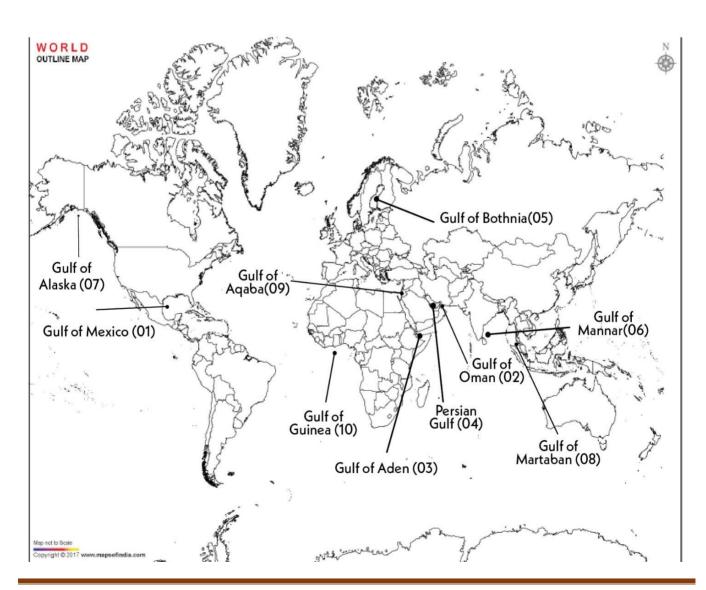
National Places in News



1	Bandhavgadh National Park	Alarming cases of tiger deaths and hunting incidents have reported in Bandhavgadh National Park. It is located in the Umaria district of Madhya Pradesh, India. It lies in the heart of India, between the Vindhya Range and the eastern flanks of the Satpura hill ranges. Apart from tigers, the reserve is home to various other wildlife species, including leopards, deer, langurs, and numerous bird species.
2	Galathea Bay	A wildlife sanctuary in Galathea Bay, Great Nicobar Island, was denotified to clear the way for a transhipment port project. It's renowned for its rich biodiversity and is particularly famous for being one of the largest nesting sites for the Leatherback Turtle. It is home to a variety of endemic flora and fauna, including the Nicobar tree shrew and the Nicobar pigeon.
3	Nanjarayan Bird	It is recently declared Ramsar Site
	Sanctuary	It is located in Tiruppur district, Tamil Nadu. (on the banks of river Noyyal)
		Home to species like the Eurasian coot, spot-billed duck and many types of herons, the wetland also serves various migratory birds flying along the Central Asian Highway
		named after Nanjarayan, a local deity associated with the well-being of birds and animals
4	Kazhuveli Bird Sanctuary	Added to the list of India's Ramsar sites

		After addition of Nanjarayan and Kazhuveli, Tamil Nadu now boasts 18 Ramsar sites—the highest number in India.
		The sanctuary houses the second-largest brackish lake in southern India.
		It is home to migratory birds from Central Asia and Siberia. (like the black-headed ibis and greater flamingo)
		• It is also a stopover for migratory birds along the East Asian-Australasian Flyway.
		In storing water, Kazhuveli also helps with flood control and groundwater recharge, helping maintain the region's water table.
5	Tawa Reservoir	It is recently declared as Ramsar Site, located in Narmada Puram district (Madhya Pradesh)
		It's located inside Satpura Tiger Reserve, bordering Satpura National Park & Bori Wildlife Sanctuary.
		It was built at the confluence of the Tawa and Denwa rivers.

Major Gulfs in World



1	Gulf of Mexico	It is the largest gulf in the world. It is bordered by the United States, Mexico, and the island nation of Cuba. It has a coastline of about 5,000 km. Its floor consists of sedimentary rocks. It is connected to part of the Atlantic Ocean through the Straits of Florida between the U.S. and Cuba, and with the Caribbean Sea via the Yucatán Channel between Mexico and Cuba.
2	Gulf of Oman	It connects the Arabian Sea with the Strait of Hormuz, which then runs to the Persian Gulf. The gulf borders Pakistan and Iran on the north, Oman on the south, and the United Arab Emirates on the west. In 2018, scientists confirmed the Gulf of Oman contains one of the world's largest marine dead zones, where the ocean contains little or no oxygen and marine wildlife cannot exist.
3	Gulf of Aden	It is located in the Arabian Sea between Yemen and Somalia. In the north-west, it connects with the Red Sea through the Bab-el-Mandeb strait. The waterway is part of the important Suez canal shipping route between the Mediterranean Sea and the Arabian Sea in the Indian Ocean.
4	Persian Gulf	It is located in Western Asia between Iran and the Arabian Peninsula. The Persian Gulf is an extension of the Indian Ocean (Gulf of Oman) through the Strait of Hormuz. Countries with a coastline on the Persian Gulf are (clockwise, from the north): Iran, Oman, United Arab Emirates, Saudi Arabia, Qatar, Bahrain, Kuwait, and Iraq.
5	Gulf of Bothnia	It is part of the Baltic Sea between Sweden and Finland. It is the northernmost arm of the Baltic Sea. Into the gulf flow a number of rivers from both sides. In the south the water is the normal brackish water of the Baltic Sea, but in the north, in the Bothnian Bay, the salinity is low.
6	Gulf of Mannar	It lies between the southeastern tip of India and the west coast of Sri Lanka. It is a large shallow bay forming part of the Laccadive Sea in the Indian Ocean. Adam's Bridge, also called Ramsethu, which includes Mannar Island, separates the Gulf of Mannar from Palk Bay, which lies to the north between India and Sri Lanka.
7	Gulf of Alaska	It is an arm of the Pacific Ocean. The entire shoreline of the Gulf is a rugged combination of forest, mountain, and a number of tidewater glaciers. Due to the North Pacific Current, which is in turn fed by the warm Kuroshio Current, the Gulf of Alaska remains ice-free throughout the year.
8	Gulf of Martaban/ Gulf of Mottama	It is an arm of the Andaman Sea in the southern part of Burma. The gulf is named after the port city of Mottama (formerly known as Martaban). The Sittaung, Salween, and Yangon rivers empty into it.
9	Gulf of Aqaba/ Gulf of Eilat	It is a large gulf located at the northern tip of the Red Sea, east of the Sinai Peninsula and west of the Arabian mainland. Its coastline is divided between four countries: Egypt, Israel, Jordan, and Saudi Arabia.
10	Gulf of Guinea	It is the north-easternmost part of the tropical Atlantic Ocean. The intersection of the Equator and Prime Meridian (zero degrees latitude and longitude) is in this gulf. Major rivers that drain into the Gulf of Guinea are the Niger and the Volta.

SOCIAL ISSUES

Himachal Bill Raises Women's Marriage Age

The Himachal Pradesh Assembly has passed the Prohibition of Child Marriage (Himachal Pradesh Amendment) Bill, 2024. The Bill proposed to raise the minimum age of marriage for women from 18 to 21 years. In order to do so, the bill amended the Prohibition of Child Marriage (PCM) Act, which was passed by Parliament in 2006.

- The Bill defines a "child" as anyone under 21, regardless of gender, and gives this new age limit overriding authority over any other law or cultural practice that might permit earlier marriage.
- Additionally, it extends the time frame for filing a petition to annul a child marriage, allowing individuals to do so within five years of reaching the age of majority, giving them until the age of 23 to annul the marriage.

DEBATE SURROUNDING THE MINIMUM AGE FOR MARRIAGE FOR GIRLS The demand to raise the minimum age for marriage for girls to 21 in India has been growing due to several factors: **Gender Equality and Education** Health and Well-being Combatting Child Marriage: **Economic Development** which leads to various social issues such as domestic violence, lack of education, Higher Education: It allows girls Maternal Health: Early marriage **Workforce Participation:** often leads to early pregnancies, which are associated with higher risks of maternal and infant Delaying marriage can increase women's more time to complete their education. This will improve and poverty. participation in the their career prospect workforce, which contributes to economic development. mortality. Empowerment: Giving them more time to develop skills and Child Development: Delaying motherhood gives women the opportunity to provide better care and nurturing to their become financially independent. care and nurturing to children. They are more likely to be emotionally and economically prepared.

Key Challenges

- Different age for attaining majority and being allowed to marry
 - The Bill increases the minimum age of marriage for females to 21 years, bringing it on par with that for males.
 - However, the age of attaining majority is 18 years under the Majority Act, 1875.
 - This difference may have consequences regarding the rights and responsibilities of persons between 18 and 21 years of age.
- Inconsistencies between the minimum age for marriage and various SC Judgements
 - o In 2018, the SC said that right to marry is part of right to life under Article 21 of the Constitution.
 - In another case in 2018, the Court held that when two adults consensually choose each other as life partners, it is a manifestation of their choice.
 - This choice is recognised under Articles 19 and 21 of the Constitution.
 - The current Bill restricts the right to marry before the age of 21 years.
 - Hence it raises question about the reasonableness of restriction for those between the ages of 18 and 21 years.
 - For any restriction of fundamental rights by law, there needs to be three criteria.
 - These are: a public purpose, the restriction having a nexus with such purpose, and absence of a less intrusive way to achieve the purpose.

• Implementation challenges

There has been limited success in curbing marriage of girls below the age of 18 years.

- In 2020, only 785 cases were registered under the 2006 act highlighting the fact that the detection of such marriages remains low.
- This raises the question of whether the increase in the minimum age would have any significant impact in reducing child marriages.

Legislative Process and Constitutional Implications of Himachal Pradesh's Marriage Age Bill

- Since <u>marriage is a subject under the Concurrent List</u>, both the central and state governments can legislate
 on it.
- However, when a <u>state law contradicts a central law</u>, Article 254(1) of the Constitution renders the conflicting
 part of the state law void unless the President gives assent under Article 254(2).
- The Bill must therefore be reserved for President's consideration by the Governor of Himachal Pradesh.
- The <u>President's assent is necessary for the Bill to become law</u>, similar to the process seen with Uttarakhand's Uniform Civil Code (UCC) Bill.

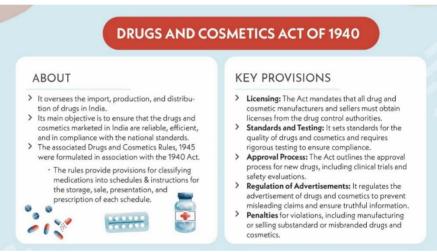
Rule 170 of Drugs Act

In the ongoing case against Patanjali Ayurved, the Supreme Court criticized and stayed the AYUSH ministry for its July 1 notification. The notification directed state licensing authorities not to take any action under Rule 170 of the Drugs and Cosmetics Act of 1940.

Rule 170, introduced in 2018, aims to prevent misleading advertisements of AYUSH products.

Background of the Case

- Notification Issued by the AYUSH Ministry
 - In a contempt case against Patanjali Ayurved Limited, the SC (in May 2024) directed that advertisers should submit selfdeclarations that they are



- not misrepresenting or making false claims about products before promoting them in the media.
- However, the Ministry of AYUSH (on July 1, 2024) notified that <u>Rule 170 of the Drugs and Cosmetics Rules</u>,
 1945 was no longer operational.

Why did AYUSH ministry direct licensing authorities to ignore the rule?

- o In May 2023, the Ayurvedic, Siddha, and Unani Drugs Technical Advisory Board (ASUDTAB) suggested that Rule 170 could be omitted.
 - ASUDTAB is an expert body that recommends actions relating to regulation of AYUSH drugs.
- This is because amendments were being made to the Drugs and Magic Remedies Act, 1954 which also regulates misleading advertisements of AYUSH drugs.
 - In this context, the AYUSH ministry recommended ignoring Rule 170, considering that the other legislative changes would address similar issues.

Rule 170 of the Drugs and Cosmetics Act

- Background why rule 170 was introduced
 - o In response to a parliamentary standing committee's concerns about misleading claims in AYUSH product advertisements and the need for stricter oversight by the AYUSH ministry.

Key features

- In 2018, the Indian government introduced Rule 170 under the Drugs and Cosmetics Act to regulate the manufacture, storage, and sale of Ayurvedic, Siddha, and Unani medicines, with a focus on controlling misleading advertisements.
- This rule <u>prohibits AYUSH drug manufacturers from advertising their products without prior approval</u> and the **issuance of a unique identification number** by the state licensing authority.
- o Manufacturers must submit detailed information, including textual references, rationale, safety, effectiveness, and quality of the drugs.
- The rule mandates rejection of applications if:
 - contact details are missing,
 - the advertisement is obscene or vulgar,
 - it promotes sexual enhancement,
 - it features celebrities or government officials,
 - it references government organizations, or makes false or exaggerated claims.

Challenges to Regulate AYUSH Drugs

- Under the Drugs and Cosmetics Act, manufacturers of AYUSH drugs, like those of allopathic medicines, must obtain a license from the drug controller.
- However, unlike allopathic drugs, which require extensive phase I, II, and III trials or equivalence studies before
 approval, most AYUSH drugs can be approved based on the rationale provided in authoritative texts of their
 respective streams.
- Safety trials are only required for formulations containing around 60 specific ingredients listed in the act, such
 as snake venom, heavy metals like arsenic and mercury, and compounds like copper sulphate.
 - For drugs containing these ingredients or traditional drugs being used for new indications, proof of effectiveness is also required.

Polio Vaccine Triggered The Infection In A Child In Meghalaya

A two-year-old child in Meghalaya's West Garo Hills district tested positive for polio. The Union health ministry clarified that the case is "vaccine-derived" and does not threaten India's polio-free status. However, officials remain vigilant to prevent any potential spread of the infection.

Vaccine-derived Polio

About

- It is a strain linked to the weakened live virus used in the oral polio vaccine (OPV).
- While OPV is largely safe and has successfully eradicated polio in most countries, it can, in rare cases, cause the disease in children with weak immune systems.
- According to experts, OPV can lead to vaccinederived infections in two ways:

About

 Polio, or poliomyelitis, is a highly infectious viral disease caused by the poliovirus.

Polio

- The virus spreads mainly through contaminated food and water or contact with an infected person.
- While most polio infections are asymptomatic, a small percentage can cause paralysis by attacking the nervous system.

3 Types of polio-virus

 wild poliovirus type 1 (WPV1), wild poliovirus type 2 (WPV2 and wild poliovirus type 3 (WPV3).

Polio in India

- India launched the Pulse Polio immunization program in 1995.
 - The program was part of the Global Polio Eradication Initiative (GPEI), which was launched in 1988 by the WHO, national governments, and other organizations.
 - The program's goal was to achieve 100% coverage b administering polio drops to children ages 0-5 acros the country.
- India was officially declared polio-free by WHO in 2014, after going three consecutive years without any new cases of wild poliovirus.
- The country continues to maintain high levels of vigilance with ongoing immunization efforts to prevent the re emergence of the disease, particularly from vaccine derived strains.

- the weakened virus may circulate among children, eventually regaining its ability to cause severe infection, or
- it can cause chronic infection in immunocompromised children, replicating in their gut and slowly regaining its virulence.
 - ✓ The recent polio case in Meghalaya appears to be an example of the latter.
- o It is easier to control further spread of such vaccine derived variants because the other children in the area are likely fully immunized.
 - Even if children in an area where such a case is reported are completely vaccinated, health workers have to immunise them once again as a preventive measure.

• Detection of vaccine-derived polio cases in India

- o India's last reported case of wild poliovirus (i.e. the infection caused by the naturally occurring version of the virus) was detected in West Bengal's Howrah district in 2011.
- o India was declared polio-free in 2014 after successfully preventing any wild polio infections for three years.
- o However, during this period vaccine derived polio cases have continued to be reported.
 - Multiple other cases of vaccine-derived polio have been reported from across the country, with the most recent case (prior to the one in Meghalaya) being reported in Kerala in July 2024.
- These cases do not affect India's polio-free status only the detection of the wild poliovirus will
 change that.

Injectable Polio Vaccine (IPV) as a tool to prevent the spread of vaccine-derived polio

- o Though it contains no live virus, however, IPV has its own challenges:
 - it requires trained personnel to administer, which could lower immunization rates, and
 - it does not prevent the transmission of the virus from person to person.
- High levels of immunization are crucial to prevent outbreaks.

• Use of IPV in India

- While countries like Canada and the US have fully adopted IPV, India uses both vaccines—IPV during routine immunization and OPV during Pulse Polio Days.
- Experts note that India uses IPV sub-optimally, administering only one shot compared to the three shots and a booster used in other countries, necessitating the continued use of OPV to maintain immunity levels.

Hema Committee (HC) Report

- The release of the *Justice* Hema Committee (HC) report marks a significant moment in the ongoing struggle for gender equality within the Malayalam film industry.
- This report, commissioned by the Chief Minister of Kerala at the request of the Women in Cinema Collective (WCC), is a critical reflection on the myriad issues faced by women in this sector.

Hema Committee Report

- A Comprehensive Documentation of Gender-Based Issues
 - The report is not limited to instances of sexual harassment, though these are undoubtedly significant. It goes beyond to expose a wide array of constitutional, labour, and human rights violations that women in the industry endure.

 By identifying at least 17 distinct forms of exploitation across 30 different professional categories, the report provides an unprecedented level of detail about the systemic issues within the industry.

• A Reflection on Women's Everyday Struggle

For many women, the film industry has been a space where their rights are routinely violated, where
power dynamics are skewed against them, and where their contributions are undervalued.

Challenging Existing Power Structures

- The industry has long been dominated by a patriarchal culture that marginalises women and perpetuates gender inequities.
- The report, by exposing the extent of exploitation and abuse, directly confronts these power dynamics.
- o Even the release of movies can be prevented as the Film Chamber of Commerce has to issue NOC.
- Lack of changing rooms or toilet facilities on the set, especially in outdoor locations, leading to urinary infection for many women.
- Junior artists are in some cases "treated worse than slaves" with work extending up to 19 hours.
- The lack of a written contract is exploited by some to deprive the actors and technicians of even the remuneration promised orally.
- Another alarming finding is that many men assume that women willing to perform intimate scenes onscreen are also willing to do so off-set, reflecting a lack of professionalism and understanding of the craft among men in the industry.

Empowering Women's Voices and Experiences

- For years, women in the Malayalam film industry have been silenced, their experiences of discrimination and harassment ignored or trivialised.
- The Hema Committee report provides a platform for these women to share their stories, validating their experiences and bringing them to the forefront of public consciousness.
- A Broader Impact on Gender Equity Discourse beyond the Malayalam film industry.
 - o It contributes to the broader discourse on gender equity in the workplace, particularly in industries that have historically been male-dominated and resistant to change.
 - The **report's findings resonate with the experiences of women in other industries,** highlighting the universal challenges of gender discrimination, harassment, and inequality.

Hema Committee report recommends setting up a **civil court-like tribunal** to deal with these serious issues. The response so far has been marked by sensationalism, apathy, and a lack of meaningful engagement with the report's findings. The Kerala government must demonstrate the political will to implement the necessary reforms, setting an example for other states and industries to follow and only then can the vision of a truly inclusive and equitable film industry be realised.

Reviving the PM-WANI Scheme

The Telecom Regulatory Authority of India (TRAI) has released a draft Telecommunication Tariff (70th Amendment) Order 2024 on "Regulatory framework for PM-WANI scheme".

Status of Public Wi-Fi Hotspots

The National Digital Communications Policy 2018 under 'Connect India' mission had set the goal to enable
deployment of 10 million public Wi-Fi hotspots by 2022 for creating a robust digital communication
infrastructure.

- **Further, the Bharat 6G Vision** also sets the goal of 10 million public Wi-Fi hotspots by 2022 and 50 million by 2030 for Digital India 2030 mobile and broadband policy objectives.
- However, PM-Wani hotspot numbers presently are much below the targeted numbers.
- For instance, as per the information gathered from PM-Wani Central Registry,
 - O There were only 207,642 deployed PM-Wani Wi-Fi hotspots in the country and 199 PDOs and 111 app providers (as of July 2024).

PM-WANI Scheme

The Prime Minister's Wi-Fi Access Network Interface (PM-WANI) was launched by the Department of Telecommunication (Ministry of Communications) in 2020.



- > The scheme aims -
- To enhance the proliferation of public Wi-Fi hotspots to create robust digital communications infrastructure in the country, especially in rural areas.
- To increase employment for small and micro-entrepreneurs and provide low-cost internet to the underserved urban poor and rural households.
- To encourage local shops and establishments to provide Wi-Fi for last-mile internet delivery which does not require a licence or charge a registration fee.
- > The PM-WANI ecosystem consists of four parts: Public Data Office (PDO), Public Data Office Aggregator (PDOA), App Provider, and Central Registry.
- The average daily data usage per Wi-Fi hotspot was of the order of 1 GB till last year, and now it has come down to a few MBs.
- o This is quite less than the monthly average data limit being provided to retail broadband customers.

Reasons for the Poor Penetration of Public Wi-Fi Hotspots

- This is mainly due to the extremely high cost of backhaul internet connectivity charged by Telecom Service Providers (TSPs) and Internet Service Providers (ISPs) from Public Data Offices (PDOs).
 - O Backhaul is the physical part of a network that connects the core network to local networks
- Also, TSPs/ISPs often insist on PDOs to connect public Wi-Fi Access Points using expensive Internet Leased Lines (ILL) instead of regular Fibre-to-the-Home (FTTH) broadband connections.
 - For comparison, 100 Mbps of ILL rate versus an FTTH broadband connection showed that ILLs are 40 to 80 times higher than the retail connection.
- As most small-scale shop owners are unable to pay the high tariffs applicable to commercial entities, there are not many public Wi-Fi hotspots under the scheme.

Changes Proposed by the Draft Telecommunication Tariff (70th Amendment) Order 2024

- The telecom regulator has proposed a lower cost structure under the PM-Wani scheme.
- For example, tariff for PDO under the PM-Wani scheme shall be the same as is applicable for retail broadband (FTTH) connections.
- This will **rationalise** the cost of broadband connectivity to PDOs and will **pace up** the proliferation of the public Wi-Fi hotspots.

{For more about PM-WANI refer The Recitals-May2024}

New India Literacy Programme (NILP)

In order to push for adult literacy under the New India Literacy Programme (NILP), the Union Ministry of Education (MoE) has defined "literacy" and what it means to achieve "full literacy" in a letter to all States.

Who is Considered Literate under the NILP?

- Meaning of literacy: According to the MoE, literacy may be understood as the ability to read, write, and compute with comprehension, i.e., to identify, understand, interpret and create along with critical life skills such as digital literacy, financial literacy, etc.
- Meaning of full literacy: A State/UT achieving 95% literacy may be considered as fully literate.
- How one is declared literate under the NLIP?

- An individual has been declared literate after taking the Foundational Literacy and Numeracy Assessment Test (FLNAT).
- In 2023, 39,94,563 adult learners appeared for FLNAT exams, out of which 36,17,303 learners were certified 'literate.'

Significant Literacy Challenge Faced by India

- Large number of non-literate individuals: According to the Census 2011, there are 25.76 crore non-literate individuals in the 15 years and above age group.
- Women are more disadvantaged:
 - Out of total non-literate individuals, 9.08 crore are males and 16.68 crore are females.
- Ineffectiveness of government initiatives: An estimated 18.12 crore adults in India are still illiterate, despite advancements achieved under the Saakshar Bharat program, which certified 7.64 crore people as literate between 2009–10 and 2017–18.
- Lower pass percentage in FLNAT exam: While the pass percentage in FLNAT hovered between 89.64% to 91.27% in 2023, in 2024 it has dropped a bit lower to 85.27%.
- Lower budget allocation: In 2023-24, the allocation for NILP was ₹157 crore, but later it was brought down to ₹100 crore in the revised budget estimate.

New India Literacy Programme (NILP)

About:

- ULLAS Nav Bharat Saksharta Karyakram/NILP is a centrally sponsored initiative that is launched by the MoE and that aligns with the National Education Policy (NEP) 2020.
- It was launched (for implementation during 5 years from the FYs 2022-23 to 2026-27) with a financial outlay of Rs.1037.90 crore out of which Rs.700.00 crore is Central share and Rs.337.90 crore is State share.

Objective:

It aims to empower adults aged 15 and above from all backgrounds who missed formal schooling (non-literates), helping them integrate into society.

Components: The scheme has 5 components:

- Foundational Literacy and Numeracy (FLN),
- Critical Life Skills,
- ➤ Vocational Skills Development,
- Basic Education and
- Continuing Education.

The beneficiaries under the scheme:

- They are identified through door-to-door surveys on Mobile App by the surveyors in the States/UTs.
- c The non-literate can also avail the benefit of the scheme through direct registration from any place through mobile app.

Other information:

- The scheme is mainly based on volunteerism for teaching and learning and volunteers can also register through mobile app for this purpose. The scheme is based on technology and implemented predominantly through online mode.
- The teaching learning material and resources have been made available on the DIKSHA platform of NCERT and can be accessed through the mobile-apps.
- Further, modes like TV, Radio, Samajik Chetna Kendra, etc., are also to be used for dissemination of FLN.

Govt. Bans 156 Fixed Dose Combination Drugs

The Union Health Ministry has banned 156 fixed dose combination (FDC) medicines, citing "no therapeutic justification" and potential risks to patients. The Union Health Ministry issued a gazette notification under **Section 26 A of Drugs and Cosmetics Act of 1940**, prohibiting the manufacture, sale, and distribution of these medicines.

Fixed Dose Combination (FDC) Drugs

About

- They are also referred to as cocktail drugs.
- The Food and Drug Administration, USA defines a combination product as 'a product composed of any combination of a drug and a device; a biological product and a device; a drug and a biological product; a drug, device, and a biological product'.
- It is widely accepted that most drugs should be formulated as single compounds.

Advantages of FDC Drugs

- FDC formulations have unique advantages such as complementary mechanism of action, synergistic effects, better tolerability, elongated product life-cycle management, and cost savings.
- Use of FDCs is a rational approach for achieving optimal therapeutic benefits while minimizing pillburden.

Challenges/Demerits of FDC Drugs

 There are increased chances of adverse drug effects and drug interactions compared with both drugs given individually.

- o Unfortunately, many FDCs being introduced in India are usually irrational.
 - The most pressing concern with irrational FDCs is that they expose patients to unnecessary risk of adverse drug reactions.
- o Irrational FDCs also impose unnecessary **financial burden on consumers**.
- Pharmaceutical manufacturers, however, continue to reap the benefits of huge sales, and therefore continue to promote combinations with vigour.

National Pest Surveillance System (NPSS)

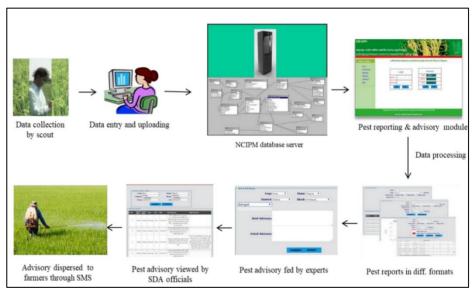
The Union Government launched the AI-based **National Pest Surveillance System** (NPSS) that will help farmers to connect with agriculture scientists and experts on controlling pests using their phone.

About National Pest Surveillance System (NPSS):

- On August 15, the Indian Government launched NPSS, an AI-based platform designed to help farmers connect with agricultural scientists and experts to manage pest control.
- This initiative aims to reduce farmers' reliance on pesticide retailers and promote a scientific approach to pest management.
- Key aspects of the NPSS include:
 - Use of AI tools to analyse pest data for effective control and management.
 - Enabling farmers to capture and send images of infested crops or pests to experts via the platform for accurate diagnosis and treatment.
 - Enhancing the connection between scientists and approximately 14 crore farmers across the country.
- The system will benefit farmers by providing timely information on pest attacks, thereby increasing productivity and conserving soil health.
- The system requires no additional funding and will be implemented at the state level through outreach programs.

Proposed Outcome

Avoidance of pest epidemics.



 Moreover, a repository of national pest scenario will also be available to various public agencies, working in the field of plant protection to identify the pest hotspots and thus to formulate plant protection policies.

WHO Declares Monkeypox A Public Health Emergency Of Global Concern

The WHO has declared monkeypox a public health emergency of international concern, with the Democratic Republic of the Congo and other African countries being severely affected.

Since 2022, there have been 99,176 cases and 208 deaths reported from 116 countries. What seems to be worrisome is the spread of a new sexually transmissible strain of the virus.

What Does Declaration As A PHEIC Mean?

- A PHEIC is declared for an extraordinary event which is determined to constitute a public health risk to other States through the international spread of disease.
- PHEIC label by WHO is designed to trigger a coordinated international response and could unlock funding to collaborate on sharing vaccines and treatments.

Monkeypox

About

- Monkeypox is a rare zoonotic viral disease belonging to the Orthopoxvirus genus in the Poxviridae family, the same virus family as smallpox.
 - Zoonotic diseases are disease that spread from animals to humans.
- Monkeypox first was discovered in animals in 1958 when two outbreaks occurred in captive monkey colonies kept for research purposes. Hence, the name 'monkeypox'.

About Monkeypox

> An infection caused by monkeypox virus Globally, more than 16,000 cases and five deaths due to monkeypox reported in the last few months: World Health Organisation has declared it a public health emergency

How it spreads

body fluids

> In India, four cases of have been confirmed; three in Kerala and one in Delhi > While the cases confirmed from Kerala have a known history of travel to UAE, the Delhi case has no travel history,

which could suggest a

rare localised spread

> Pregnant women can spread the virus to their fetus through > Direct contact with the infectious rash, scabs, or the placenta > Respiratory secretions during prolonged, face-> It's also possible for to-face contact, or during

people to get monkeypox from infected animals physical contact, such as kissing, cuddling, or sex by being scratched or bitten by the animal; by > Touching items, such as clothing or linens, that preparing or eating meat: or using products from an touched the infectious infected animal

Outbreaks

First identified case of monkeypox in humans was reported in 1970 in the The Democratic Republic of the Congo in a 9-year-old boy

> In 2003, the first monkeypox outbreak outside Africa was in the US; linked to contact with infected pet prairie dogs imported from Ghana

> Also reported in travellers from Nigeria to Israel in Sept 2018; to the UK in Sept 2018, Dec 2019, May 2021 and May 2022; to Singapore in May 2019, and to the US in July and Nov 2021

> From Jan 1, 2022, to Jun 22, 2022, 16,000+ cases and five deaths reported to WHO from 75 countries > India reported the first case from Kerala on July 14

rash, or body fluids

Symptoms

Fever, intense headache, swelling of the lymph nodes, back pain, myalgia (muscle ache), lack of energy and skin eruption

Usually self-limited; symptoms last for 2 to 4 weeks. Severe cases occur more commonly among children. Underlying immune deficiencies may lead to worse outcomes

Prevention

Vaccines used during the smallpox eradication programme are known to provide protection.

Newer vaccines have been developed, of which one has

Treatment

An antiviral agent
developed for smallpox has
also been licensed for the
treatment of monkeypox. In
most cases, patient condition
improves with symptomatic
management only.

Treatment

o There is currently no specific treatment for monkeypox. However, the Vaccinia vaccine, which was used against smallpox, had shown 85% efficacy in monkeypox prevention.

What Is The Reason For The Current Concern?

- The spread of clade Ib of the mpox virus (MPXV), primarily transmitted through sexual contact, is causing concern.
- Historically, clade I infections, which are deadlier than clade II, spread through zoonotic events, but sexual transmission of clade I was previously unreported.
- Over 100 cases of clade Ib have emerged in countries neighboring the DRC—Burundi, Kenya, Rwanda, and Uganda—where mpox was not previously reported.

Risk for India

- During the 2022 outbreak, India reported 27 cases and one death, primarily from the less deadly clade II, with infections initially linked to international travel but later spreading locally.
- Experts emphasized that the current surge of mpox in Africa, coupled with the spread of a new sexually transmissible strain, is a global emergency.

World Health Organisation

About:

- Founded in 1948, it is the UN agency responsible for global public health. It has 194 member states. It is based in Geneva, Switzerland.
- It is involved in vaccination campaigns, health emergencies and supporting countries in primary care.

It is funded by a combination of members' fees based on wealth, population and voluntary contributions.

India & WHO:

- India became a party to the WHO in January 1948. India is a member state of the South East Asia Region at the WHO.
- The first regional director for South East Asia was an Indian, Dr Chandra Mani, who served between 1948-1968.
- Currently, the post has again been occupied by an Indian appointee, Dr Poonam Khetrapal Singh, who has been in office since 2014.
- Dr Soumya Swaminathan served as WHO's chief scientist (2019-2022).

Waiving Clinical Trials for Drugs Approved in Select Countries

The Central government has decided to waive the need for clinical trials in India if the drugs are approved in the US, UK, Japan, Australia, Canada, and EU. This move could make drugs made outside of India more accessible and affordable in the local market.

About Clinical Trials

Trials can test drugs, medical devices, and even procedures, which should help investigators determine the safety and efficacy of the intervention to a reasonably high degree of confidence.

Central Drugs Standard Control Organization (CDSCO)	The apex regulatory body for drug approval and oversight of clinical trials.
Drug Controller General of India (DCGI)	The head of CDSCO, responsible for granting approvals for clinical trials and ensuring compliance with regulatory standards.
Indian Council of Medical Research (ICMR)	Setting ethical guidelines and standards for clinical trials.
Clinical Trial Registry of India (CTRI)	Hosted by the ICMR's National Institute of Medical Statistics, the CTRI is a free, online public-record system to register clinical trials being conducted in India.
	Launched in 2007 for use on a voluntary basis. In 2009 , DCGI mandated all trials to be registered here.

Present Situation of Clinical Trials in India

- Several medicines already approved by other regulatory authorities in the US, the UK and the EU are not immediately available for Indian patients.
- This is because of certain regulatory requirements under the Drugs and Cosmetics Act (1940) and rules made thereunder.
- These include the requirement of conducting a local clinical trial and generating safety and efficacy data before marketing authorisation in India.
- This leads to a delay in launching a new or novel medicine in India, which is anywhere between 5-20 years when compared to western markets.

Waiving Clinical Trials in India:

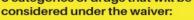
Legal provisions:

According to an order issued by India's drug regulatory agency (CDSCO), the Central government has authorised the exemption of local clinical trials for approval of new drugs, 'as per Rule 101'.

The Rule 101 of New Drugs and Clinical Trial Rules 2019 empowers the Central Licensing Authority (with approval of the Central govt) to-

- For specify the name of the countries (from time to time) for considering waiver of local clinical trial for approval of new drugs and
- grant permission for conduct of clinical trials.

5 categories of drugs that will be



- Orphan drugs for rare diseases,
- Gene and cellular therapy products,
- New drugs used in pandemic situations.
- New drugs used for special defence purposes, and
- New drugs having significant therapeutic advances over the current standard care



Significance Of The Waiver For Indian Patients

- This will significantly benefit both domestic and foreign drug manufacturers by expediting the approval process and facilitating faster access to essential medications for treating diseases like -
 - Cancers, and
 - Rare diseases like Spinal Muscular Atrophy (SMA) and Duchenne Muscular Dystrophy (DMA), and autoimmune conditions.
- There will also be a **considerable reduction in the cost** of various advanced medicines.
- This will potentially transform both the pharmaceuticals and the healthcare landscape

Concerns: In 2012, a <u>parliamentary standing committee expressed concerns in its 59th report about approving certain new drugs in the country without conducting local clinical trials. This is due to the fact that there may be certain medicines that require local clinical trials due to Indian conditions and genetic factors.</u>

Performance of Ayushman Bharat Scheme

Beneficiaries aged 70 years and above made up over 12% of all admissions under the government's flagship Ayushman Bharat health insurance scheme, according to data presented in Parliament by the Union Ministry of Health and Family Welfare.

About Ayushman Bharat Scheme

- Ayushman Bharat, a flagship scheme of Government of India, was launched in 2018 as recommended by the National Health Policy 2017.
- **Objective**: To achieve the vision of Universal Health Coverage.
- This initiative has been designed to meet **Sustainable Development Goal number 3** and its underlining commitment, which is to "leave no one behind."
- Ayushman Bharat adopts a continuum of care approach, comprising of two inter-related components, which are:
 - Pradhan Mantri Jan Arogya Yojana (PM-JAY)
 - It provides health insurance cover of Rs. 5 lakhs per year to over 10 crore poor and vulnerable families for seeking secondary and tertiary care.
 - Health and Wellness Centres (HWCs)

Progress/Achievements under Ayushman Bharat Scheme

- The scheme crossed the milestone of **30 crore Ayushman cards** in January2024.
- In order to reach out to the last mile, NHA has launched 'Ayushman App' for Ayushman Card creation.
- With 4.83 crore Ayushman Cards, Uttar Pradesh tops the list of States with the highest number of Ayushman Cards crated. Madhya Pradesh and Maharashtra stand at number two and three positions with 3.78 crore and 2.39 crore Ayushman cards respectively.
- 48% of treatment provided under the scheme has been availed by the female; thus, gender equity is part of core design of the scheme.
- Further, Ayushman Bharat has successfully catered to 6.2 crore hospital admissions worth more than Rs. 79,000 crores.

Performance of Ayushman Bharat Scheme

 The Ayushman Bharat health insurance scheme data reveals that beneficiaries aged 70 years and above constituted over 12% of all admissions and nearly 14% of the total expenditure till January 2024.

- The government's plan to expand Ayushman Bharat to include all individuals over 70, irrespective of economic status, is set to add nearly 4 crore new beneficiaries.
- Expanding coverage to older people of means will likely increase the policy's utilization and costs.
- The interim budget in February extended the scheme to ASHA and Anganwadi workers, but no further expansion was mentioned in the July budget, with a slight increase in allocation to Rs 7,300 crore.
- India's ageing population is projected to rise from 8.6% in 2011 to 19.5% by 2050, tripling in absolute numbers from 103 million in 2011 to 319 million in 2050.
- Hospital admissions for older individuals exceeded their population share in several states, with Maharashtra leading at 20.49%.
 - o In contrast, Tamil Nadu recorded the lowest proportion of admissions (3.12%) but had higher treatment costs for the elderly.
- States like Maharashtra, Kerala, Haryana, Himachal Pradesh, Bihar, and others had the highest proportions of spending on elderly care.
- Treatments for the elderly are costlier due to longer healing times, higher likelihood of secondary infections, need for ICU care, and multiple comorbidities.

ECONOMY

Rise in India's Seafood Exports

- India's seafood exports have seen significant growth, rising from Rs 46,662.85 crore in 2019-20 to Rs 61,043.68 crore in 2023-24, an increase of 30.81%.
- The Marine Products Export Development Authority (MPEDA) supports the industry by enhancing infrastructure, establishing testing labs, and providing technical assistance for aquaculture aimed at exports.
- Recent budget changes have reduced import duties on key ingredients for seafood production, making Indian products more competitive internationally.
- Additionally, the *Remission of Duties and Taxes on Export Products (RoDTEP)* has increased from 2.5% to 3.1%, further promoting seafood exports.
- The government is also implementing the Pradhan Mantri Matsya Sampada Yojana (PMMSY), investing Rs 20,050 crore over five years (FY 2020-21 to FY 2024-25) to promote exports from fisheries.
- The scheme intends to address critical gaps in fish production and productivity, quality of catch/harvests, technology adoption, post-harvest infrastructure, modernization and strengthening of value chain, reduction of post-harvest losses, traceability etc.
- Since 2020-21, the Department of Fisheries has approved Rs. 1283.47 crore for development of cold chain infrastructure under PMMSY to reduce post-harvest losses and strengthen the seafood value chain.

Push for MRO Industry

- The Government has announced a uniform 5% Integrated Goods and Services Tax (IGST) rate on imports of aircraft parts, components, testing equipment, tools, and toolkits, irrespective of their HSN classification.
- This policy change aims to enhance the competitiveness of the *Indian Maintenance, Repair, and Overhaul* (MRO) sector, promoting innovation, efficiency, and a robust aviation sector.
- The government has implemented several measures to facilitate the establishment of aircraft MRO services in India through various policies, regulations, and other incentives:
- In the Union Budget 2024-25, the period for the export of goods imported for repairs has been extended from 6 months to 1 year. The time limit for re-importing goods for repairs under exported under warranty has been extended from 3 to 5 years.
- New MRO Guidelines, announced in 2021, abolished royalties and introduced transparency and certainty in land allotments for MROs at Airports Authority of India (AAI) airports.
- GST on MRO has been reduced from 18% to 5% with full Input Tax Credit from 2020.
- Transactions sub-contracted by foreign Original Equipment Manufacturers (OEMs) to domestic MROs are treated as 'exports' with zero-rated GST from 2020.
- Additionally, Customs Duty on tools and tool kits has been exempted, clearance processing of parts has been simplified, and 100% FDI is permitted via the automatic route for MRO services.

Malwa Canal

- The Punjab government has announced a new irrigation channel, the Malwa Canal at a cost of Rs 2,300 crore.
- The canal will be around 150 km long in a north-south direction in the state's south western corner. It will flow parallel to the **Sirhind Feeder** and **Rajasthan Feeder canals**.

- The proposed canal is named after Malwa, the biggest and most important of the three geographical and cultural regions of Punjab, which stretches across the entire southern part of the state.
- It will originate at Harike Headworks on the Sutlej river in Ferozepur district, and will carry 2,000 cusecs of water. A **cusec** is flow equivalent to **1 cubic foot per second**.
- The canal, which is expected to take five years to build, is projected to irrigate 2 lakh acres of land.

Challenges

- However, funds for the canal is the primary hurdle before the state, which is already under a debt burden of ~Rs 3.5 lakh crore.
- The process of carrying out a socio-economic survey to figure out the need for land acquisition, and to assess the extent of human displacement and rehabilitation and compensation, will have to be gone through.
- Environmental clearance, permission to fell trees, and clearance from the Central Water Commission is also yet to be taken.

Bailey Bridge

- The Indian Army's Madras Engineer Group last week **assembled a Bailey bridge** at Chooralmala to reach Mundakkai village, one of the sites worst hit by the landslides in Wayanad.
- The 190-foot bridge has since been crucial in facilitating the <u>movement of men, heavy machinery and</u> ambulances. It can carry weights up to 24 tonnes, and will remain in use until a permanent bridge is built.
- It is a type of modular bridge, whose parts are pre-built so that they **need minimal construction work** and **can be assembled quickly when needed**.
- An English civil engineer named Donald Coleman Bailey invented it during World War II.
- The Bailey bridge used in World War II was designed to be moved, rebuilt, or replaced in several hours, even under enemy fire.
- The pre-fabricated parts in a Bailey bridge include light steel panels linked through pins, which are big, screw-like objects. These helps establish the guardrails of the bridge.
- The bridge can be extended, and the lightness of the parts allows it to be mobile. No heavy installation equipment is needed.

Usage in India

- The Indian Army carried on the British legacy and thus inherited a large inventory of the Bailey bridge.
- Such bridges were used in the **1971 war with Pakistan**, and in **disaster relief** situations such as in **Uttarakhand flash floods of 2021**.

Green National Highway Corridors Project

- The Union Government and the World Bank have entered into an agreement for the construction of the Green National Highway Corridors Project (**GNHCP**).
- It comprises an aggregate length of 781 km for the states of Himachal Pradesh, Rajasthan, Uttar Pradesh and Andhra Pradesh.
- The project will be supported by a **loan assistance of \$500 million from the World Bank**, contributing to the total project cost of \$1288.24 million (equivalent to ~Rs. 7,662 crore).
- The scheduled date for completing the final package of the GNHCP project is set for May 2026.

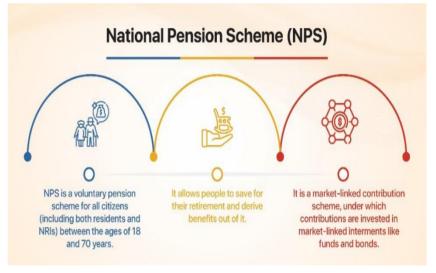
- The GNHCP aims to demonstrate safe and environmentally friendly highway construction, with a focus on climate resilience and the adoption of green technologies incorporating the following aspects:
 - Conservation of natural resources, achieved by using materials such as cement-treated sub-base and reclaimed asphalt pavement.
 - Utilisation of local and marginal materials, including lime, fly ash, and waste plastic.
 - It also emphasises bio-engineering measures for slope protection, incorporating innovative techniques like coco fiber or jute erosion control blankets combined with shrub or grass plantation, and Shotcrete crib walls with vegetation.
 - Other methods include bamboo plantations, hedge brush layers, interlink chain mesh with grass strips, and geocells with hydroseeding.

Benefits

- It is expected to reduce carbon emissions and ensure conservation of natural resources during the life cycle (construction and operation period) of the project.
- It will provide smooth and motorable roads with all-weather connectivity of the nearby areas. This will result in socio-economic development as well as enhanced trade and connectivity within the region.

NPS Vatsalya

- The Union Budget 2024-25 has announced National Pension Scheme (NPS) Vatsalya, a pension scheme for minors.
- NPS Vatsalya is a scheme for minor children where parents or guardians can contribute to a National Pension Scheme (NPS) account in the name of the child until they reach the maturity age of 18 years.
- The scheme will get converted to regular NPS once the child attains the age of 18.
- It aids in securing children's financial future by allowing parents to start saving early for the retirement of their children.



Krishi Decision Support System

- The Union Agriculture Ministry has launched a digital geo-spatial platform, **Krishi-Decision Support System** (DSS).
 - ✓ It is developed jointly by Ministry of Agriculture & Department of Space.
- The platform provides seamless access to comprehensive data, including satellite images, weather information, reservoir storage, groundwater levels and soil health information, which can be easily accessed from anywhere at any time.
- Krishi-DSS includes several advanced modules designed to support comprehensive agricultural management.
- From flood impact assessment to Crop insurance solutions and many more, it is a holistic solution, which will help in empowering the farmers, informing the policies, and nourishing the nation.

Features of Krishi-DSS

- With **crop mapping and monitoring**, DSS will help to understand cropping patterns by analysing <u>parcel-level</u> crop maps over the different years.
- This information helps in understanding *crop rotation practices* and promotes sustainable agriculture by encouraging the cultivation of diverse crops.
- The DSS will also be helpful in **drought monitoring** and it will provide near real-time information on various indicators, i.e. soil moisture, water storage, crop condition, dry spells, etc.
- **Crop weather watch** will give information about how weather is impacting the crops, crop harvest status, crop residue burning etc.
- One nation-one soil information system gives a comprehensive soil data i.e soil type, soil pH, soil health etc.
 Soil data will help in assessing crop suitability and land capability for implementing soil-water conservation measures.
- **Ground truth data library** of Krishi-DSS will facilitate innovation by providing essential resources like ground truth data and spectral libraries for different crops to the researchers and industry.
- By integrating various data sources available on DSS, various farmer-centric solutions can be developed such as right individual advisories to farmers, early disaster warning like pest attack, heavy rain, hail storm etc.

Implementation Hurdles in PM-KUSUM

- The Pradhan Mantri Kisan Urja Suraksha Evam Utthaan Mahabhiyan (PM-KUSUM) scheme, launched with the goal of solarising agriculture in India, is facing implementation hurdles.
- According to a report by the Centre for Science and Environment (CSE), the scheme has achieved only 30% of its targets, raising concerns about its ability to meet the 2026 deadline.

PM KUSUM The scheme was launched by Ministry of New and Renewable Energy (MNRE) in 2019, to add solar capacity of 30,800 MW by 2022 (later extended to 2026), with total central financial support of Rs 33,4,42 crore. State Nodal Agencies (SNAs) of MRE coordinate with States/UTs, discoms and farmers for implementation of the scheme. De-dieselisation of the farm sector, providing water and energy security to farmers, increasing the income of farmers and curbing environmental pollution. Scheme Components Component A: Installation of 10,000 MW of solar capacity by setting up small power plants of capacity of 2 MW. These power plants will be set up by farmers, panchayats, cooperatives, farmer producers etc. in barren land. Component B: Replacement of "diesel water pumps" with 20 lakh off-grid solar-powered water pumps. The government will support individual farmers in setting up solar pumps of a capacity up to 7.5 Horse Power (HP). Component C: Replacement of "electric water pumps" with 15 lakh grid connected solar water pumps. Central Finance Assistance (CFA) for Component B & C CFA of 30% of the benchmark cost or the tender cost, whichever is lower, State Government subsidy 30%; Remaining 40% by the farmer In North-Eastern States, Sikkim, J&K, Himachal, Uttarakhand, Lakshadweep and A&N Islands, CFA of 50%, State Government subsidy 30%, Remaining 20% by the farmer

Challenges in implementation

- While Component B has seen significant progress, particularly in Haryana, Rajasthan, Maharashtra and Uttar Pradesh, components A and C have lagged.
- Most implementation efforts have focused on replacing diesel pumps with solar variants, which has brought substantial benefits to farmers.
- One significant hurdle has been the **availability of cheap electricity**, which reduces the incentive for farmers to switch to solar pumps.

- Additionally, farmers are often forced to opt for pump sizes larger than needed for their land, increasing their financial burden.
- **Centralisation of the implementation model** in some states is another challenge. In Punjab, the Punjab Renewable Energy Development Agency oversees the scheme, whereas in Rajasthan, each component has different implementing agency.

Recommendations

- **Decentralisation:** State implementing agencies with the necessary knowledge about each component should be responsible for the components that are under their expertise.
- **Financial viability:** Offering farmers the option to pay upfront costs in instalments could make the scheme more accessible.
- **Increased central assistance:** Boosting financial assistance from the Centre, tailored to state-specific needs and fluctuating prices of solar modules, would reduce the financial burden on farmers.
- **Customisation:** The scheme needs to be tailored to meet farmers' specific requirements to be financially viable.
 - ✓ If pump sizes are based on the land size and water requirements of different areas, rather than being kept uniform throughout the country, farmers could avoid the extra expenditure.

Collision Avoidance System

- A series of train accidents in India recently brought the spotlight on the sluggish implementation of 'Kavach', the homegrown Collision Avoidance System (CAS) for the Indian Railways.
- In broad terms, CAS is a collection of technologies to help a vehicle stay away from another vehicle or obstacles. For example, a CAS device fit on a train, will be designed to help that train avoid colliding with another train.
- Most CAS devices require two pieces of information, preferably in real-time: the locations of all the other vehicles and the location of this vehicle relative to those vehicles.
- Such a vehicle can be driven by a human, in which case CAS's purpose would be to assist the driver or be autonomous.



Bhavishya

- The Department of Pension & Pensioners' Welfare (DOPPW) has introduced an innovative centralized pension processing software called 'Bhavishya' for all central government Ministries/Departments.
- It has been done to overcome the problems of delay & clerical errors in processing the pension cases, as well as financial loss and harassment to the pensioners.
- "Bhavishya" has been made mandatory for all central civil Ministries and Departments.
- This software has brought all the stakeholders who were till date decentralized on a single platform.

Best Practices of Bhavishya

• **Auto registration of retirees:** The software is integrated with payroll package and auto fills basic data of the retiring employees.

- Self-filling of pension form(s) by retiree.
- Strict timelines for various stages of pension processing across all stakeholders involved.
- **Transparency and Accountability** in processing of a pension case and due to this system, it becomes very easy to identify the delay points if any, and fix responsibility.
- Automatic calculation of all the Retirement Benefits: It removes manual intervention and reduces grievances.
- **End to End digitization:** e-PPO (Pension Payment Orders) makes the entire pension application, processing and payments process paperless by transferring and accepting data in encrypted form.
- **Digilocker:** Bhavishya automatically push the ePPO in the Digilocker account of the retiree to access it anywhere/anytime without logging into Bhavishya.
- **Integration with Banks**: Bhavishya has been integrated with pension portals of various banks, to provide post-retirement services.

PM PRANAM

- The Ministry of Chemicals and Fertilisers recently provided information regarding the PM PRANAM initiative, in reply to a question.
- PM Programme for Restoration, Awareness Generation, Nourishment, and Amelioration of Mother-Earth (PM-PRANAM) was launched in 2023.
- It aims to save the health of Earth by promoting sustainable and balanced use of fertilisers, adopting alternate fertilisers and promoting organic and natural farming.
- The scheme **does not have a separate budget** and is <u>financed through the savings of existing fertiliser</u> <u>subsidy</u> under schemes run by the Department of Fertilisers.
- **50% of fertiliser subsidy saved** by States/UTs, by reduction in consumption of chemical fertilisers, compared to last 3 years' average consumption of chemical fertilisers, is **passed on to that State/UT as a grant**.
- 70% of the grant provided can be used for asset creation related to technological adoption of alternate fertilisers and alternate fertiliser production units at village, block and district levels.
- The remaining 30% grant money can be used for rewarding and encouraging farmers, panchayats, farmer producer organisations and SHGs that are involved in the reduction of fertiliser use and awareness generation.
- The fertilisers covered under the scheme are Urea, DAP (Diammonium Phosphate), NPK (Nitrogen, Phosphorus, Potassium) and MOP (Muriate of Potash).
- Data available on a fertiliser Ministry dashboard, **iFMS (Integrated fertilisers Management System)**, is used for this purpose.

Omkareshwar Floating Solar Project

- SJVN Green Energy Limited (SGEL), a wholly owned subsidiary of SJVN, commissioned a 90 MW
 Omkareshwar Floating Solar Project.
- The Project is housed in Omkareshwar Floating Solar Park located on River Narmada, in Khandwa, Madhya Pradesh. This Park is the largest floating solar park in India.
- The project has been developed at a cost of Rs. 646.20 crores & is expected to generate 196.5 million units of energy in first year.
- The estimated cumulative energy generation over a period of 25 years shall be 4629.3 million units.

- On commissioning, it will **reduce 2.3 lakh tons of carbon emission** and will significantly contribute to government's mission of net zero carbon emission by 2070. The project will also <u>help in water conservation</u> by reducing water evaporation.
- As of June 2024, India's installed solar energy capacity has grown significantly to 85.47 GW.
- Moreover, as of June 2024, India has an **installed renewable energy capacity of 195 GW**. This includes 47 GW hydro, 47 GW wind, 11 GW bio power and 5 GW of small hydro.

Green Tug Transition Program

- The Ministry of Port Shipping and Waterways has launched the SOP for Green Tug Transition Program (GTTP). GTTP is a key initiative under the 'Panch Karma Sankalp', announced in 2023.
- GTTP is designed to <u>phase out conventional fuel-based harbour tugs</u> operating in Indian Major Ports and replace them with green tugs powered by cleaner and more sustainable alternate fuels.
- A **tugboat** or **tug** is a marine vessel that navigates other vessels by pushing or pulling them, with direct contact or a tow line.
- These boats typically tug ships in circumstances where they cannot or should not move under their own power, such as in crowded harbors or narrow canals, or cannot move at all, such as barges, disabled ships, log rafts, or oil platforms.
- The program is expected to involve an investment of around Rs 1000 crores in building these green tugs.
- The first set of tugs will be battery-electric, with provisions for adopting other emerging green technologies such as hybrid, methanol, and green hydrogen as the industry evolves.
- Phase 1 of the GTTP will begin in October 2024 and continue until December 2027.
- During this phase, four Major Ports—Jawaharlal Nehru Port Authority, Deendayal Port Authority, Paradip Port Authority, and V.O. Chidambaranar Port Authority—will procure or charter at least two green tugs each.
- By the end of 2040, all tugs operating in Indian Major Ports are envisioned to transition to green tugs, ensuring a standardized, eco-friendly fleet across the country.

Significance

- The program not only aligns with environmental goals but will also be a major boost to the domestic tug
 industry, with all tugs built under this program constructed in Indian shipyards as part of Make in India
 initiative.
- This will help in promoting domestic innovation and manufacturing in the maritime industry.
- It is also expected to create <u>significant employment opportunities</u> in shipbuilding and ship design.

Panch Karma Sankalp

- Green Tug Transition Programme
- Development of Green Hydrogen Hubs: Deendayal Port, Kandla, and VO Chidambaranar Port, Tuticorin
- Facilitation and Monitoring of River and Sea Cruises: A Single Window Portal will be designed
- Transformation into **Smart Ports:** Jawaharlal Nehru Port and VO Chidambaranar Port, Tuticorin, will become smart ports by 2024.
- Cargo Movement and Growth in IWT:30% financial support for the promotion of Green Shipping.

Modal Solar Village

- The Ministry of New and Renewable Energy issued scheme guidelines for implementation of Model Solar
 Village component under PM-Surya Ghar: Muft Bijli Yojana.
 - The PM-Surya Ghar: Muft Bijli Yojana was approved in February 2024, with the aim to increase the share of solar rooftop capacity and empower residential households to generate their own electricity.
 - The scheme has an outlay of Rs 75,021 crore and is to be implemented till 2026-27.
- Under the scheme component, emphasis has been laid on creating one model solar village per district
 across India, to promote solar energy adoption and enable village communities to become self-reliant in
 energy needs.
- A financial outlay of Rs 800 crore has been allocated for this component, providing Rs 1 crore per selected
 Model Solar Village.
- The selection process involves a competitive mode. In order to be considered under the competition mode,
 a village must be a revenue village with a population size above 5,000 (or 2,000 for special category states).
- The villages will be assessed on their overall distributed renewable energy (RE) capacity installed on 6 months after the declaration of the potential candidate by district-level committee (DLC).
- The winning village in each district, with the highest RE capacity, will receive a central financial assistance grant of Rs 1 crore.
- The **implementation** of this scheme will be done by State/UT Renewable Energy Development Agency under the supervision of District Level Committee (DLC), ensuring that selected villages transition effectively to solar-powered communities.

Eri Silk

- The North-Eastern Handicrafts and Handlooms Development Corporation (NEHHDC) under the Ministry of Development of North-Eastern Region (DoNER), has obtained the prestigious Oeko-Tex certification from Germany, for Eri Silk.
- Eri silk is a protein fibre derived from cocoons made by **Philosamia Ricini moth**. It is predominantly found in North-East India and some parts of China and Japan.
- North-East India has the unique distinction of being the only region producing four varieties of silk-Mulberry, Oak Tasar, Muga and Eri.
- The name Eri is derived from the Assamese word "era" which means castor, as the silkworm feeds on castor
 plants. Eri silk is also known as endi or errandi in India and it has also been given the Geographical Indication
 tag.
- Eri Silk is renowned as the **world's only vegan silk**, where, unlike other silks, the moth inside the cocoon is not killed. Instead, the moth naturally exits the cocoon, leaving it behind for use.
- The woolly white silk is often referred to as the fabric of peace as it is processed without killing the silkworm. This process results in a silk called Ahimsa silk.
- This ethical and eco-friendly process sets Eri Silk apart, making it a symbol of compassion and sustainability in the textile industry.
- The isothermal properties of Eri silk makes it cool in summer and its thermal properties make it warm in winter, hence it is known as an **all-weather fibre**.

Oeko-Tex certification

• It is a rigorous standard that ensures textiles are tested for harmful substances and produced in environment friendly conditions.

• The certification is a significant step in bringing Eri Silk closer to penetrating the global export market, expanding its reach, and establishing a strong international presence.

Central Banker Report Cards 2024

- RBI Governor Shaktikanta Das has been rated A+ in the *Global Finance Central Banker Report Cards 2024*. Das been ranked in the top 3 and rated A+ for the second consecutive year in a row.
- Central banks are responsible for regulating a nation's monetary policy, including controlling inflation, managing interest rates, and ensuring the stability of the financial system.
- They act as the "lender of last resort," providing necessary funds to commercial banks during periods of financial distress to prevent systemic failures while maintaining price stability.
- Led by their central bank governors—key figures responsible for shaping monetary policy, ensuring financial stability, and effectively communicating with the public—central banks play a crucial role in influencing overall economic performance.
- The Central Banker Report Cards is an annual publication by Global Finance since 1994.
- It assesses and grades the performance of central bank governors in 101 significant countries, territories, and regions.
- It also covers entities such as the European Union, the Eastern Caribbean Central Bank, the Bank of Central African States and the Central Bank of West African States.
- It celebrates those bank governors whose strategies outperformed their peers through originality and creativity.
- The grades are based on a **scale from A to F** for success in inflation control, economic growth goals, currency stability and interest rate management. An "A" grade represents an excellent performance down through an "F" for outright failure.

CEA Launches 3 Online Portals

The Ministry of Power recently launched three online portals - JAL VIDYUT DPR, PROMPT and DRIPS.

JAL VIDYUT DPR

- Developed by Central Electricity Authority (CEA), it is a strategic initiative aimed at strengthening the development of hydropower and pumped storage projects (PSPs) in the country.
- The portal offers a centralized digital platform for monitoring survey and investigation activities related to hydro and pumped storage projects.
- The portal is designed to enhance efficiency and transparency in the Detailed Project Report (DPR) preparation process.
- It facilitates seamless communication between developers and appraising agencies, including the Central Water Commission (CWC), Geological Survey of India (GSI), Central Soil and Materials Research Station (CSMRS), and the Ministry of Environment, Forest and Climate Change (MOEF&CC).
- By providing real-time tracking and visibility of pending tasks with appraising agencies and developers, it aims to expedite workflows and streamline communication.
- This aligns with the government's initiatives to promote ease of doing business by reducing timelines for appraisals and approvals of DPRs.

CEA: Established in 1951 under the *Electricity* (Supply) Act of 1948 and later replaced by Electricity Act, 2003.

It operates under the **Ministry of Power** and prepares the National Electricity Plan.

Portal for Online Monitoring of Projects – Thermal (PROMPT)

- The PROMPT portal has been developed by **CEA** in association with **National Thermal Power Corporation** (NTPC).
- Real-Time Tracking and Analysis of thermal power projects under construction in India. The portal provides a
 centralized platform for monitoring all aspects of project execution, enabling swift identification and
 resolution of potential issues.
- Transparency and Accountability: By digitizing the monitoring process, the portal ensures greater transparency in project management, leading to timely resolution of issues, reduction in time and cost overruns, and enhanced project execution efficiency.
- Resource Optimization: It supports predictable resource availability, aiding in meeting the country's electricity demand at a reasonable price, ultimately benefiting consumers.

Disaster Resource Inventory for Power Sector (DRIPS)

- Natural disasters across India in the past few years, i.e. Cyclone Fani in Odisha, severe floods in Jammu & Kashmir, extensive flooding in Kerala—has highlighted the vulnerability of infrastructure, particularly in the power sector.
- Moreover, coastal states/UTs face unique challenges due to their geographic location.
- These catastrophic events have highlighted the urgent need for comprehensive disaster preparedness and response strategies.
- Developed by CEA the DRIPS portal will enable transparent, coordinated and effective working of the power sector in the country during adverse situations.
- It will serve as a single point of contact for all the designated nodal officers of all the departments of power sector and other agencies in the affected districts, states for managing the inventory of specific power system equipments and critical supplies.
- It would allow for rapid identification and deployment of necessary resources, ensuring that power sector disruptions are addressed promptly and efficiently in a disaster situation.

Purandar Figs

- The Agricultural and Processed Food Products Export Development Authority (APEDA) facilitated the export of India's first ready-todrink fig juice, made from Purandar Figs, to Poland.
- This event marks a significant achievement in promoting India's unique agro-products on the global stage.
- It not only showcases the potential of Indian agro-products but also underscores the importance of R&D in enhancing the value of agricultural exports.
- The fig is cultivated in many villages of Purandar taluk in Pune district.
- Purandar figs are known for their unique tastes and textures. It has high pulp content and rich source of vitamins & minerals. Moreover, it has excellent sweet taste, an attractive violet colour.

APEDA

- It was established under the Agricultural and Processed Food Products Export Development Authority Act passed by the Parliament in 1985.
- Headquartered in New Delhi, it functions under the Ministry of Commerce and Industry.



Functions

- · Promotion of export oriented production and development of the scheduled products;
- · Registration of persons as exporters of the scheduled products;
- Fixing of standards and specifications for scheduled products for the purpose of exports;
- Improving of packaging of the scheduled products;
- · Improving of marketing of the scheduled products outside India;
- Training in various aspects of the industries connected with the scheduled products;
- It also functions as the Secretariat to the National Accreditation Board (NAB) for the implementation of accreditation of the Certification Bodies under National Programme for Organic Production (NPOP) for Organic exports.
- APEDA has been entrusted with the responsibility of monitoring the import of sugar as well.

- The specialties are attributed to the climatic factors, red-black soil & salt-free well irrigation technique followed in the region.
- The product, which has been **granted a provisional patent**, represents a significant innovation in the agricultural sector. It has also been awarded the **Geographical Indication (GI) tag**.

109 Biofortified Crops Released

- The Prime Minister recently released 109 high yielding, climate resilient and biofortified varieties of crops at India Agricultural Research Institute (IARI).
- The 109 varieties of 61 crops released included 34 field crops and 27 horticultural crops.
 - Among the field crops, seeds of various cereals including millets, forage crops, oilseeds, pulses, sugarcane, cotton, fibre and other potential crops were released.

Among the horticultural crops, different varieties of fruits, vegetable crops, plantation crops, tuber

crops, spices, flowers and medicinal crops were released.

 These new varieties will be highly beneficial as they will help reduce expenditure, while yielding a good crop and also have a positive impact on the environment.

Benefits of Biofortification

- It **provides nutrients in natural form**, thus nutrients enter the body as part of natural food matrix.
- People can afford the biofortified food as it does not involve any additional price.
- Biofortified varieties are as high yielding as traditional varieties, thus no loss is incurred to the farmers.
- It does not require elaborate infrastructure facility as required in food fortification.
- It does not need elaborate distribution system as required in medical supplementation.
- It does not involve additional cost on preparing the enriched food grains.

Nitrogen Use Efficiency Of Rice Varieties

- Biotechnologists at the Guru Gobind Singh Indraprastha University (GGU) in New Delhi have discovered a
 wide variation among popular varieties of rice in India in their nitrogen use efficiency (NUE).
- NUE refers to the yield of a crop relative to the nitrogen (natural and artificial) available to it.
- In the above mentioned study, the NUE of the best varieties were five times as much as the least. However,
 a high NUE doesn't always mean the highest yields and farmers in India generally prefer varieties with the
 highest yields.
- The focus of Indian agriculture has for a long time been to solely increase yield. This was necessary during the Green Revolution but this also meant more synthetic fertilizers, more wastage, and pollution.
- Cereals consume two-thirds of all urea in India, led by rice. <u>Poor NUE wastes N (nitrogen)-fertilizers worth ₹1</u> trillion a year in India and over \$170 billion per year globally.
- Worse, N-fertilizers are the main source of nitrous oxide (N2O) and ammonia pollution of air and nitrate/ammonium pollution of water, affecting our health, biodiversity, and climate change.



- India is the world's second-largest source of nitrous oxide, a greenhouse gas that heats up the atmosphere far more than carbon dioxide.
- Nearly 11% of such global manmade emissions in 2020 were from India, topped only by China at 16%.
- The major source of these emissions is fertilizer usage, according to a global assessment of N2O emissions conducted in June 2024.

Way Ahead

- India has thousands of rice varieties but only a few are actually used and studied as part of agricultural research. To find newer crops that have improved NUE and yields, it is important to have a wider approach.
- While some improvements in NUE could be done by improving fertilizer formulations, legume-based croprotations and crop management practices, it has now become necessary to lay more stress on improving the crop using biotechnology.
- This knowledge can be used to develop newer varieties that use less nitrogen and are high-yielding, thus reducing expenditure on imported fertilizers and reducing nitrogen-linked pollution.

Amendments In Indexation for LTCG

- The Ministry of Finance recently announced an amendment regarding the Long Term Capital Gains (LTCG) tax proposal on real estate.
- The amendment gives tax payers an option to switch to a new lower tax rate or stick to the old regime that had higher rate with indexation benefit.
- The amendment comes after a proposal to remove indexation benefit in calculation of long-term capital gains on sale of immovable properties in the Budget 2024-25 had led to criticism from experts.
- The Budget had proposed a lower 12.5% rate of LTCG tax, down from 20%, while removing the indexation benefit.

Indexation

- Indexation is the process of adjusting the original purchase price of an asset or investment in order to neutralise the impact of inflation on it.
- Put simply, it involves **revising upward** the cost of acquisition of an asset based on the inflation over the period for which it was held.
- Inflation reduces the value of money over time, and therefore, when an asset is sold or an investment is redeemed, indexation helps in arriving at the cost of acquisition with the *impact of inflation over the holding period factored in*.
- The cost of acquisition thus arrived at, is called the indexed cost of acquisition. It resets the base for calculation of gains or losses from the sale or redemption.
- The returns calculated on the indexed cost of acquisition are generally seen as more realistic than absolute gains calculated on the basis of the actual price at the time of purchase.
- Without indexation, particularly in cases where the asset was held for an extended period, the gains may appear extremely high, but it may not be a realistic picture.

Yen Carry Trade

- Recently, major stock markets across the world experienced their sharpest decline in decades.
- There are various reasons for cautious investor sentiment for instance, the US economy is facing
 increasing odds of an economic recession or rising geopolitical tensions due to growing tensions in West
 Asia.

• However, there was a new global trigger that led to this decline, the unwinding of the yen carry trade.

Yen Carry Trade

- Global investors are always looking for opportunities to make money.
- One way to do this is to borrow money in a country where the interest rates are low and invest that money in a country where the interest rates are higher. Simply put, this is called a **carry trade**.
- Such opportunities can exist because central banks of different countries try to keep interest rates at a level that suits their specific economic conditions.
- For example, in Japan the central bank Bank of Japan (BoJ) had kept interest rates at zero percent between 2011 and 2016 and, in fact, pushed them even below zero (-0.10%) since 2016. The <u>idea behind</u> low interest rates is to stimulate economic activity.
- For instance, such low interest rates incentivise investors to borrow cheaply in yen and invest in other countries (such as Brazil, Mexico, India and even the US) to earn better returns. Such carry trades are called **yen carry trades**.
- Since the BoJ continued to keep interest rates so low for so long it incentivised billions of dollars of yen carry trades, and these borrowings fuelled investments in several countries across the world.

Recent Changes

- BoJ recently raised its main interest rate to 0.25% a significant change from its ultra-loose monetary policy.
- This unexpected move caused a sharp appreciation of the yen, surprising many investors who had bet on its continued decline.
- The rapid strengthening of the yen has resulted in substantial losses for those engaged in yen carry trades. As the cost of borrowing in yen has increased, the profitability of these trades has diminished.
- This **sharp reversal in interest rates** led to what is termed as the "**unwinding**" of the yen carry trade.
- In other words, it led to investors who had borrowed in yen and invested in Brazilian real or Mexican peso or Indian rupee, selling their assets in international markets.

Green Shoots

- Auto markets will see green shoots by October 2024 as per Maruti Suzuki.
- Green Shoots is a term generally applied to signs of recovery from an economic recession.
- The phrase derives from the green shoots seen in plants that signify health and growth. Therefore, it has been used as a metaphor for a recovering economy.
- The term was first used by **UK chancellor Norman Lamont** to refer to economic growth during the economic downturn in the United Kingdom in 1991.

Open Market Sale Scheme

- The Government recently shared that grain deficient states can directly purchase from Food Corporation of India (FCI) under the Open Market Sale Scheme (Domestic) (OMSS [D]) without participating in the e-auction.
- The decision has been taken to reduce the huge surplus of stocks ahead of the new procurement season.

OMSS

- Firstly, the procurement of food grains like wheat and paddy for the central pool happens in Rabi and Kharif marketing seasons by the FCI and State corporations
- According to procurement estimates finalised by the Union Government before the seasons, these purchases happen as per the Minimum Support Price.

- From the central pool, the government has to set aside wheat and rice for the 80 crore beneficiaries of free foodgrains under the National Food Security Act (NFSA), maintain a buffer stock, and have a marketable surplus.
- Under the OMSS, the FCI sells surplus food grains from the central pool especially wheat and rice in the open market to traders, bulk consumers, retail chains etc at pre-determined prices.
- FCI does this through e-auctions where open market bidders can buy specified quantities at the prices <u>set at</u> the start of a cycle and revised routinely.
- FCI conducts a weekly auction in the open market using the platform of commodity exchange NCDEX (National Commodity and Derivatives Exchange Limited).
 - NCDEX is a commodity exchange platform in India that provides a platform for trading in various agricultural and other commodities
- Usually, states are also allowed to procure food grains through the OMSS without participating in the auctions, for their needs beyond what they get from the central pool to distribute to NFSA beneficiaries.
- The idea is to activate the OMSS during the lean season, the time between harvests, to improve and regulate domestic supply and availability of the two grains and bring down their prices in the open market. Essentially this makes the scheme a measure to curb food grain inflation.

Global Employment Trends for Youth

The International Labour Organisation (ILO) recently released the Global Employment Trends for Youth 2024 report.

Key Points

- Resilient economic growth after the Covid-19 pandemic along with a strong rebound in labour demand has improved the global labour market outlook for young people belonging to the 15-24 age group.
- The global unemployment rate for youth aged 15 to 24 years reached 13 per cent in 2023, a 15-year low and a fall from the pre-pandemic rate of 13.8 per cent in 2019. It is expected to fall further to 12.8 per cent this year and the next year.
- Further, the number of unemployed young people worldwide stood at 64.9 million, the lowest figure recorded since the turn of the millennium.
- The youth employment-to-population ratio (EPR) reached its pre-pandemic level at 35%
- The picture, however, is not the same across regions and genders. In the Arab countries, East Asia,

Southeast Asia, and the Pacific, youth unemployment rates were higher in 2023 than in 2019.

- Similarly, the drop in the **youth unemployment rate** has been smaller among women.
- The youth unemployment rates of both young women and young men in 2023 being nearly equal (at 12.9 per cent for young women and 13

per cent for young men), unlike pre-pandemic years when the rate for young men was higher.



- Although EPR bounced back to its pre-pandemic level, it remains well below the levels seen in the early 2000s. The report suggested an ideal EPR of 40 per cent for both men and women.
- Comparing it with the current ratio, there is a deficit of 79 million jobs for young workers, 91 per cent of that for females. Differently put, 72 million of the total 79 million missing youth from the workforce are women.

• Further, the number of young people who are *not in employment, education or training (NEET)* is

concerning, as it stood at 20.4% with two in three young NEETs globally being women.

 In low-income countries, only one in five young adults aged 25 to 29 manage to find a secure paid job — a job with a paying employer and a contract greater than one year in duration.



▶ Share of youth population (15-24) attending school or training by

2023

country income group, 2000 and 2023 (%)

- The share of young adults working in a secure paid job is significantly higher in high-income countries (at 76% in 2023) but the incidence of
 - countries (at 76% in 2023) but the incidence of temporary work has risen in those countries too.
- The global trend towards the casualisation of labour serves as a source of increasing anxiety among young people striving to move towards financial independence and the next stages of adulthood.

Indian Scenario

- India reflects the global trend in youth unemployment. The rate more than doubled from 5.7 per cent in 2000 to 17.5 per cent in 2019 but decreased to 12.4 per cent in 2022, according to another ILO report released earlier this year.
- However, challenges remain, with higher unemployment rates among graduates and women.
- Additionally, according to the World Bank, 23.5 per cent of Indian youth were classified as NEET in 2023. This situation is concerning, given the narrow timeframe India has for capitalising on its demographic dividend.
- Thus, while youth employment is a global challenge, it is particularly critical for India due to its large youth population.
- The latest Economic Survey emphasised that India needs to create nearly 7.85 million non-farm jobs annually until 2030 to accommodate the growing workforce.
- Although the recent Union Budget announced schemes to boost hiring by private companies, the broader challenge remains significant.
- The road ahead requires a concerted effort to develop comprehensive strategies that not only create jobs but also ensure that these opportunities are accessible to the youth across all regions and demographics.
- The success of these initiatives will be crucial in securing sustainable economic growth in the medium to long run.

Andhra Pradesh Community Managed Natural Farming

- The Andhra Pradesh Community Managed Natural Farming (APCNF) has won the 2024 Gulbenkian Prize for Humanity.
- The APCNF shares this year's prize with two others-renowned soil scientist Rattan Lal and Egypt-based SEKEM, a conglomeration of NGOs and businesses championing holistic approaches to tackle climate change.
- The award is instituted by Portugal-based Calouste Gulbenkian Foundation (CGF) and presented annually to
 individuals and organisations contributing to global food security, climate resilience and ecosystem
 protection.
- APCNF is an initiative launched in 2016, through Rythu Sadhikara Samstha (RySS) by Andhra Pradesh government.
- It is a statewide programme supporting smallholder farmers to switch from chemically intensive agriculture to natural farming.

- It involves practices such as using organic residues and minimising tillage to improve soil health, reintroducing indigenous seeds and diversifying crops, including trees.
- The programme aims to reach all eight million farmer households in Andhra Pradesh over the next 10 years.
- Andhra Pradesh is also supporting 12 other States in the country and this year (2024-25) the State plans to send its farmers to five different countries to take natural farming to farmers there.

Natural Farming

- Natural Farming is a chemical-free traditional farming method. It is considered as an agroecology based diversified farming system which integrates crops, trees and livestock with functional biodiversity.
- State of Andhra Pradesh, Karnataka, Himachal Pradesh, Gujarat, Uttar Pradesh and Kerala are among the leading states.
- Important practices essential for adoption of natural farming include:
 - No external inputs;
 - Local seeds (use of local varieties);
 - o On-farm produced microbial formulation for seed treatment and soil enrichment;
 - Crop covering and mulching with green and dry organic matter for nutrient recycling and for creating a suitable micro-climate for maximum beneficial microbial activity in soil;
 - Mixed cropping;
 - Managing diversity on farm through integration of trees;
 - Management of pests through diversity and local on-farm made botanical mixtures (such as neemastra, neem ark etc);
 - Integration of livestock, especially of native breed for cow dung and cow urine as essential inputs for several practices;
 - Water and moisture conservation.

Growth in Mineral Production

- Production of key minerals in the country, such as iron ore and limestone, has continued to show robust growth in Q1 of FY 2024-25, after reaching record production levels in FY 2023-24.
- Production of iron ore was 277 million metric ton (MMT) and limestone at 450 MMT in FY 2023-24.
- India is the 2nd largest Aluminium producer, 3rd largest lime producer and 4th largest iron ore producer in the world.
- Continued growth in production of iron ore and limestone in the current financial year reflects the robust demand conditions in the user industries viz. steel and cement. Coupled with growth in Aluminium, these growth trends point towards continued strong economic activity in user sectors such as energy, infrastructure, construction, automotive and machinery.

Multilateral Investment Guarantee Agency

The World Bank's Multilateral Investment Guarantee Agency (MIGA) is in the process of strengthening its
partnership with India substantially to help boost the country's energy transition and other development
initiatives.



- Earlier, MIGA had supported only one small project in India in 1997. But over the last six months, it signed up for a \$317.5-million solar refinancing project with State Bank of India and a \$132-million plan with Dedicated Freight Corridor Corporation.
- MIGA now wants India to use its credit guarantee instruments to crowd in private investors in development projects, not just at home but also in other developing countries.
- Established in 1988, MIGA is a member of the World Bank Group and is headquartered in Washington D.C.
- MIGA is owned and governed by its member states but has its own executive leadership and staff which
 carry out its daily operations. Its shareholders are member governments that provide paid-in capital and
 have the right to vote on its matters.
- Its mandate is to promote cross-border investment in developing countries by providing guarantees (political risk insurance and credit enhancement) to investors and lenders.
- Its guarantees protect investments against non-commercial risks and can help investors obtain access to funding sources with improved financial terms and conditions.

SWIFT Launches AI Pilot To Tackle Payment Fraud

- Society for Worldwide Interbank Financial Telecommunications (SWIFT) is launching an artificial intelligence (AI)-driven pilot in partnership with Axis Bank to help fight payments fraud occurring in cross-border payments.
- According to the Reserve Bank of India, fraud cases in the banking sector increased nearly 300% over the past two years, reaching 36,075 cases in 2023-24.
- In 2023, according to the Nasdaq-Verafin Global Financial Crime Report, global fraud incurred a staggering cost of \$485 billion.
- The pilot is expected to use a secure infrastructure that will enable financial institutions to exchange relevant information with strong privacy-preserving controls.
- SWIFT's All anomaly detection model will then be able to gather insights and identify potential fraud patterns from a much richer dataset.
- The pilot will use AI algorithms to analyse historical transaction data and detect anomalies indicative of fraud in real time.

SWIFT

- SWIFT is a secure platform for financial institutions to exchange information about global monetary transactions such as money transfers.
- It was founded in **1973** to end reliance on the telex system, an international system used especially in the past for sending written messages.
- While SWIFT does not actually hold or move money, it operates as a middleman to verify information of transactions by providing secure financial messaging services to more than 11,000 banks in over 200 countries.
- Each participant on platform is assigned a unique eight-digit SWIFT code or a bank identification code (BIC).
- SWIFT delivers an average of <u>40 million messages a day</u> that includes orders and confirmations for payments, trades and currency exchanges.
- Based in Belgium, it is overseen by the central banks from eleven industrial countries: Canada, France, Germany, Italy, Japan, the Netherlands, Sweden, Switzerland, the United Kingdom, the United States and Belgium.

POLITY AND GOVERNANCE

AMRUT 2.0

Under the Atal Mission for Rejuvenation and Urban Transformation (AMRUT) 2.0, cities are likely to initiate projects worth Rs 5,000 crore, covering water supply, sewage treatment, and rejuvenation of water bodies and parks, as a part of governments 100-day agenda during its third term.

About AMRUT 2.0 (Nodal Ministry: Ministry of Housing and Urban Affairs (MoHUA))

Objective of AMRUT 2.0-

- To provide 100% coverage of water supply to all households in around 4,700 Urban Local Bodies (ULBs) by providing 2.68 crore urban household tap connections.
- To provide 100% coverage of sewage and septage in 500 AMRUT cities, by providing 2.64 crore sewer connections/ septage connections.
- Rejuvenation of water bodies & urban aquifer management to augment fresh water supply. This will reduce dependence on Ground Water Management.
 - ✓ The United Nations World Water Development Report 2022 said India was the largest groundwater user globally. The level of groundwater is fast depleting.
 - ✓ Ranging from 3 metres to 5 metres in depth, the shallow aquifers can be recharged relatively quicker, and by using less energy, compared to the deeper ones.
- Recycle & reuse of treated wastewater to cater to 20% of total water needs of the cities and 40% of industrial demand.



What is AMRUT?

- AMRUT was launched as the first water focused Mission in 2015. With a total Mission outlay of ₹1,00,000 crore covering 500 cities (all cities and towns with a population of over one lakh with notified Municipalities). AMRUT aimed to provide basic civic amenities like water supply, sewerage, urban transport, parks to improve the quality of life for all, especially the poor & the disadvantaged.
 - ** AMRUT follows a Project-based strategy while Smart Cities Mission (Also launched in 2015 for 100 cities) follows Area-based strategy.

What is AMRUT 2.0?

- AMRUT 2.0 scheme was launched on October 1, 2021, to provide universal water supply to all households in statutory towns through functional taps.
- The scheme is for a five-year period, from the financial year 2021-22 to 2025-26, and has a total outlay of ₹2,99,000 crore. The Central government will contribute ₹76,760 crore, and the remaining amount will be raised by the states and cities.
- AMRUT2.0 is built upon the progress of AMRUT to address water needs, rejuvenate water bodies, better manage aquifers, reuse treated wastewater with the aim to make around 4,700 towns / cities 'water secure' thereby promoting circular economy of water through the development of a City Water Balance Plan (CWBP).
- ✓ National Water Policy, 2012 advocates rainwater harvesting and de-salinization in urban & industrial areas, wherever techno-economically feasible, to increase the availability of utilizable water.
- To protect freshwater bodies from getting polluted to make natural resources sustainable.

Coverage-

- The Amrut 2.0 will extend coverage from 500 cities (under first phase) to 4,800 cities and towns.
- It will provide water tap connections to 26.8 million urban households.
- It will benefit more than 10.5 crore people in urban areas.

Features-

- 1. Covers 100% Urban Area- The upscaled mission now covers all 4,372 cities, covering 100% urban India as compared to only 500 cities covered in its first phase.
- 2. **Promotes Circular Economy of Water** through formulation of City Water Balance Plan for each city, focusing on recycle/reuse of treated sewage, rejuvenation of water bodies and water conservation.
- 3. Promotes Digital Economy & Global Technologies through being a Paperless Mission.

- 4. Pey Jal Survekshan- will be conducted to ascertain equitable distribution of water, reuse of wastewater and mapping of water bodies w.r.t. quantity and quality of water and promote healthy competition among the cities /towns.
- 5. **Promote Aatma Nirbhar Bharat (Self Reliant India)-** through encouraging Startups and Entrepreneurs and will lead to promotion of GIG economy and on-boarding of youth & women.
- 6. **Develop Urban Water Information System-** through National Remote Sensing Centre (NRSC) leading to Aquifer Management system.
- 7. **Capacity Building Programmes** Target based capacity building program will be conducted for all stakeholders including contractors, plumbers, plant operators, students, women etc.
- 8. Promotes Public Private Partnership (PPP)- as it has mandated the cities having million plus population to take up PPP projects worth minimum of 10% of their total project fund allocation which could be on Annuity/ Hybrid Annuity / BOT Model.

Reform Agenda under AMRUT 2.0-

- **Property Tax-** Notification on property tax related to circle rates & increasing periodically, and user charges related to Operation & Maintainance costs is a mandatory reform under AMRUT 2.0.
- Incentive Based Reforms- include Rejuvenation of water bodies in cities; Reducing non-revenue water to 20%; Rain water harvesting in all institutional buildings; Reuse of 20% treated waste water; Reuse of waste water to meet 40% industrial water demand; Development of green spaces & parks; Improving credit rating & access to market finance by ULBs; and Improving land use efficiency, through GIS based master planning & efficient town planning.

Challenges Faced-

- 1. Outdated Infrastructure: for water supply and sewerage in many cities is a problem and integrating new systems with existing infrastructure can be complex and costly. As per a NITI Aayog report, nearly 31% of urban Indian households do not have piped water and 67.3% are not connected to a piped sewerage discharge system.
- 2. **Technology Adoption**: like IoT-based monitoring systems, water metering, and GIS-based planning tools- can be slow, especially in smaller cities where awareness and technical know-how are limited.
- 3. Lack of Community Participation- in AMRUT as it is owned by bureaucrats, parastatals, and large technology-based companies. For example, in the governance architecture, the State level high powered committee is headed by the chief secretary with a private nexus of consultants and professionals with no representation from elected members of city.
- 4. **Deteriorating Air Quality** Air quality in AMRUT cities and in other large urban settlements continues to worsen and is not covered under AMRUT 2.0 which focuses only on water and sewerage as AMRUT 1.0 failed to address the air quality concerns.
- 5. **Delayed Fund Release** Delays in the release of funds from the central government to states, and from states to urban local bodies (ULBs), often disrupt project timelines and leads to cost overruns.
- 6. **Progress Monitoring** Many ULBs fail to maintain accurate and up-to-date data, which can hinder effective decision-making and project monitoring.
- 7. **Environmental Concerns** Ensuring water availability of water resources to meet the increased demand can lead to over-extraction of groundwater or reliance on distant water sources resulting in environmental degradation.
- 8. **Sustainability** Developing sustainable infrastructure which is resilient to climate change is a critical challenge as it requires eco-friendly construction practices, efficient waste management, and adaptation to potential climate impacts.

What Is The Government's 100-Day Agenda?

- To commission sewage treatment plants (STPs) with a total capacity of 500 million litres a day (MLD) benefiting around 6 lakh households, and 150 MLD of water treatment plants for 2 lakh households.
- Approving Delhi Master Plan 2041 and incubation of eight greenfield cities, each with Rs 1,000 crore funding as recommended by the 15th Finance Commission.

Dark Tourism

As the heavy rains triggered three landslides in Wayanad, severely impacting the nearby villages and killing hundreds of people, the Kerala Police advised the public to steer clear of the affected areas, warning that 'dark tourism' could impede vital rescue efforts.

What is Dark Tourism?

- Dark Tourism also known as grief tourism is the practice of visiting locations associated with death, suffering, tragedy, or something unusual such as cemeteries, mausoleums, disaster zones, battlefields, memorials, prisons, execution sites, and crime scenes.
 - For example, the ancient Romans would visit gladiatorial games, and people have long visited battlefields such as Waterloo or Gettysburg.
- Prominent dark tourism sites include Auschwitz Concentration Camp in Poland, Chernobyl in Ukraine, Ground Zero in New York (the site of the 9/11 attack), Hiroshima Peace Memorial Park in Japan, Roop Kund lake in Uttarakhand, Kuldhara village in Jaisalmer etc.



Type of Dark Tourism	Feature/s of Dark Tourism Places (with Example)
Dark Fun Factories	Centers are usually associated with children. They consist of escape rooms which evolve around a dark theme or zombie chases or theatrical activities
Dark Exhibitions	Portray death and suffering and can be visited for educational purposes to learn about the dark histories (the holocaust memorial in Berlin)
Dark Dungeons	Include criminal history and injustice (the Cellular jail, once known as Kala Pani, was a prison in the Andaman and Nicobar Islands)
Dark Shrines	The sites of death and misery and are visited only to pay respect to the deceased (Dome of the Rock in Jerusalem)
Dark Resting Place	Cemeteries and graveyards and are mostly visited to pay respect to loved ones (the Taj Mahal)
Dark Conflict Sites	Places where major battles were fought in the past and have now gained popularity due to its historical connection (Haldi Ghati in Rajasthan)
Dark Places of Mass Killing	Categorized into the darkest sites and lightest sites. (Jallianwala Bagh in Amritsar)

Why Is Dark Tourism Gaining Popularity?

- Emotional Connection- Visitors often seek to engage deeply with the history and culture of a location, emotionally connecting with the emotions of the victims as they pay their respects and reflect on the significance of historical events.
 - ✓ The site of the 2004 Indian Ocean tsunami in Thailand has become a dark tourism destination.
- **Unique Experience** Dark tourism sites provide distinct experiences from typical tourist attractions due to their unusual and unknown nature. Visiting such sites often prompts introspection about life, death & mortality, while helping visitors to appreciate life by confronting the gravity of past tragedies.
 - ✓ The Kigali Genocide Memorial in Rwanda commemorates the Rwandan Genocide of 1994.

- TV Series & Social Media- It plays a significant role in popularizing dark tourism by influencing the tourists to visit such locations as the posts, photos, and videos shared by users generate interest and curiosity, encouraging others to visit these sites for educational, leisure or content creation purposes.
 - ✓ Chernobyl in Ukraine, the site of the 1986 nuclear disaster, has seen a surge in visitors, especially after the release of the popular TV series "Chernobyl.

Dark Tourism Pros vs Cons

On positive side, Dark Tourism can help in educating the people about the associated history of the places, developing the surrounding places by boosting tourism and creating jobs but it can also pose physical or psychological risks like exposure to radiation or disturbing images or depression.

Conclusion

Dark tourism is a complex phenomenon that touches on history, ethics, and human psychology. While it offers opportunities for learning and reflection, it also poses significant ethical challenges. As interest in dark tourism continues to grow, it is crucial to approach these sites with respect and a deep understanding of their historical and cultural significance.

National Pharmaceutical Pricing Authority (NPPA)

The Union Minister of State for Chemicals Fertilizers informed the Rajya Sabha that many pharmaceutical companies received notices from the National Pharmaceutical **Pricing** Authority (NPPA) for over charging the essential drugs and government recovered penalty of Rs 73 crore in violation of the Drug Price Control Order (DPCO,2013).

DPCO, 2013 (issued under Sec. 3 of Essential Commodities Act, 1955)

- ◆ The DPCO covers 384 drugs listed (not All) in the National List of Essential Medicines (India NLEM - 2022), available in thousands of dosage forms & formulations in branded & unbranded categories.
- > Both scheduled and non-scheduled drugs are covered under DPCO, 2013.
 - Formulations listed in Schedule-I of the DPCO are classified as scheduled, while those not included are non-scheduled.
 - > The DPCO, 2013 uses a market-based pricing mechanism instead of the cost-plus method that was previously used.
- It provides for revising the ceiling prices for scheduled medicines annually based on the Wholesale Price Index (WPI). The revised price is notified by the NPPA on April 1st each year.
- For non-scheduled formulations (branded or generic), no manufacturer can increase the Maximum Retail Price (MRP) by more than 10% within a 12-month period. However, manufacturers may choose not to increase prices based on market considerations.
- The DPCO also helped to prevent monopolies in the pharmaceutical sector by monitoring prices and controlling unjustified price hikes, which helped to ensure a competitive market

About NPPA

It is an independent regulator set up in 1997 to fix and revise the prices of controlled bulk drugs, and formulations and to enforce accessibility and availability of the medicines in the country at affordable prices, under the Drugs (Prices Control) Order, 1995.

- ** According to the Economic Survey 2023-24, India's pharmaceutical industry is valued at \$50 billion and is the third largest producer of pharmaceutical products by volume in the world.
- ** The industry is expected to grow to \$130 billion by 2030.
- **India is a major exporter of pharmaceuticals, supplying over 50% of Africa's generic needs, 40% of the US's generic demand, and 25% of the UK's medicine.

Nodal Ministry- Department of Pharmaceuticals (DoP), Ministry of Chemicals and Fertilizers.

**The NPPA, the FDA/ Drugs Controller of the State, and Drugs Inspector of the District are the enforcing authorities at National / State/ District Levels.

Functions-

The NPPA's role is to ensure that medicines are available and affordable, while also helping the Indian pharmaceutical industry become a world leader. As per the provisions of DPCO, NPPA fixes two types of prices viz. Ceiling prices and Non-ceiling prices for medicines in the controlled category.

- Implementation and enforcement of Drugs Price Control Order (DPCO), 1995/2013.
- Undertaking and/or sponsoring studies related to pricing of drugs/formulations.
- Monitoring the availability of drugs, identifying shortages and taking remedial steps.
- Collecting/maintaining data on production, exports and imports, market share of individual companies, profitability of companies etc. for bulk drugs and formulations.
- Dealing with legal matters arising out of the decisions of the Authority.
- Advising and assisting the Central Government on changes/revisions in the drug policy.
- ** The manufacturer of a non-scheduled drugs (drugs not under direct price control) is not required to take price approvals from NPPA for such drugs. However, NPPA is required to monitor the prices of such drugs and take corrective measures where warranted and their includes the power to fix and regulate such prices.

Challenges Faced

- Lack of Price Standardization- The higher prices of branded drugs compared to unbranded ones highlight the lack of price standardization in the market.
- Evasion of Penalties- Each year, numerous pharmaceutical companies receive notices from the NPPA for DPCO violations and with penalties often running to hundreds of crores, but many companies evade payment through legal challenges or other means.

Clean Plant Programme

In a transformative move for India's horticulture sector, the Union Cabinet recently approved the Clean Plant Programme (CPP) with an outlay of Rs 1,766 crore, under the Mission for Integrated Development of Horticulture (MIDH).

Mission for Integrated Development of Horticulture (MIDH)

About MIDH- It is a Centrally Sponsored Scheme introduced in 2014-15 for holistic growth of the horticulture sector covering fruits, vegetables, root and tuber crops, mushrooms, spices, flowers, aromatic plants, coconut, cashew, cocoa.

- ** Nodal Ministry: The Ministry of Agriculture and Farmers Welfare
- ** M.H. Marigowda is considered the Father of Indian Horticulture.

Objectives & Key Interventions under MIDH -

- Enhancing Production and Productivity- by improving the yield and quality of horticultural crops through better planting materials (By establishing nurseries and tissue culture), efficient resource management (Drip Irrigation; Water Harvesting), and modern technologies.
- **Post-Harvest Management-** by developing infrastructure for storage, processing, and marketing (domestic and international), ensuring better value for farmers.
- **Promoting Sustainable Practices-** by adopting sustainable and eco-friendly practices in horticulture (Setting up polyhouses, greenhouses, shade net houses, and walk-in tunnels etc), including organic farming and integrated pest management.
- Capacity Building- by providing training and technical support to farmers through existing institutions like State Agriculture Universities, Krishi Vigyan Kendras & Institutes with Department of Horticulture in States; helping them adopt modern horticultural practices & improve their income.

Key Components-

• National Horticulture Mission (NHM) - Launched in 2005 as a Centrally Sponsored Scheme (CSS) and Focuses on the development of horticulture in states and union territories.

- Horticulture Mission for Northeast and Himalayan States (HMNEH) Addresses the specific needs of the northeastern and Himalayan regions.
- National Bamboo Mission (NBM) Dedicated to promoting bamboo cultivation and its value chain.
- Coconut Development Board (CDB) Works on the development of the coconut sector.
- Central Institute of Horticulture (CIH): in Nagaland provides technical back stopping through capacity building and training of farmers and Field functionaries in the Northeastern Region.

About the Clean Plant Programme (CPP)

Core Components of CPP

- 1. Clean Plant Centers (CPCs): Nine world class state-of-the-art CPCs, equipped with advanced diagnostic therapeutics and tissue culture labs, will be established across India for producing and maintaining virus-free planting material meant for larger propagation at Pune, Srinagar & Muktheshwar, Nagpur, Bikaner, Bengaluru, Lucknow, Sholapur and in Eastern India.
- Certification and Legal Framework: A robust certification system will be implemented, supported by a regulatory framework under the <u>Seeds Act 1966</u>, to ensure thorough accountability and traceability in planting material production and sale.
- 3. **Enhanced Infrastructure**: Support will be provided to large-scale nurseries for the development of infrastructure, facilitating the efficient multiplication of clean planting

WHAT IS CPP?

CPP has been introduced by the Ministry of Agriculture and Farmers Welfare to address critical issues in horticulture by providing access to high-quality, virus-free planting material.

IMPLEMENTED BY

National Horticulture Board (NHB) in collaboration with the Indian Council of Agricultural Research (ICAR).

OBJECTIVES-

- To enhance the quality and productivity of horticulture crops across the country while benefiting various stakeholders, from farmers to consumers.
- Bolster India's position in the global horticulture market.

material. Need for CPP

- 1. Increased Production: India is the second largest producer of fruits and vegetables in the world after China with 352 million metric tonnes (MT) of production. Its area under horticulture crops has risen from 24 million hectares (2013) to 28.63 million hectares (2024).
- 2. Major Exporter and Importer of fresh fruits- In the financial year 2023-24, India exported fresh fruits worth \$1.15 billion, while it imported fruits worth \$2.73 billion. With the rising consumption of fruits in the country, demand has specifically increased for planting materials of foreign apples, and "exotics" such as avocado and blueberry.
- 3. **Cumbersome Importing Process** of plants at present as the imported plants have to be kept in quarantine for two years. The CPCs will cut this period down to six months, and thus make it easier for farmers to access disease free and genuine planting material for horticultural crops in India.

Benefits

1. For Farmers-

- Increased Yield and Reduced Crop Losses: By providing virus-free, superior planting material, the impact of diseases and pests will decrease.
- Enhanced Income Opportunities: Higher quality produce will lead to better market prices and income for farmers.
- Inclusion and Sustainability:
 - → By providing access to clean plant material for all farmers, regardless of their landholding size or socioeconomic status.

- → By actively engaging women farmers in its planning and implementation, ensuring their access to resources, training and decision-making.
- → By addressing diverse agro-climatic conditions and developing region-specific clean plant varieties and technologies.

2. For the Horticulture Sector

- **Boost Export Potential:** as higher-quality, disease-free fruits will enhance India's position as a leading global exporter and expand market opportunities.
- Increased Job Opportunities: in horticulture sector.
- Sustainable Agriculture: by promoting the use of clean planting material.
- **Nurseries Propagation**: through streamlined certification processes and infrastructure support will foster growth.
- 3. For Consumers: They can enjoy fruits that are not only virus-free but also enhanced in taste, appearance, nutritional value and are safe to consume, reducing the risk of foodborne illnesses.

Nandini Sahakar Yojana

Recently, the Minister of Cooperation informed the Rajya Sabha about the Nandini Sahakar Scheme.

About The Nandini Sahakar Yojana

It is a women focused framework of financial assistance, project formulation, handholding and capacity development launched by the National Cooperative Development Corporation (NCDC). It is aimed at assisting **women cooperatives** to take up business model-based activities/services mandated to NCDC, in any sector except urban housing.

Objectives- To improve socio-economic status of women, support their entrepreneurial dynamism through women cooperatives.

Eligibility- The following cooperatives are eligible-

- Any Women Cooperative Society registered under any State/ Multi State Cooperative Societies Act.
- Any cooperative society with minimum 50% women members at primary level.
- In case of projects related to new and/ or innovative activities, women cooperatives which are in operation for at least three months.

Funding:

- There is no minimum or maximum limit on financial assistance to projects by women cooperatives and the loan will be provided for 5-8 years (including 1-2 years of moratorium on repayment of principal, depending on the type of project and revenue streams) either DIRECTLY or through State Government/ UT Administration to eligible cooperatives.
 - √NCDC has disbursed financial assistances of Rs.6426.36 crore for the development of cooperative societies exclusively promoted by women across the country.

ABOUT NCDC

NCDC is an apex level statutory autonomous institution headquartered in New Delhi under the administrative control of Ministry of Cooperation set up in 1963 exclusively for cooperatives at Primary, District, Apex / Multi-state and national level.

- It plans and promotes programmes for production, processing, marketing, storage, supply chain, export and import of agricultural produce, foodstuffs, industrial goods, livestock, commodities and services like tourism, rural housing, renewable energy, banking, hospital & healthcare and education etc. on cooperative principles.
- It operates on open market principles, without any budgetary support from the Government and is the most preferred for cooperatives.
- It encourages women cooperatives to avail financia assistance under its various schemes like Nandini Sahakar and Swayam Shakti Sahakar Yojna.
 - Swayam Shakti Sahakar Yojna: under this scheme, NCDC provides financial assistance to Agricultural Credit Cooperatives for providing loan/advances to Women Self Help Groups (SHGs).

- NCDC provides 2% interest subvention on its rate of interest on term loan portion for new and innovative activities.
 - ✓ activities other than new and innovative activities:1% interest subvention on its rate of interest on term loan portion for all other activities.

Benefits of the Scheme

- **1.Financial Assistance** provided through term loans and interest subvention offered on these term loans can reduce borrowing costs.
- 2. Capacity Building of women cooperative members through training & skill development programs.
- **3.**Handholding Support: Provides guidance & support throughout the project implementation process.
- **4.Socio-Economic Empowerment:** It will help women to generate income, become financially independent and improve their standard of living.
- 5. Aligns with Government Policy of Atmanirbhar Bharat.
- 6. Supports Entrepreneurial Dynamism of women through women cooperatives.
- 7. **Converges Critical Inputs** of women's enterprise, business plan formulation, capacity development, credit and subsidy and interest subvention of other schemes.

No Confidence Motion Against Vice President

Around 50 Opposition MPs, signed a resolution to bring a no-confidence motion against Vice-President (VP- Exofficio Chairman of Rajya Sabha) Jagdeep Dhankhar under Article 67(b) of the Indian Constitution. If the Opposition moves such a resolution (Can only be introduced in the Rajya Sabha), it will be the first such occasion in Indian parliamentary history.

- ✓ Article 67(b) provides for the removal of the Vice-President from his office by a resolution of Rajya Sabha passed by an effective majority (the majority of more than 50% of the effective strength of the House.) and agreed to by the Lok Sabha with a simple majority (more than 50% of members present and voting) provided that at least fourteen days' notice has been given of the intention to move the resolution.
- √The Vice President can be removed from office for "violation of the Constitution" through a specific procedure. However, The Constitution does not explicitly define what constitutes a "violation of the Constitution." This leaves some ambiguity in the grounds for removal.

About the Vice President's Office



- The Vice President's office is modeled on the lines of the U.S. Vice President, but with unique roles suited to the Indian parliamentary system.
- Office of the Vice President (VP) of India is the second-highest constitutional office in the country, following the President of India established under Article 63 of the Constitution.
- Role- VP plays a crucial role in the legislative & executive branches of Indian government like:
 - He is the ex-officio Chairman of the Rajya Sabha (Article 64).
 - <u>Casting Vote:</u> While presiding over the Rajya Sabha, the Vice President does not vote in the first instance but has a casting vote in the case of a tie.
 - <u>Acting President:</u> In the event of a vacancy in the office of the President due to absence, illness, or any other reason, the VP serves as the Acting President until a new President is elected or the President resumes office (Article 65).
 - <u>Succession:</u> He is next in line to succeed the President in case of his death, resignation, or removal (Article 65).
- Election (Article 66)- He is elected by an electoral college consisting of members of both houses of Parliament (Lok Sabha and Rajya Sabha) through a system of proportional representation by means of a single transferable vote.
- <u>Tenure (Article 67)-</u> The Vice President serves a five-year term but can be re-elected for subsequent terms.
- Removal (Article 67b): The process involves both Houses of Parliament and requires significant support, making the removal of the Vice President a serious and rare procedure.

Reasons for Passing the Resolution Against The VP

 Lack of Space & Time to Express Views: The Opposition argues that parliamentary convention dictates that Leader of Opposition (LoP) is conceded the floor, if he gets up to speak. But microphone of Congress President & LoP in Rajya Sabha Mallikarjun Kharge is routinely turned off by the VP.

- 2. **Political Biasness:** The Vice President is expected to act in a non-partisan manner, especially in their role as the Chairman of the Rajya Sabha. If the Vice President is seen as acting with clear political bias or favoritism, undermining the neutrality of the office, this could be a ground for removal.
- 3. **Rules and Convention**: it should be followed to run the House & the floor of the House is "supreme" to any other area in Parliament. Whenever there is a complaint, the opposition have to visit the Chairman in his chamber. The problems generated on floor of the House should be sorted out there.
- 4. **Personal Remarks Against Members:** The opposition alleged the VP of making personal remarks against members which he must refrain from doing as per the Rule 238(2) of the Rajya Sabha which prohibits making a personal charge against a member.

Amrit Bharat Station Scheme (ABSS)

Western Railway announced the inclusion of Kandivali and Dahisar railway stations in the recently launched Amrit Bharat Station Scheme (ABSS).

About The Amrit Bharat Station Scheme (ABSS)

Launched in 2023 by the Ministry of Railway, ABSS aims to develop new stations and redevelop existing stations with a long-term vision by creating master plans and phased implementation to improve station facilities considering the unique needs of each station.

✓ For instance, the Jaipur Railway Station will feature elements resembling the Hawa Mahal and Ajmer Fort from Rajasthan.

Key Features

- Elegant Station Building with Aesthetic Platforms: which will redefine the Station's architectural landscape, reflecting a modern and inviting design.
- Focus on Swachh Bharat: by introducing modular Sewage Treatment Plant (STP), ensuring efficient sewage treatment and a cleaner environment at each station.
- Passenger Amenities: Travelers will enjoy improved amenities, including better seating, drinking water facilities, and enhanced lighting and ventilation on platforms and within the station building.
- Enhanced Connectivity: A revamped foot over bridge (FOB), supplemented by additional lift and escalator facilities, will ease passenger movement and accessibility.
- **Guidance and Information:** Modernized train indication boards and passenger-friendly signages will facilitate seamless navigation within the station premises.
- **Functional Upgrades:** The existing booking office and other administrative buildings will undergo thorough renovation, aligning them with the scheme's overarching vision.
- Inclusivity: All improvements will be designed to be divyangjan (specially abled) friendly, ensuring equal access and convenience for all.
- Sustainability: by using energy-efficient lighting and appliances.
- Eco-friendliness: by deploying rainwater harvesting systems and green spaces, ballast less tracks which reduce noise and vibration and Roof plazas as per requirement to provide additional space for commercial activities and passenger amenities.

Lateral Entry In UPSC

The Centre recently withdrew a notification by Union Public Service Commission (UPSC) which sought to recruit experts for multiple roles in certain Central Ministries through lateral entry, after the opposition blamed it for circumventing existing reservation policies.

About The Lateral Entry Scheme

What is Lateral Entry? Lateral entry allows the government to recruit domain experts or those with experience in policymaking and implementation from outside the usual bureaucratic setup directly to certain posts in government departments which may include mid or senior-level positions in services such as the Indian Administrative Service (IAS). For example, the Chief Economic Advisor of India is usually a prominent economist under the age of 45.

✓ Usually, these posts are filled by civil servants, who enter the services through examinations conducted by the UPSC.

Objective- To infuse specialized expertise and fresh perspectives into the bureaucracy, enhancing the overall effectiveness of governance.

Nature of Recruitment- The individuals are recruited on a deputation or contract basis, usually for a three-year period, with the possibility of an extension for up to five years.

Evolution of the Scheme-

- Concept of Lateral Entry: Although the concept of lateral entry has been in practice since the 1950s, as prominent figures like IG Patel, Manmohan Singh, V. Krishnamurthy, Montek Singh Ahluwalia, and R.V. Shahi were all brought into the government through this process but it was formally introduced for the first time under the Congress-led United Progressive Alliance (UPA) government.
- Suggestion by Second Administrative Reforms Commission (ARC),
 2005: under the Chairmanship of Veerappa Moily, it strongly endorsed by the concept of lateral entry.
- Committee of Secretaries (CoS) and NITI Aayog Recommendations (2017): of recruiting individuals through lateral entry to fill up government vacancies to strengthen the central government's expertise and introduce new perspectives by bringing in professionals from outside the traditional civil service framework.

Eligibility- Any candidate from private sector, state governments, autonomous bodies, or public sector undertakings with significant expertise and a proven track record in relevant fields falling in the upper age limit criteria specified by the government.

include Joint Secretary level positions, Director and Deputy Secretary.

- ✓ A Joint Secretary, appointed by the Appointments Committee of the Cabinet (ACC), has the third-highest rank (after Secretary and Additional Secretary) in a department, and functions as the administrative head of a wing in the Department.
- ✓ Directors are one rank below Joint Secretaries, and Deputy Secretaries are one rank below Directors and are considered middle-level officials in a department.

Current Status- So far, 63 appointments have been made through lateral entry, of which 35 were from the private sector and 57 such officers are in different positions in different ministries and departments.

Lateral Entry in Other Countries

- Lateral entry into administrative posts have been regularized in countries like the US, UK, Australia, New Zealand and Belgium.
- For instance, in the US, such posts also include legislative posts such as members of Congress as well as civil servants and members of the executive appointed by successive political administrations. But there is usually a "cooling off" period before the government official can engage in lobbying, with laws differing by State.
- The phenomenon of government officials transitioning to lobbyists and corporate entities and vice versa has often been christened as a "revolving door" model in governance across the world.
- It allows a flow between government posts and decisionmaking roles in corporations or industries.
- But recently, the revolving-door system has come under fire for undermining public trust, conflicts of interest and influence particularly in industries such as Big Pharma, the energy and fossil fuel sector and defence in several countries, including the United Kingdom, France, Italy, Spain, Portugal, Sweden and Norway.
- As public actors involved may "regulate in favour of the corporations either to secure a post-government position in the private sector or when moving from private to public office.

Why Is The Lateral Entry Scheme Being Opposed?

The scheme has been criticized since its inception in India as the candidates hired are not subject to reservation requirements. The latest advertisement invited the ire of the Opposition who blamed the ruling party of deliberately making such recruitments in jobs to exclude SC, ST, OBC categories from the reservation.

Why are There No Reservations in Lateral Entry Scheme? The Department of Personnel and Training (DoPT) exempts government appointments from the reservation policy if they are temporary roles for less than 45 days and lateral entry is just a private contract between the individual and the government therefore the usual policy ascribed to government services does not apply here and reservations are not provided.

How Is Reservation Provided In Government Vacancies?

- Reservation in public jobs and universities is implemented via what is known as the "13-point roster" which allows determining a candidate's position on the roster of openings by dividing the quota percentage of their group (SC, ST, OBC, and now EWS) by a hundred.
 - For example, OBC candidates with 27% reservation are recruited to every 4th post for which a vacancy arises in a department/cadre (100/27=3.7). Likewise, SC candidates, with 15% reservation fill every 7th vacancy (100/15=6.66), ST candidates, with 7.5% reservation fill every 14th vacancy (100/7.5=13.33) and EWS candidates, with 10% reservation fill every 10th vacancy (100/10=10).
- There is no reservation for up to three vacancies.

How Have Lateral Entries Been Kept Out Of The Ambit Of Reservation?

- In a single post cadre, reservation does not apply and since each post to be filled under the lateral entry scheme is a Single Post, reservation is not applicable.
- For instance, in the latest advertisement, UPSC advertised 45 openings, all single post vacancies for different departments. Therefore, the 13-point roster doesn't apply to these vacancies and allows it to bypass the policy of reservations.

Arguments Related to Lateral Entry Scheme

In Favour

- Enables Government to Bring in Experts- in fields such as technology, management, and finance for addressing the increasing complexity of governance.

 Lack of Long-Term Commitment Fails to Make Meaningful Impact on the system as the three-year tenure recruits through
- Reforms Administrative Process- Lateral entrants with their diverse backgrounds and fresh perspectives can drive innovation, reform administrative processes, and enhance the functioning of government bodies by overcoming red-tapism, rigid rule-following, and resistance to change.
- Addresses Shortage of Staff- As per DoPT only 442 Indian Administrative Service (IAS) officers are working with the Centre, against the required strength of 1,469 officers. Lateral entry ensures that key positions are occupied by individuals capable of addressing the challenges faced by the administration.
- Inclusivity- It provides a platform for stakeholders from the private sector and non-profit organizations to engage directly in the governance process and help makes the governance more inclusive by fostering collaboration across different sectors.

Against

- Lack of Long-Term Commitment Fails to Make Meaningful Impact - on the system as the three-year tenure recruits through lateral entry is insufficient for newcomers to fully grasp the complexities of the governance system.
- Concerns Regarding Neutrality in Decision
 Making- by individuals from diverse
 backgrounds as there can be risks of
 conflict of interest and biases, particularly
 if lateral entrants have prior connections
 with private companies or interest groups.
- Tensions in Bureaucracy- Bureaucrats who have worked hard to get to their positions might view lateral entrants as outsiders resulting in challenges related to hierarchy and acceptance, affecting collaboration and productivity.
- Undermines Merit Based Recruitment
 System- if not implemented transparently

Meritocracy and Competitive Environment: Lateral entrants
can promote a more competitive environment within the civil
service. It can motivate existing civil servants to upgrade their
skills and perform better, knowing that the system is open to
external talent.

as the selection process could be swayed by favoritism or nepotism, potentially eroding trust in the system.

Conclusion

Lateral entry for specialist positions should prioritize efficiency over equity as an efficient bureaucracy is ultimately more effective in delivering social justice than reserving specialized jobs for categories. Therefore, the focus should remain on bringing in the best talent to serve the public interest effectively.

Governance In Delhi

The Supreme Court (SC) recently held that the authority of the Lieutenant Governor (L-G) of Delhi to nominate aldermen (10 persons with special knowledge of municipal administration) to the Municipal Corporation of Delhi (MCD) is a statutory duty attached to his office and he is not bound by the aid and advice of the Council of Ministers (CoM) for this purpose.

About Aldermen (Senior Members Of Local Councils)

Meaning- Aldermen are elected officials in certain cities, towns, or boroughs, typically serving on a local governing body such as a city council. The term "alderman" is more commonly used in the United States and Canada.

- ** Aldermen in India are not directly elected by the public but are nominated by elected members of the municipal corporation or the state government.
- ** In some countries, including the UK and India, the **title of Honorary Alderman** can be conferred upon former elected members of a municipal corporation who have served for a long period of time or have made notable contributions to local governance. This title is ceremonial and does not come with the legislative powers that regular aldermen might hold.

Responsibilities-

- Their role is to assist in the governance of the city by providing specialized knowledge or experience, especially in areas like urban planning, public health, or infrastructure.
- Participate in making decisions on local issues and voting on ordinances, resolutions, and budgets.
- Monitoring the activities of the executive branch and ensuring that laws are being enforced.

Background

- The Issue- In 2023, the LG of Delhi nominated 10 aldermen to the MCD but the Delhi government objected to
 these nominations alleging that the nominated alderman need to have "special knowledge or experience in
 municipal administration" but the LG appointed them as they had political links to the BJP and accused the LG
 of giving them voting rights in the mayoral polls, which is prohibited according to the Delhi Municipal
 Corporation Act, 1957.
- Petition in SC- The Aam Aadmi Party (AAP) filed a petition in the SC under Article 32 (right to move to SC for
 enforcement of fundamental rights). The legal question before the court was whether the LG could nominate
 10 persons (to the MCD) as a part of the statutory duty of his office or was he bound by the aid and advice of
 the CoM.

• The Verdict:

The court held that the executive power of the Delhi government would conform to a parliamentary law
dealing with subjects in the State and Concurrent Lists of the Seventh Schedule of the Constitution and the
power of the LG (to nominate 10 persons with special knowledge of municipal administration to the MCD) is

drawn from the Delhi Municipal Corporation (DMC) Act, 1957 which grants him the statutory power to make such appointments independently.

- ✓ The DMC Act was amended in 1993 to vest the power in LG to nominate 10 expert persons to incorporate constitutional changes in Articles 239AA and 239AB of the Constitution in Part 9A concerning municipal administration.
- The bench clarified that LG is not required to act on the advice of the Delhi government in this matter, as the authority comes from a law passed by Parliament.

About the Governance in Delhi

Evolution

- **Delhi as a Union Territory** At the time of the commencement of the Constitution in 1950, Delhi was a Part C State and was made a UT in 1956 during the reorganization of states.
- MCD- was established in 1958 followed by a limited local government in 1966.
- Legislative Assembly of Delhi- was established through the 69th Constitutional amendment act which inserted Article 239 AA in the Indian Constitution based on the recommendations of S Balakrishnan Committee.

Article 239AA of the Indian Constitution provides a special status to the National Capital Territory (NCT) of Delhi and created a unique framework for governance in Delhi including-

- Legislative Assembly: for Delhi, with elected representatives who have the power to make laws on matters listed in the State and Concurrent Lists.
- Council of Ministers: headed by a Chief Minister, who advises the Lieutenant Governor (LG) on most matters.
- Role of the Lieutenant Governor:
 - o The LG is bound by the aid and advice of the Council of Ministers except in matters where he is required to act independently by law.
 - He retains the power to refer matters to the President of India if there is a disagreement with the advice of the ministers and act accordingly.
 - When such a decision is pending with the President, the LG can take prompt action in any scenario where the matter (in his/her opinion) is urgent.
 - Under Article 239AB, the President may (on receipt of a report from the LG or otherwise) suspend the
 operation of any provision of Article 239AA by order if there arises a situation in which the administration
 of the NCT cannot be carried out in accordance with the provisions of Article 239AA.
- Powers and Limitations: Certain matters like land, police, and public order remain under the control of the central government through the LG under Article 239AA(3)(a).

Implications of Frequent Conflicts b/w LG and Elected Government

- Governance Challenges: Stuck Public Service Delivery: It can lead to administrative paralysis as decisions may
 be delayed or obstructed, affecting the delivery of public services, infrastructure development, and policy
 implementation. For instance, disputes over who controls the bureaucracy or the appointment of officials can
 create uncertainty and inefficiency within the government.
- **Political Tension**: It can polarize public opinion, lead to protests, legal battles, and a charged political environment and can also become a point of contention between governments at Centre and Delhi.
 - ✓ The Aam Aadmi Party (AAP) government in Delhi has repeatedly accused the LG of blocking or delaying welfare schemes such as free health clinics (Mohalla Clinics) and improvements to the education system.
- Highlights Complexities of Federalism: and raises questions about the balance of power and democratic
 governance in Delhi as the elected government seeks greater autonomy whereas the LG as an appointee of the
 central government is often seen as undermining the mandate of the people.

- ✓ The 2018 Supreme Court judgment clarified that while the LG has special powers, he cannot act independently of the aid and advice of the elected government on most matters, barring police, public order, and land. Despite this, conflicts over jurisdiction continue, reflecting ongoing tensions in the governance framework.
- **Legal Issues**: The repeated tussle between the LG and the Delhi government often reach the SC which through a have led to a series Supreme Court rulings that seek to clarify the constitutional framework governing Delhi setting precedents for other UTs and the interpretation of the Constitution regarding the division of powers between the center and states.

The Union versus Delhi

Since 2015, the Union government led by the BJP and the Delhi government led by AAP have been at loggerheads on various issues

Case / Amendment	Brief description	Implication
Govt of NCT of Delhi vs Union of India (UOI) (2016)	The Delhi High Court ruled that the LG of Delhi exercised complete control of all matters relating to the NCT of Delhi	It made the appointed LG the executive head, reducing the powers of the elected government of Delhi
Govt of NCT of Delhi vs UOI (2018)	On appeal against the Delhi HC judgment, the Supreme Court held that the LG was bound by the 'aid and advice' of the council of ministers headed by the Chief Minister of Delhi except on matters relating to public order, police and land	This restored the powers of the elected government of the NCT of Delhi in matters of day-to-day administration
Government of NCT of Delhi (Amendment) Act, 2021	It required the council of ministers to obtain the opinion of the LG before any executive action on matters specified by the LG	This amendment tilted the balance of power again in favour of the LG
Govt of NCT of Delhi vs UOI (2023)	A Constitution Bench of the Supreme Court in May 2023 had held that the Delhi assembly and government shall have legislative and executive powers over 'services' except in relation to public order, police and land	This restored the powers of the elected government of the NCT of Delhi in matters of day-to-day administration including postings and transfers
Government of NCT of Delhi (Amendment) Act, 2023	It created the National Capital Civil Service Authority for deciding on matters relating to 'services'. This authority will consist of the Chief Minister, the Chief Secretary and the Home Secretary of Delhi	This had the effect of again reducing the importance of the elected government and Chief Minister in decisions relating to 'services'

- Inefficient Bureaucratic Functioning: Disputes between the LG and the elected government create confusion within the bureaucracy over whose orders to follow. This uncertainty reduces the efficiency of government functioning, as officials may hesitate to take decisions for fear of backlash or contradictory instructions.
 - ✓ In 2018, the LG's intervention in matters related to the appointment and transfer of Delhi government officers created confusion and stalled the functioning of various departments, affecting decision-making processes

Way Forward

- The existing laws, particularly Article 239AA, can be amended to clearly delineate the powers of the LG and the Delhi government and prevent conflicts over jurisdiction.
- Granting the Delhi government more autonomy like transferring certain powers like control over services and appointments could help resolve some of the tensions.
- A formal mechanism or committee can be established to mediate disputes between the LG and the Delhi government and provide a structured way to address conflicts.
- Regular judicial review of decisions made by the LG and the Delhi government could ensure that both parties adhere to the law while also setting clear precedents for future cases.
- Encouraging dialogue and cooperation between the LG, the Chief Minister, and other stakeholders could foster better communication and understanding, leading to more collaborative governance.
- Involving the public in the decision-making process could pressure both LG and the government to work together more effectively for the common good.

Jiyo Parsi Scheme Portal

The Ministry of Minority Affairs recently launched the Jiyo Parsi Portal which would enable Parsis to apply online, check the status of their application and to receive financial assistance online through Direct Benefit Transfer.

About the Jiyo Parsi Scheme

It is a unique Central Sector Scheme (CSS) launched in 2013-14 for arresting the population decline of Parsi Community.

Objective- To reverse the declining trend of Parsi Population by adopting scientific protocol and structured interventions to stabilize their population in India.

Components-

- 1. **Medical Component-** Financial assistance is provided to Parsi Couples for medical treatment under standard medial protocol;
- 2. **Health of Community Component** Financial assistance is provided to Parsi Couples for childcare and assistance of elderly people.
- 3. **Advocacy Component-** Advocacy/outreach programmes are conducted to generate awareness among the Parsi Population.

Assistance Mode- Assistance is released to the beneficiaries through Direct Benefit Transfer (DBT) mode after biometric authentication and other verifications by the respective State Governments.

Achievements- Since inception, the scheme has enabled birth of more than 400 Parsi children so far.

Bhartiya Vayuyan Vidheyak, 2024

The Lok Sabha recently passed the Bhartiya Vayuyan Vidheyak, 2024 which seeks to replace the 90-year-old Aircraft Act.

About the Bhartiya Vayuyan Vidheyak, 2024

It seeks to replace the Aircraft Act 1934 and provide for regulation and control of the design, manufacture, maintenance, possession, use, operation, sale, export and import of aircraft and for related matters.

- ** The Bill retains the regulatory structure and most of the provisions under the 1934 Act.
- ✓ The Aircraft Act, 1934 currently regulates the civil aviation sector provides for three statutory authorities:
 - o Directorate General of Civil Aviation (DGCA) for performing regulatory functions and overseeing safety;
 - o Bureau of Civil Aviation Security (BCAS) for overseeing security; and
 - o Aircraft Accidents Investigation Bureau for investigation of aircraft accidents.

Objective-

- To remove ambiguities, redundancies, simplify processes and improve ease of doing business;
- To provide for design, manufacture, and maintenance of aircraft and related equipment.
- To regulate issuance of Radio Telephone Operator (Restricted) Certificate and license to provide for ease of business;
- To make rules to implement the Convention relating to international civil aviation (ICAO) and the other matters relating to civil aviation security;
- To issue orders in emergency in the interest of public safety or tranquility;
- Provide for payment of compensation for loss or damage;
- Provide for appeal against the matters relating to compensation, license, certificate or approval and adjudication of penalties;

• Provide for imprisonment, fine or penalties for violating the act;

Key Amendments (Support for 'Make in India')

1. **Definition of Aircraft**- has been changed and now includes drones and air taxis. Balloons and gliders have been removed.

2. Power with Central Government -

- o To regulate the design, manufacture, maintenance, possession, use, operation, sale, export, or import of any aircraft or class of aircraft and for securing the safety of aircraft operations.
- o To make rules on radio telephone operator certificates and licenses under the International Telecommunication Convention (ITC).
 - ✓ ITC is an international treaty concluded in 1992 in Geneva, succeeding and replacing the 1865 International Telegraph Convention. It is the founding document of the International Telecommunication Union (ITU) - a specialized agency of the United Nations responsible for matters related to ITC.
- o To suspend, cancel, or restrict any license or certification granted under the Act. However, an opportunity for hearing must be given to the affected party prior to passing such an order.
- 3. More Powers to DGCA and BCAS- for the safety of the aviation environment in the country. Appeals against an order of DGCA or BCAS will lie before the central government. No further appeals will be allowed against the central government's orders.
 - ✓ The proposed legislation will bring the Radio Telephone Operator Restricted (RTR) Certificate and License testing process from the Department of Telecom (DoT) to the Directorate General of Civil Aviation (DGCA). This will ease the process for pilots as they can secure all their certificates from one single authority, which is the DGCA.
- 4. **Second Appeal** The bill adds an additional level of appeal as an appeal against the decision of the First Appellate Officer can now be made before the Second Appellate Officer.
 - ✓ The act empowers the central government to appoint an officer of the rank of the Deputy Secretary to Government of India or above for adjudication of penalties. Decisions of the Adjudicating Officer may be appealed before an Appellate Officer, who must be of a higher rank than the Adjudicating Officer.
 - ✓ The Second Appellate Officer must be an officer of a higher rank than the First Appellate Officer.
- 5. Air Navigation Services: will be regulated to include oversight of aeronautical information, charting, meteorological services, and search and rescue operations, all of which are crucial for ensuring safe and efficient air travel.
- 6. **Regulations for MRO Services**: i.e. Maintenance, Repair, and Overhaul services will be developed ensuring a robust infrastructure for the upkeep and maintenance of aircraft.
- 7. **Safety and Security**: Enhanced measures are introduced to safeguard against unlawful interference in the aviation sector.
- 8. **Economic Regulation**: of civil aviation and air transport services by central government such as approving, disapproving, or revising the tariffs of air transport service operators, ensuring a fair and competitive economic environment within the industry.
- 9. Fare Regulation: Fares will be regulated by central government to ensure fair pricing for air transport services and prevent unauthorized air transport operations.
- 10. **International Compliance**: To implement the provisions of international conventions, enforce standards and recommended practices, and ensure safety and security oversight as per the recent audit recommendations of the International Civil Aviation Organization (ICAO).

Significance

- Enhanced Regulatory Oversight: by stronger regulatory bodies (DGCA, BCAS, AAIB) with expanded powers for better safety and compliance in the aviation sector.
- Increased Government Authority: with more power to the central government for effective regulation, safety enforcement, and emergency response in aviation.
- Inclusive Aviation Definition: to include emerging technologies like drones to ensure they are regulated under a unified legal framework.
- **Supports Domestic Manufacturing**: with MRO infrastructure and reduces reliance on foreign suppliers.
- Improved Air Navigation Services: Regulation of air navigation services will result in safe and efficient air traffic management and will protect against unlawful interference.
- Economic and Fare Regulation: will ensure fair pricing and competitive practices in the air transport market, protecting consumers and maintaining airline viability.
- International Compliance: will enhance India's standing in the international aviation community.

Concerns Raised

- Several Issues Unaddressed- such as near collisions, flight delays, and cancellations.
- Ignores Climate Change Impact:
 Opposition criticized the government for not addressing the aviation industry's contribution to climate change, noting that it accounts for 3% of global emissions.
- Allegations of Favoritism Towards
 Industrialists: over common people.
- High Airfares Impacting Low-Earning Workers: from Kerala going to Gulf countries.
- Change in Certification Process: by transferring the issuance of the Radio Telephone Operator Certificate from the Department of Telecommunications to the Central Government.

Way Forward

- **Investing in Airport Infrastructure**: Focus should be on developing and upgrading airports, especially in Tier-2 and Tier-3 cities, to enhance capacity and connectivity.
- **Promoting Sustainability**: by implementing stricter environmental regulations, adopting sustainable aviation fuels (SAFs), and using fuel-efficient aircraft to reduce the sector's carbon footprint.
- **Embracing Digital Transformation**: by leveraging AI, big data analytics, and blockchain to improve passenger experience, streamline operations, and enhance security.
- **Developing Skilled Workforce**: by investing in the training of aviation professionals, with a focus on specialized institutes and global partnerships to meet the sector's demand for skilled workers.
- Encouraging Public-Private Partnerships (PPPs): for airport development and Maintenance, Repair, and Overhaul (MRO) facilities to bring in expertise and investment.
- Expanding Regional Connectivity Scheme (RCS): to improve connectivity in underserved regions through continued government support.
- **Promoting Gender Inclusion**: to increase the participation of women in the aviation sector, building on the current progress where women make up 14% of the workforce, the highest globally.

Broadcasting Services (Regulation) Bill, 2024

The Ministry of Information and Broadcasting withdrew the draft Broadcasting Services (Regulation) Bill, 2024, which had raised several questions on the freedom of speech and expression, and the government's powers to regulate it.

About Broadcasting Services (Regulation) Bill, 2024

It aimed to consolidate and modernize the regulatory framework for various broadcasting services in India and extend it to over-the-top (OTT) content and digital news.

Objectives- To extend the regulations and consolidate existing guidelines currently applied to traditional television and radio to the internet and increase accountability among broadcasters.

Controversial Provisions of the Draft Bill

- Definition of Digital News Broadcasters: will include publishers of news and current affairs content i.e. any
 person who broadcasts such programmes through an online paper, news portal, website, social media
 intermediary (SMIs), etc., as part of a systematic business, professional or commercial activity. This will include
 commentators on YouTube, Twitter, blogging portals or podcasts discussing current affairs and socio-political
 issues.
 - ✓ In Singapore, both traditional broadcasters, and over the top (OTT) content providers fall under the country's broadcasting law. Under the country's copyright law, OTT platforms are regulated and they require a licence from a regulator, although licensees do not have the same level of obligations as other television services.
 - ✓ In the United States, the Federal Communications Commission (FCC) and its Media Bureau regulate broadcast radio and television stations. Currently, OTT platforms are not directly regulated by United States federal laws or government authorities.
- 2. Three-Tier Regulatory Structure: Broadcasters with a certain threshold of subscribers/viewers will have to set up CECs to evaluate content and certify its compliance with the code Creators will have to constitute Content Evaluation Committees (CECs), register with a Self-Regulatory Organization and adhere to orders by the Centre appointed Broadcast Advisory Council. The news creators who do not intimate the Central government names, credentials and other details of members of their CEC will be fined Rs 50 lakh in the first contravention, and Rs 2.5 crore for subsequent violations in the next three years.
- 3. **Penalties for the Digital News Broadcasters:** The Bill empowers the users to raise complaints against Programme Code violations, and gives the central government the power to
 - o Impose penalties; Direct broadcasters to go off-air, and
 - Even prohibit transmission in the interest of sovereignty, security, public order, decency, morality, or foreign relations.
 - The Bill also has criminal liability provisions for social media companies if they do not provide information "pertaining to OTT Broadcasters and Digital News Broadcasters" on its platforms for compliance.
- 4. **Extra-territorial application:** It brings global content creators, news publishers, and commentators of current affairs within the scope of the Bill.
- 5. **Threatening Safe Harbour:** The Bill imposes new obligations on social media intermediaries, including compliance with government demands for information about broadcasters on their platform

Need for Regulating Independent Content Creators

- 1. Political Manipulation and Influence: Role of independent content creators in 2024 Lok Sabha Elections-Several creators made videos on current affairs making some sensational claims about the government and its senior leaders in the run up to the elections. For example, Youtuber Dhruv Rathee published several videos against the Prime Minister.
- 2. **Misinformation & Fake News**: Independent news creators, particularly those operating online, have the potential to spread unverified or misleading information quickly, which can have serious consequences for public order & national security. (e.g., misinformation during the COVID-19 pandemic about treatments, vaccines, and the virus itself)

- 3. Accountability and Transparency: Independent news creators often operate without the oversight and editorial standards that apply to traditional media organizations resulting in biased reporting or the dissemination of content that serves specific interests rather than the public good.
- 4. **Promoting Harmful Trends and Challenges:** Regulations can set limits on content that glorifies dangerous behavior. Platforms could be required to flag or remove such content more swiftly and impose penalties on creators who promote harmful activities.
- 5. **National Security and Social Harmony**: Independent news creators, particularly those with large followings, can influence public opinion and potentially incite violence or unrest.
- 6. **Leveling the Playing Field**: Regulation is necessary to level the playing field and ensure fair competition between traditional media and independent creators.
- 7. **Cultural Sensitivities and Offensive Stereotypes:** Guidelines should be established to ensure creators respect cultural norms and avoid perpetuating harmful stereotypes. Regulatory frameworks can ensure that creators are sensitive to the diversity of their global audiences.

Issues With The Bill

- Ignored Fundamental Differences Between TV And the Internet: Unlike TV where linear programming is
 disseminated one to many, content on the internet is demand-based and one-to-one. Applying the same
 regulations as TV may significantly increase costs (while reducing speed to market) for smaller-scale content
 creators and independent journalists.
- Affects Freedom of Speech: Serious censorship government and penalties for non-complaince can create a chilling effect on free speech. This includes defining a digital news broadcaster in sweeping terms; requiring prior registration with the government to prescribing standards for content evaluation; etc.
- **Implementation Challenges:** The extra-territorial application of the provisions is difficult to implement given the global, decentralized nature of the web.
- Regulatory Difficulties by Introducing Parallel Legislation: as the IT Act 2000 and the accompanying IT Rules already require social media intermediaries to establish grievance redressal mechanisms; comply with government orders and operate a notice-and-takedown regime for flagged content.
- The draft Bill allows the government to "exempt a distinct class of players or a group for avoiding genuine hardship", which suggests that some stakeholders might be exempted from the purview of the Bill.

Why Was The Bill Withdrawn?

- Increased Censorship: Pre-censorship, particularly on digital platforms, was seen as a tool for government overreach, potentially stifling independent journalism and creative freedom.
- Industry Backlash: The media industry, including both traditional broadcasters and digital content creators argued that the proposed regulations were too restrictive and could harm the growth and innovation in the sector.
- Inclusion of Over-the-Top (OTT) platforms: under the same regulatory framework as traditional broadcasters was particularly contentious, with critics saying it would impose outdated standards on a rapidly evolving digital medium.
- Lack of Consultation: with various industry bodies, content creators, and experts before introducing the bill led to a lack of consensus on key provisions of the Bill and contributed to its withdrawal.
- Impact on Smaller and Independent Media Outlets: The stringent regulations and compliance costs could have disproportionately affected smaller players, leading to a more monopolized media landscape dominated by large corporations.
- Public and Political Pressure: led the government to withdraw it for further deliberation and possible revision.

SC-appointed Task Force for Doctors' Safety

In response to the rape and murder of a postgraduate trainee doctor in Kolkata, the Supreme Court (SC) established a 10-member National Task Force (NTF) to enhance the safety of healthcare professionals across the country.

✓ NTF needs to submit an interim report within three weeks and a final report within two months of the order.

Objective- to formulate a protocol for the safety and security of healthcare professionals.

Composition- The task force is composed of eminent figures from various medical institutions along with cabinet secretary, home secretary, health secretary, National Medical Commission Chairperson and the National Board of Examinations President as the ex-officio members.

Function- It is tasked with creating a national protocol to ensure dignified and safe working conditions for medical professionals including developing action plans to prevent violence, including gender-based violence, within medical facilities.

Vigyan Dhara Scheme

The Union Cabinet, chaired by the Prime Minister Shri Narendra Modi recently approved the continuation of the three umbrella schemes, merged into a unified central sector scheme namely 'Vigyan Dhara' of Department of Science and Technology (DST).

About the Vigyan Dhara Scheme

- It is a new central sector scheme unifying three umbrella schemes of the Department of Science and Technology (DST) namely-
- i. Science and Technology (S&T) Institutional and Human Capacity Building,
- ii. Research and Development and
- iii. Innovation, Technology Development and Deployment

to enhance efficiency in fund utilization and establish synchronization among these schemes.

• Its proposed outlay is of Rs.10,579.84 crore during the 15th Finance Commission (FC) period from 2021-22 to 2025-26.

Objective- To promote S&T capacity building as well as research, innovation and technology development towards strengthening the Science, Technology and Innovation ecosystem in the country.

Features-

- **Research Focus**: Promotes research in basic science, sustainable energy, water, and international collaborative research.
- **Human Resource Development**: Aims to build a critical pool of researchers to strengthen India's science and technology landscape, increasing the Full-Time Equivalent (FTE) researcher count.
- **Gender Parity**: Includes focused interventions to enhance women's participation in Science, Technology, and Innovation (STI), with the goal of achieving gender parity.
- Innovation Promotion: Encourages innovation from school to industry levels, supporting startups through targeted interventions.
- Collaboration: Seeks to increase collaboration between academia, government, and industry.
- Alignment with National Goals: Aligns with DST's 5-year goals towards realizing the vision of Viksit Bharat 2047 and with the Anusandhan National Research Foundation (ANRF) while adhering to global standards.

Governor Sanctions Against CMs

Recently, the Karnataka Governor sanctioned the prosecution of Karnataka Chief Minister (CM) in the Mysore Urban Development Authority (MUDA) Scam for alleged irregularities in the allotment of land under MUDA.

Powers of Sanctioning the Prosecution of the CM

- **Constitutional Role:** The Governor of a state has discretionary powers to sanction the prosecution of the Chief Minister under certain circumstances, especially when the offense pertains to corruption or misconduct.
 - ✓ Case Example: In B.S. Yeddyurappa v. State of Karnataka (2012), the Karnataka Governor sanctioned the prosecution of the then-Chief Minister Yeddyurappa under allegations of corruption without consulting the state cabinet, showcasing the Governor's independent powers in such cases.
- Role of the President of India: If a case involves matters that are within the jurisdiction of the central government or relate to national interests, the President of India may be consulted or may directly act on the advice of the Council of Ministers regarding sanctioning prosecution. This applies primarily in exceptional cases of national concern.

- Scam pertains to allegations of irregularities in the allotment of compensatory sites
- ➤ At the heart of the scam is 3.2 acres of land gifted to CM's wife, Parvathi, by her brother Mallikariunaswamy in 2010
- ➤ After Muda acquired the land, Parvathi sought compensation and was allocated 14 plots significantly more valuable than the original land
- ➤ Opposition claims that total value of the scam could range from ₹3,000 crore to ₹4,000 crore

Legal Provisions

- Prevent of Corruption Act (PCA), 1988, allows the Governor to sanction an investigation into the CM. But
 according to Section 19 of the Act, a separate sanction is required for prosecution if an investigation leads to
 a chargesheet.
- Section 218 of the Bharatiya Nagarik Suraksha Sanhita (BNSS), 2023 authorizes courts to directly take cognizance of the alleged offences without ordering an investigation but first the Governor has to grant sanction under Section 19 of PCA.
- Central Government's Role in Certain Cases: In cases involving offenses related to central laws or where central
 agencies such as the Central Bureau of Investigation (CBI) are involved, the central government may play a role
 in sanctioning prosecution. If the CBI seeks to prosecute a Chief Minister for corruption, the agency will typically
 require the approval of the central government, and potentially the Governor, depending on the jurisdiction of
 the case.
- The SC ruling on Governor's Discretion: In Madhya Pradesh Special Police vs State of Madhya Pradesh case which involved two state ministers accused of land irregularities, based on a complaint made to the Lokayukta, a five-judge Constitution Bench of the Supreme Court (SC) upheld the Governor's move to grant sanction, even though if it is against the state government's view, saying that a refusal to grant sanction could put "democracy itself at stake" and lead to those in power "(breaking) the law with impunity".
 - ✓ While the Council of Ministers at the time held that there was not enough evidence in the Lokayukta's report, the Governor disagreed and granted prosecution sanction.
 - ✓ **Judicial Intervention:** Courts play a significant role in determining whether the Governor or any other sanctioning authority is acting appropriately when granting or denying permission to prosecute the Chief Minister. Judicial review can be sought if there is a belief that the sanction is being misused for political reasons.

Past Sanctions Against CMs

- 1. **Tamil Nadu CM Jayalalithaa (1995)**: She faced prosecution sanctioned by Governor Marri Channa Reddy on corruption charges. She challenged the decision, but the Madras High Court upheld it. The issue was taken to the SC but later withdrawn after her acquittal.
- 2. **Bihar CM Lalu Prasad (1997)**: He was sanctioned for prosecution by Governor A R Kidwai in the fodder scam. This forced Lalu to resign as CM.

- 3. Maharashtra CM Ashok Chavan (2010): He was implicated in the Adarsh Society scam which involved politicians cornering flats built for war widows. The scandal forced Chavan to resign as CM, and implicated other ministers and bureaucrats. Several requests for prosecution sanctions were denied by the then Governors but in 2016, Governor C V Rao granted sanction to the CBI, but it was struck down by the Bombay HC as the CBI had failed to provide any fresh evidence when it had sought the sanction.
- 4. **Recent Trends**: Increasing instances of Governors sanctioning prosecution against ministers and MLAs indicating ongoing tensions between state governments and Governors. For instance, in Tamil Nadu, the ruling DMK and Governor R N Ravi have faced off over pending sanction demands against former AIADMK ministers in 2023 and in West Bengal, where former Governor Jagdeep Dhankhar granted sanctions against three ministers of the ruling Trinamool Congress in the Narada sting case in 2021.

Implications of Governor Sanctions Against CMs

- 1. **Political Instability-** It can result in the collapse of the government, especially if the ruling party is unable to find a suitable replacement, disrupting the state's governance & requiring early elections.
- 2. **Political Tensions & Impact on Federalism** can be heightened between state governments and the central government, especially when perceived as politically motivated.
- 3. **Policy Stalemate-** The government may be unable to effectively implement new initiatives or address pressing issues.
- 4. **Loss of Public Trust-** The perception of political infighting and instability can erode public trust in the government and its ability to deliver effective governance.
- 5. **Legal Challenges-** The sanctions can be challenged in court, leading to lengthy legal proceedings and further political uncertainty.
- 6. **Constitutional Crisis** If the governor's actions are deemed unconstitutional, it could raise questions about the balance of power between the state and central governments whereas if the governor's actions are upheld, it could erode the autonomy of state governments and weaken the federal structure of India.
- 7. **Electoral Ramifications:** Prosecution sanctions against a CM can have serious electoral consequences. If the CM belongs to a party contesting upcoming elections, it could damage the party's chances due to the negative public perception of corruption or criminal misconduct.

Article 311

The Jammu and Kashmir Lieutenant-Governor recently invoked Article 311 of the Constitution and terminated the services of six government employees.

What is Article 311?

It establishes the procedures and safeguards that must be followed before a government employee can be dismissed, removed, or reduced in rank on following two grounds:

- 1. **Employee Efficiency**: If an employee's performance or conduct is unsatisfactory or detrimental to the efficient functioning of the government.
- 2. **Employee Conduct**: If the employee is involved in acts of corruption, bribery, fraud, or any other offense involving moral turpitude.

This serves as a protective measure against arbitrary government actions upholding the Principles of Natural Justice (PNJ). Article 311 does not apply to military personnel, as they are governed by separate disciplinary laws.

** The protection under Article 311 is extended against dismissal, removal, or reduction in rank. However, other forms of punishment, such as suspension or transfer, are not covered by Article 311.

Exceptions to Article 311

- Security of the State: If an employee's activities are prejudicial to the security of the state, the President or Governor can bypass the inquiry and take immediate action. (Example: In a case involving terrorism or espionage, where holding an inquiry could compromise state security or put lives at risk, an inquiry may be bypassed.)
- Efficiency in Public Service: The President or Governor can also dispense with the inquiry if it is in the interest of the security or efficiency of public service.
- **Probationary Employees**: Employees on probation who have not yet secured a permanent position can be dismissed or removed without an inquiry.
- Judicial Review- An aggrieved employee may seek remedies through the courts, which could include reinstatement, back wages, or other relief deemed appropriate by the court.
 - ✓ Union of India v. Tulsiram Patel (1985): The Supreme Court provided important interpretations of Article 311, particularly regarding the exceptions. It held that while safeguards are important, national security and public interest may sometimes justify bypassing the inquiry process.
- If a civil servant has been convicted by a court of law on criminal charges, the requirement for an inquiry can be dispensed with. The conviction itself is sufficient to justify dismissal, removal, or reduction in rank.

Procedural Safeguards Under Article 311

- Informing the Employee: Article 311 mandates that no government employee can be dismissed, removed, or reduced in rank without an inquiry and the employee must be informed of the charges against them and given a reasonable opportunity to defend themselves.
 - ✓ Internal Appeal Mechanisms: The employee can appeal to higher authorities within the department or government.
- Authority for Action: A civil servant can only be dismissed, removed, or reduced in rank by the authority that appointed them, or by someone with the same authority or rank as the appointing authority.

Procedure for Disciplinary Action

- 1. **Formulation of Charges-** The competent authority must frame valid and justifiable charges, stating the allegations and grounds for disciplinary action.
- 2. **Providing an Opportunity to be Heard-** must be given to the employee against the charges and present their defense.
- 3. **Impartial Inquiry** must be conducted by a competent authority, the employee should have a fair chance to present their case and cross-examine any witnesses or evidence against them.
- 4. **Inquiry Report-** should be prepared after the inquiry considering all the evidence and submissions made during the process.
- 5. **Final Decision-** by the competent authority should be based on the inquiry report and should be fair, reasonable, and in line with the principles of natural justice. The outcome must be communicated to the employee.

Related Supreme Court (SC) Judgements

- 1. Shamsher Singh v. State of Punjab (1974): The Court clarified that while the Governor (or President) can dismiss a civil servant, this must be done following the due process outlined in Article 311, ensuring a fair opportunity for defense.
- 2. *K.S Subramanian v. Union of India (1988):* The Court held that the doctrine of office held at the pleasure of the President does not apply to cases covered by Article 311 of the Constitution.
- 3. *Dr. V.R. Sanal Kumar versus Union of India & Ors (2023)*: The Court reiterated that inquiry proceedings of persons employed in civil capacities under the Union Government of the State Government can be done away

with if the President or the Governor is satisfied that in the interest of security of the State it is not expedient to hold such an inquiry under Article 311(2)(c).

Conclusion

The procedural safeguards under Article 311 are essential in protecting the rights of civil servants, ensuring that their dismissal, removal, or demotion is not arbitrary. These safeguards promote fairness by requiring a proper inquiry and giving the civil servant a chance to defend themselves. Even in cases where exceptions apply, judicial oversight ensures that these powers are not misused, thereby upholding the principles of natural justice and constitutional fairness.

INTERNATIONAL RELATIONS

Telegram CEO Arrested in Paris

Pavel Durov, the founder and CEO of Telegram, was arrested in Paris recently on charges related to the alleged use of his messaging platform for illicit activities, including drug trafficking and the distribution of child sexual abuse material.

Telegram

About

- Telegram is a messaging app that allows for one-on-one conversations, group chats, and large channels for broadcasting messages.
- Unlike WhatsApp, which limits group chats to 1,024 participants, Telegram allows up to 200,000 people in a group, raising concerns about the spread of misinformation.
- While Telegram offers end-to-end encryption, this feature is not enabled by default and does not apply to group chats, unlike competitors like Signal and Facebook Messenger, which encrypt chats by default.
- o Only Telegram's "secret chat" feature provides end-to-end encryption.
- o However, it has also been utilized by extremists and drug traffickers.

Founded

- o In 2013 by Pavel Durov and his brother Nikolai.
- Telegram is now based in Dubai, which Durov considers a neutral location that supports the platform's commitment to user privacy and freedom of speech.

Fallouts of Lithium Mining in Chile

- According to a new study, Chile's Atacama salt flat (flat expanses of ground covered with salt and other minerals) is sinking at a rate of 1 to 2 cm per year due to lithium brine extraction.
- The process of extracting lithium from brine involves pumping salt-rich water to the top and through a

sequence of evaporation ponds in order to recover lithium.

- The satellite data collected between 2020 and 2023 shows deformations in the Earth's crust of Atacama salt flat - one of the largest sources of lithium in the world.
- The worst affected areas are those where mining companies are doing most of their pumping of lithium-rich brine.
- That is happening because the pumping takes place at a faster rate than the recharge of aquifers, leading to subsidence or the downward vertical movement of the Earth's surface.



Thailand's New PM

- Thailand elected its youngest-ever prime minister, the 37-year-old Paetongtarn Shinawatra.
- She is the second woman to do so, following her aunt, Yingluck Shinawatra, who was ousted by the Constitutional Court in 2014 just before a military coup.

Electoral system of Thailand

- Bicameral Legislature: Thailand's Parliament is bicameral, consisting of the House of Representatives and the Senate.
- House of representative (lower house)
 - It has 500 members. 400 members are elected through a first-past-the-post (FPTP) system in single-member constituencies. The remaining 100 members are elected through a party-list proportional representation system, where voters cast a second ballot for a political party.
- Challenges: The system has faced criticism for being heavily influenced by the military, particularly through the appointment of senators, and for creating a complex political landscape that can hinder the formation of stable governments.

Saudi Arabia's New Migrant Domestic Workers Law

- Saudi Arabia, a major destination for migrant domestic workers (MDWs), is set to implement a new domestic workers' law in September 2024.
- The country, along with the other GCC states (UAE, Qatar, Kuwait, Oman, and Bahrain), collectively employs approximately 5.5 million MDWs.
 - o These workers are largely excluded from labor laws, leading to significant gaps in protection.

Migrant Domestic Workers in Saudi Arabia

Statistics

- As of Q1 2024, Saudi Arabia had 3,913,925 migrant domestic workers, constituting 25% of the total workforce in Saudi Arabia.
- The <u>exclusion from labor laws leaves them vulnerable, with no access to monitoring mechanisms like labor inspections, complaints mechanisms, or the Wages Protection System.</u>
- These challenges are exacerbated by the **Kafala system**, which ties workers to their employers, leading to a lack of oversight and potential abuse.
 - The kafala, or sponsorship, system defines the relationship between foreign workers and their local sponsor, or kafeel, which is usually their employer.
 - It ties migrant workers to their employers, creating a form of bonded labor.
 - Employers often feel they have "bought" the worker, leading to extreme exploitation.
 - The recruitment cost per worker ranges from \$2,000 to \$5,000, reinforcing this mentality.

Categories of Domestic Work in Saudi Arabia

- Saudi Arabia recognizes 14 categories of domestic work, including:
 - Domestic workers; Drivers (nearly all male); Nannies; Nurses; Cooks; Tailors; Farmers;
 Physiotherapists; Private speech and hearing therapists.

Indian Migrant Domestic Workers in Saudi Arabia

- o Indians make up the largest migrant population in Saudi Arabia, with 2.65 million individuals.
- Many Indians work as drivers or in other domestic roles. The recruitment of Indian MDWs must go through the *eMigrate system*, with a minimum referral wage of SAR1,500 (₹33,400).

- Special provisions for female Indian MDWs include a minimum age of 30 and a financial bank guarantee of \$2,500 in favor of the Indian Embassy in Riyadh.
- However, consular support for distressed workers is often limited to repatriation, with little effort to secure justice or ensure workers receive their entitlements.

The New MDW Law

Notable features

- Working hours: Maximum of 10 hours per day
- Weekly off: Entitlement to one day off per week
- Document security: Prohibition of identity document confiscation
- o Communication rights: Workers have the right to communicate freely
- Contract termination: Workers can terminate contracts under certain conditions without losing entitlements
- Compensation: For unjust termination
- o Annual leave: One month of paid leave per year
- o Annual ticket home: Employer must pay for this
- Additionally, the law includes mandatory insurance on all new MDW contracts and a gradual inclusion of all MDWs in the Wages Protection System by 2025.

Concerns

- Despite the new law, implementation remains a challenge in Saudi Arabia. Wage theft and exploitation are rampant, with limited accountability for employers.
- Female MDWs are particularly vulnerable, as they cannot leave their employer's household without permission, risking being reported as absconding ("huroob").
- o Although there have been reforms to absconding regime, abusive employers can still manipulate the law.
- The lack of labor inspections & communication barriers further complicate the enforcement of workers' rights.

State Visit of Malaysian PM to India

Malaysian Prime Minister Dato Seri Anwar bin Ibrahim visited India from August 19-21. This was his first visit as Malaysia's Prime Minister.

Key highlights

Relationship upgraded to Comprehensive Strategic Partnership

The upgrade follows the 2010 Strategic Partnership and the 2015 Enhanced Strategic Partnership.

Agreements and MoUs Signed

- o Covering workers' mobility, digital technology, culture, tourism, sports, and education.
- o India said that it will support Malaysia's request to join the BRICS grouping.

Additional Rice Export

 India agreed to a special allocation of 200,000 metric tonnes of white rice to Malaysia, addressing Malaysia's request amid food import dependency.

Towards addressing Bilateral Friction

 Both leaders acknowledged the past tensions over issues such as the Citizenship Amendment Act, Jammu and Kashmir reorganization, and the extradition of Zakir Naik. • While the extradition issue was not directly raised, discussions touched on extremism and radicalism, indicating a focus on broader security concerns.

Agreement on Local Currency Trade

- India and Malaysia agreed to settle trade transactions in their local currencies, Indian Rupees (INR) and Malaysian Ringgits (MYR).
- This decision follows a significant \$5 billion investment from Malaysia to India.

Focus on expanding Economic Cooperation

- o Particularly in new technologies like semiconductors, fintech, AI, and quantum computing.
- They agreed to review the Comprehensive Economic Cooperation Agreement (CECA) between India and Malaysia.

• Digital and Startup Collaboration

- Plans were made to establish a Digital Council and a Startup Alliance to foster cooperation in digital technology.
- Efforts will also be made to connect India's UPI with Malaysia's Paynet, enhancing digital financial integration.

• People-to-People Ties

 Agreements were signed to simplify visa procedures and enhance educational exchanges, including the allocation of 100 seats under ITEC Scholarships for Malaysian students in advanced courses like Cyber Security and AI.

Cultural and Educational Initiatives

- An Ayurveda Chair will be established at the University Tunku Abdul Rahman, and a Tiruvalluvar Chair will be set up at the University of Malaya.
- Malaysia's participation in India's recent cultural and historical events, such as the installation of the Sengol in the new Parliament House, was noted with enthusiasm.

India - Malaysia Bilateral Relationship in Brief

- India established diplomatic relations with the Federation of Malaya (predecessor state of Malaysia) in 1957.
- Malaysia is home to over 2.95 million large Indian diaspora and the second largest PIO community in the world after the US.

• Economic & Commercial Relations:

- Malaysia has emerged as 16th largest trading partner for India while India figures among the ten largest trading partners for Malaysia.
- A bilateral Comprehensive Economic Cooperation Agreement (CECA) covering goods, services and investment has come into effect from 2011.
- Bilateral trade reached <u>US\$ 19.89 billion during 2022-23</u>. This includes exports worth approx. US\$ 7.15 billion and imports worth approx. US\$ 12.73 billion.

Major Exports:

 mineral fuels, mineral oils, aluminum and articles thereof, meat and edible meat offal, iron and steel, copper and articles thereof, etc.

Major Imports

 palm oil, mineral fuels, mineral oils, electrical machinery and equipment; animal or vegetable fats and oils, etc.

• Investments:

- Malaysia ranks as the 31st largest investor in India with an FDI inflow of US\$ 1.18 billion from April 2000-September 2023.
- Indian companies have invested in around 250 manufacturing projects of over US\$ 2.62 billion.
- Trade Settlement in Indian Rupees: Trade between India and Malaysia can now be settled in Indian Rupee (INR) in addition to the current modes of settlement in other currencies.

Defense and Security:

- Both nations participate in each other's biennial defense exhibitions, LIMA and MILAN.
- Additionally, India is involved in the Cooperative Mechanism on the Straits of Malacca and Singapore (SOMS), contributing to projects that enhance navigational safety and environmental protection.

PM Modi's Visit to Poland

- PM Modi visited Warsaw for the first leg of his two-nation visit to Poland and Ukraine.
 - o After visiting Poland on August 21, he headed to Ukraine on August 23.
- This visit marked the first-ever visit by an Indian PM to Poland in 45 years.
- This visit coincides with the 70th anniversary of diplomatic relations between India and Poland and is aimed at revitalizing and elevating bilateral ties to a new level.

Key Highlights Of The Visit

• Tribute to memorials

- o PM Modi laid a wreath and paid tribute to The Dobry Maharaja Memorial in Warsaw.
- He also paid his tributes at the memorials for the Valivade-Kolhapur camp and the Monument to the Battle of Monte Cassino in Warsaw.
- PM honoured the brave soldiers who fought in World War II. Indian and Polish troops fought side by side
 in this historic battle.

Upgrade to Strategic Partnership

- o India and Poland elevated their bilateral ties to a "strategic partnership."
- A five-year "Action Plan" (2024-2028) was unveiled, focusing on various sectors including defense, trade, energy, and green technologies.
- o The action plan specifically mentioned:
 - supporting the early conclusion of the ongoing India-EU trade and investment negotiations,
 - operationalisation of the India-EU Trade and Technology Council (TTC) and
 - the implementation of the India-EU Connectivity partnership.

• Social Security Agreement

o It was signed to promote mobility & welfare of skilled workers between the two nations.

Enhanced Defense Cooperation

- Poland expressed eagerness to partner in India's defense modernization efforts.
- Both nations agreed to strengthen defense ties and fully utilize existing bilateral mechanisms like the Joint Working Group for Defense Cooperation.

• Economic and Trade Cooperation

 Efforts will be made to connect the private sector to broaden economic cooperation, particularly in food processing, urban infrastructure, and clean technologies. Polish companies were invited to participate in India's "Make in India" and "Make for the World" initiatives.

Bilateral Connectivity

• The commencement of direct flight connections between India and Poland was welcomed, with plans to further increase flights to new destinations.

• EU-India Relations

- o Both leaders reaffirmed their commitment to deepening the India-EU strategic partnership.
- The importance of peace, rules-based international order, and counter-terrorism efforts were emphasized.

Poland's Upcoming EU Presidency

 Poland's upcoming presidency of the European Union in January 2025 was seen as an opportunity to strengthen India-EU relations.

India – Poland Relation in Brief

Background

- O Diplomatic relations between India and Poland were established in 1954, leading to the opening of the Indian Embassy in Warsaw in 1957 and Polish Embassy in New Delhi in 1954.
- O During WWII, between 1942 and 1948, over 6,000 Polish women and children found refuge in two princely states in India, Jamnagar and Kolhapur.
- O Digvijaysinhji Ranjitsinhji Jadeja, the Jam Saheb of Nawanagar, provided shelter to over a thousand Polish children in his state.
- O Many others found refuge in a giant camp in Kolhapur.

• Economic & commercial Relations

- o Poland continues to be India's largest trading & investment partner in Central & Eastern Europe.
- Over the period 2013-2023, the total bilateral trade with Poland has witnessed an increase of 192% i.e. from US\$1.95 billion in 2013 to US\$5.72 billion in 2023.
- The balance of trade continues to be largely in favour of India in 2023.

Investment

- o Indian investment in Poland has been steadily growing and is now estimated over US\$ 3 billion.
- o Total Polish investment in India is estimated at \$685 million.

Sectoral Collaboration

- o Poland possesses reputed clean coal technologies and Polish public sector companies have played a substantial role in development of mining and power sectors in India.
- Trainee engineers from M/s Coal India Limited trainee have received training in Polish mines that specialize in intelligent mining.
- Chemical Industry is one of the major sectors of the Polish economy and Poland is a **net importer** of chemicals. Chemical products figures in top 5 exports items from India to Poland with organic chemicals taking the lead.
- Textile continues to be the largest segment in the Indian exports to Poland. Polish imports of textiles and textile articles from India have grown to US\$ 645 million in 2023.

Cultural Relations

 A monument, commemorating Jam Saheb Digvijaysinhji Ranjitsinhji Jadeja of Nawanagar, was unveiled in October, 2014 at the Square of the Good Maharaja, Warsaw, Poland. o Another plaque commemorating the Valivade-Kolhapur camp near the Monte Casino War Memorial was inaugurated in November 2017 in Warsaw.

Contribution of Indian Americans to US Society And Economy

Population and Migration

- o The Indian diaspora in the US consists of 5.1 million people, making up 1.5% of the US population.
- About 45% migrated after 2010, with a significant concentration in New York State and California.

Economic Impact:

- Unicorn Startups: Indian migrants lead 72 out of 648 unicorn startups in the US, with a collective value exceeding \$195 billion, employing around 55,000 people.
- Hotel Industry: 60% of US hotels are owned by Indian Americans, generating \$700 billion in revenue and creating over 4 million jobs annually.
- Tax and Spending: The community contributes ~\$300 billion in tax revenues and \$370-\$460 billion in annual spending, driving significant economic growth.

Academic and Research Contributions

- o Indian Americans hold leadership positions in 35 of the top 50 US colleges.
- o They co-authored 13% of all 2023 journal publications in the US, up from 11% in 2015.
- o 28 out of the 34 Scripps Spelling Bee winners since 2000 are of Indian origin.
- o Indian Americans have donated \$3 billion to US universities since 2008.

Philanthropy

The Indian American community contributes \$1.5–2 billion annually to charity.

Two New US-India Agreements

- During Defence Minister's visit to the United States, India and the US signed two significant agreements: the
 Security of Supply Arrangement (SOSA) and a Memorandum of Agreement concerning the Assignment of
 Liaison Officers.
- These agreements are part of a broader effort to enhance bilateral defence and security cooperation.
- Both nations also agreed to advance co-production projects in areas such as jet engines, unmanned platforms, munitions, and ground mobility systems, in line with the 2023 US-India Roadmap for Defence Industrial Cooperation.

Security of Supply Arrangement (SOSA)

- Under SOSA, both nations will provide reciprocal priority support for goods and services critical to national defence.
- This agreement, while legally non-binding, aims to ensure mutual access to industrial resources to address supply chain disruptions.
- o India is the 18th country to partner with the US under SOSA.
 - Additionally, the US is working on finalizing a binding Reciprocal Defence Procurement (RDP)
 Agreement with India to enhance interoperability and standardization of defence equipment.

Memorandum of Agreement on Liaison Officers

 It facilitates the assignment of Indian armed forces officers to key US strategic commands, enhancing information-sharing between the two nations. India's first Liaison Officer will be deployed to the US Special Operations Command headquarters in Florida.

Second India-Singapore Ministerial Roundtable (ISMR)

- The second India-Singapore Ministerial Roundtable (ISMR) was held to discuss bilateral cooperation and exchange views on issues of mutual interests.
 - The ISMR, established in 2022, serves as a platform to review and expand bilateral ties, with Singapore being a significant source of foreign direct investment in India, totaling \$11.77 billion in 2023-24.
- Led by FM Nirmala Sitharaman, the discussions focused on six key pillars: Digitalisation, Skill Development, Sustainability, Healthcare, Advanced Manufacturing, and Connectivity.
- Both nations aim to commemorate the 60th anniversary of their diplomatic relations while exploring regional and global collaboration.

India-Japan '2+2' Dialogue

- The India-Japan "2+2" ministerial dialogue took place in Delhi, reaffirming both nations' commitment to a free, open, and rules-based Indo-Pacific amidst growing Chinese military assertiveness in the region.
- This was their third 2+2 Foreign and Defence Ministerial Meeting.
 - o Inaugural 2+2 dialogue between these two countries took place in 2019.

About 2+2 dialogue

 2+2 meetings are high-level diplomatic dialogues involving the foreign and defence ministers of two countries.

India's 2+2 Partners

United States(2018) Australia(Sept 21) Russia(Dec 21) UK(Oct 23) Brazil(Mar 24)

India Allows Nepal To Export Additional 251 MW Of Power

- India has approved Nepal's export of an additional 251 MW of electricity, marking the first medium-term sales agreement for power supply to Bihar.
- With this addition, <u>Nepal will export 941 MW from 28 hydropower projects</u>, up from 690 MW from 16 projects previously.
 - Nepal has already become a net exporter and revenue generator, having sold NPR 16.93 billion worth of electricity last fiscal year.
- Nepal's power exports to India have grown significantly since October 2021, and the country has entered into medium-term agreements with Indian states like Haryana and Bihar.
- India has also included <u>Nepal's hydropower in the Hydropower Purchase Obligation (HPO) framework,</u> incentivizing its purchase.
- A long-term agreement between India and Nepal aims to sell up to 10,000 MW over the next decade, with around 1,000 MW already exported this year.
- Additionally, an agreement to sell 40 MW of power to Bangladesh was planned but postponed due to recent political developments.

Visit of Vietnamese PM to India

Vietnamese Prime Minister Pham Minh Chinh came to India for a three-day visit, aimed at deepening the strategic ties between India and Vietnam.

Key Outcomes of the Latest Bilateral Meet

- India and Vietnam signed nine agreements to enhance their comprehensive strategic partnership in areas such as customs, agriculture, legal matters, broadcasting, culture, and tourism.
- Both sides highlighted the increasing nature of bilateral trade, which has reached \$15 billion, and agreed on the need for closer cooperation in various sectors, including defence, digital technology, and renewable energy.
- Both sides agreed on a new plan of action for their comprehensive strategic partnership established in 2016.
 This will be implemented over the next five years (2024-2028).
- The central banks of both countries reached an agreement to <u>establish digital payment connectivity</u>, <u>enhancing financial transactions between the two nations</u>.
- India decided to extend a USD 300 million credit line to Vietnam to support its military security and development projects.

India-Vietnam Bilateral Relationship

- India and Vietnam, have a long history of cultural and civilizational links and common roots in the struggle for independence from colonial rule.
- India was the Chairman of the International Commission for Supervision and Control (ICSC), which was formed pursuant to the Geneva Accord of 1954 to facilitate the peace process in Vietnam.
- India initially maintained Consulate-level relations with the then North and South Vietnams and later established full diplomatic relations with unified Vietnam in 1972.
- Relations between the two countries were elevated to the level of 'Strategic Partnership' in 2007. Later, in 2016, it was upgraded to Comprehensive Strategic Partnership.

• Trade & Economic Cooperation:

O Bilateral Trade Growth:

India-Vietnam trade in FY24 was USD 14.82 billion.

Trade Rankings :

- Vietnam was India's 21st largest trading partner globally.
- Vietnam was the 5th largest trading partner within ASEAN for India.

O Key Export Items from India to Vietnam:

Iron and steel, Cotton, Cereals, Meat and fishery products, Electrical machinery and equipment,
 Machinery and mechanical appliances

O Key Import Items into India from Vietnam:

 Electrical and electronic equipment, Chemicals, Machinery and mechanical appliances, Articles of plastic, copper, and rubber, Coffee, tea, and spices

Defence Partnership:

O Defence Industrial Collaboration:

- Focuses on defence modernization and capacity building.
- India's Defence Lines of Credit to Vietnam totals US\$600 million.
- Handover of 12 High-Speed Guard Boats by L&T under US\$100 million Defence Line of Credit.
- Indigenously built missile corvette INS Kirpan was gifted by India in 2023.

Military exercise

- VINBAX is a joint military exercise between India and Vietnam that focuses on military training, cooperation, and understanding.
- In February 2024, Vietnamese naval ship participated in the MILAN international maritime exercise in India.

India to Open Embassy in Timor-Leste

- During her historic visit to Timor-Leste, President Droupadi Murmu announced that India will soon open an embassy in Timor-Leste, while Timor-Leste will establish a resident mission in New Delhi.
 - The decision to open an embassy in Dili was also highlighted by PM Modi at the ASEAN-India Summit in Jakarta in 2023.
 - Currently, Timor-Leste residents must obtain visas from the Indian embassy in Indonesia, a situation that will change with the opening of the new embassy in Dili.
- During this visit, she was awarded the **Grand Collar of the Order of Timor-Leste**, the nation's highest honor.

About Timor-Leste

- Timor-Leste, also known as East Timor, is a country in Southeast Asia.
- It is located on the eastern half of the island of Timor, with the western half belonging to Indonesia.
- Timor-Leste is bordered by the Timor Sea to the south and the Banda Sea to the north.
- The capital of Timor-Leste is Dili.
- In September 2022, ASEAN members agreed in principle to admit East Timor as the group's 11th member.

Visit of President of India to Fiji

- President Droupadi Murmu embarked on a historic State Visit to Fiji, marking the first-ever visit by an Indian Head of State to the country.
- During this visit, President Murmu was honored with Fiji's highest civilian award, the Companion of the Order of Fiji.
- In her address she acknowledged the contributions of Indian diaspora, particularly the Girmitiyas.
 - Girmitiyas were indentured labourers from British India transported to work on plantations in various countries including Fiji.
- The President Murmu and Prime Minister Rabuka presided over a ceremony to allocate sites for the Indian High Commission Chancery, Indian Cultural Centre Complex, and a 100-bed Super Speciality Hospital in Suva.
- President Murmu also addressed the Indian diaspora, celebrating their resilience and contributions to Fiji over 145 years.

Visit of President of India to New Zealand

- President Murmu visited New Zealand on the second leg of her State Visit to Fiji, New Zealand and Timor-Leste.
- During this visit, she addressed the New Zealand International Education Conference, where India was the 'Country of Honour,'.
- During the visit, she also announced that India will soon open a Consulate in Auckland to further strengthen diplomatic ties with New Zealand and facilitate the diaspora.

SUMMITS AND ORGANISATIONS

India's Policy On Refugees

- Former Bangladesh PM Sheikh Hasina is expected to remain in India after violent protests forced her to flee Bangladesh.
 - She had planned to travel to the UK, where her family members reside, but faced a "technical roadblock" due to the UK's immigration rules, which require asylum requests to be made from within the country.
 - Since she doesn't have a visa to travel to the UK, she couldn't proceed.
 - o She has been staying in India on a visa and not in asylum or as a refugee. Her visa has been revoked.
- India has allowed her to stay despite not having a formal refugee policy, raising questions about how refugees should be treated, a topic recently highlighted by the Rohingya refugee situation.

India And Its Policy On Refugees

• Not a signatory to the 1951 UN Convention on the Status of Refugees

- India is not a signatory to the 1951 UN Convention on the Status of Refugees or its 1967 Protocol, which
 define the status and rights of refugees.
- These agreements specify that a refugee is someone who cannot return to their home country due to a well-founded fear of persecution based on factors like race, religion, or political opinion.
- As a result, India does not have an official policy for refugees.

• Laws governing refuges in India

- o Refugees in India are treated as per the Foreigners Act and the Indian Passport Act.
- The Citizenship Amendment Act, 2019 discriminates between refugees based on religion in offering them
 Indian citizenship.

• India's treatment of refugees has been inconsistent

- o Despite not being bound by these conventions, India has historically welcomed various refugee groups.
- Nearly 300,000 people in India are classified as refugees, including Tibetans, Chakmas from Bangladesh, and people fleeing conflicts in Afghanistan and Sri Lanka.
- o However, India's treatment of refugees has been inconsistent.
- While the UNHCR has been allowed to issue identity cards to Rohingya refugees from Myanmar, the Indian government has labeled many of them as illegal immigrants under domestic laws like the Foreigners Act and the Indian Passport Act.
- The Citizenship Amendment Act (CAA) of 2019 complicates matters further by providing a path to citizenship for certain persecuted religious minorities from neighboring countries, but notably excluding Muslims, introducing a religious criterion into the refugee issue.
- India's handling of refugees varies by country of origin, as seen with Sri Lankan Tamil refugees in Tamil Nadu.
- The state government provides them with allowances, permits them to work, and allows their children to attend school.
- Following the end of the Sri Lankan civil war in 2009, India has supported their voluntary repatriation, allowing them to decide, often with UNHCR's assistance, whether it is safe to return home.

Extradition of Sheikh Hasina

- Former Bangladesh PM Sheikh Hasina is facing multiple criminal cases in Bangladesh, leading to the possibility that her extradition may be sought by the Bangladeshi government.
- Experts point out the fact that if the home and law ministries of Bangladesh decide, India may require Hasina to return. This could diplomatically embarrass India.

Extradition Treaty between India and Bangladesh

Key provisions of the treaty

- The extradition treaty between India and Bangladesh mandates that both countries extradite individuals who:
 - have been charged with, found guilty of, or
 - are wanted for committing an extraditable offence by a court in the requesting country.
- An extraditable offence, as defined by the treaty, is one that carries a **minimum** punishment of one year imprisonment, including financial crimes.
- For an offence to be considered extraditable, the principle of dual criminality must apply, meaning the offence must be punishable in both countries.
- The treaty also allows for extradition in cases involving attempts to commit, aiding, abetting, inciting, or participating as an accomplice in an extraditable offence.

• Exceptions to these rules

- The <u>extradition treaty between India and Bangladesh allows for refusal of extradition if the offence is of</u> a political nature.
- However, this exemption is limited by a detailed list of offences that cannot be classified as political.
- These include serious crimes such as murder, manslaughter, assault, causing explosions, possession of
 explosives or weapons with intent to endanger life, use of firearms to resist arrest, property damage with
 intent to endanger life, kidnapping, hostage-taking, incitement to murder, and any terrorism-related
 offences.

India's Dilemma w.r.to Hasina

Can Hasina be extradited by Bangladesh?

- Hasina, a political player, is facing multiple serious charges that complicate her potential claim for political asylum in India.
- o The charges include:
 - Accused of murdering a grocery store owner who was killed in police firing.
 - Accused of enforced disappearance related to the kidnapping of a lawyer in 2015.
 - Charged with murder, torture, and genocide in a separate case.
- The situation is complicated by a 2016 treaty amendment, which removed the need for evidence of the alleged crime in extradition cases.
- Now, only an arrest warrant from a competent court in the requesting country is required for extradition.

• Given a request, will India have to send Hasina back?

o India can refuse Hasina's extradition.

Treaty signed in 2013



- India and Bangladesh signed an extradition treaty in 2013, amended in 2016 to streamline the process of exchanging fugitives.
- The treaty was established due to concerns over Indian insurgents, particularly from the North East, hiding in Bangladesh, and Bangladeshi militants.
 - Many Bangladeshi militants such as those from Jamaat-ul-Mujahideen Bangladesh (JMB), sought refuge in Indian states like West Bengal and Assam.
- The treaty enabled India to successfully extradite Anup Chetia, a top leader of the United Liberation Front of Assam (ULFA), from Banaladesh in 2015.
- India has also handed over a few Bangladeshi fugitives to its neighbor under the treaty.

- o Article 8 lists out multiple grounds for refusal including cases in which:
 - an accusation has not been made in good faith in the interests of justice or
 - in case of military offences which are not an offence under the general criminal law.
- o India has the option of refusing Hasina's extradition on the ground that the accusations made against her are not "in good faith in the interests of justice".
 - Article 7, which allows refusal if the person can be tried in the Requested State, is not applicable in Hasina's case.
- o But this has the potential to adversely impact New Delhi's relations with Dhaka's new ruling dispensation.

Global South Summit 2024

- The 3rd Voice of the Global South Summit (VOGSS) was hosted by India in virtual format. It was held with the
 overarching theme of "An Empowered Global South for a Sustainable Future".
- India had hosted the 1st VOGSS in January 2023, and the 2nd Voice of Global South Summit in November 2023, both in virtual format.

Key Highlights

Global development compact

- o PM Modi proposed the creation of a human-centric Global Development Compact.
 - Announcing the 'Compact', PM Modi said <u>needy countries will not be burdened with debt in the name of development finance</u>.
 - The foundation of the 'Compact' will be based on India's development journey and experiences of development partnership.
- Under this Compact, members will focus on trade for development, capacity building for sustainable growth, technology sharing, project-specific concessional finance and grants.
- o To strengthen trade promotion activities, India will start a special fund of USD 2.5 million.

• Highlighted failure of global institutions

 PM Modi said that the global governance and financial institutions formed in the last century have been unable to fight the challenges of this century.

India's Contribution to Digital Public Infrastructure in the Global South

- The Prime Minister referred to last year's G20 presidency, stating that the Global DPI Repository, created under India's leadership, marked the <u>first-ever multilateral consensus on Digital Public Infrastructure</u> (<u>DPI</u>).
- He expressed satisfaction that agreements have been signed to share the 'India Stack' with 12 partners from the Global South.
- o To further accelerate DPI development in the Global South, India has established a **Social Impact Fund** and will make an initial contribution of USD 25 million.

Global South

Not a geographical line

- Many countries included in the Global South are in the northern hemisphere, such as India, China and all
 of those in the northern half of Africa.
- o Australia and New Zealand, both in the southern hemisphere, are not in the Global South.

Brandt Line as the border

Many people refer to the Brandt Line as the border.

- The line was proposed by former German Chancellor Willy Brandt in the 1980s as a <u>visual</u> depiction of the north-south divide based upon per-capita GDP.
- It starts in the north of Mexico, goes across the top of Africa and the Middle East, makes a loop around India and China, and then goes down to include most of East Asia. <u>It doesn't include</u> Japan, Australia, or New Zealand.

Global North Citidad South

Global South as a concept

 The Global South is a geographical, geopolitical, historical and developmental concept, all at the same time — with exceptions.

India as the Leader of Global South

One of the various visions of G20 presidency

- When India assumed the G20 presidency on December 1, 2022, it set out various visions for the nation's year-long presidency and the Global South was one of them.
- o India organized eight ministerial-level thematic segments to address the most pressing concerns of the developing world.
- India Raised the issues concerning Global South on the international forums and at the United Nations meetings and conferences.

During Covid-19 pandemic

 Made-in-India vaccines were sent to about 100 countries. And about 150 nations imported medicines during this period from the Pharmacy of the World.

Hosted the Voice of Global South Summit on regular basis

- o India even ensured that the region remained centre stage at the G7 Summit in Hiroshima in May this year.
- African Union admitted as a full member of the G20 under India's presidency.

• 15th BRICS Summit in South Africa

 During this summit, PM Modi said that the Global South is not just a diplomatic term but represents the <u>shared history of these countries against colonialism and apartheid based on which modern</u> relations are being reshaped.

Two-day event on international taxation

- o In an attempt to voice the views of the Global South on important international issues, India held a two-day event on International Taxation at the National Academy of Direct Taxes (NADT), Nagpur.
- This event was an initiative of the Indian Presidency to bolster capacity building for Indian tax officials in the area of International Taxation, with a global south perspective.

• India-UN Capacity Building Initiative

- In September 2023, the "India-UN Capacity Building Initiative" was announced at the event India-UN for the Global South-Delivering for Development.
- The initiative aims to share the country's best practices with partner countries in the Global South.

Inauguration of DAKSHIN

 During the second Voice of Global South summit, PM Modi inaugurated a global centre for excellence for the Global South countries called DAKSHIN.

Proposal to launch a satellite

 During the G20 Summit, India proposed to launch a satellite for monitoring weather and climate monitoring for Global South.

ILO to Help Eliminate Child Labour, Forced Work in Cotton Fields

- The International Labour Organisation (ILO) and the Confederation of Indian Textile Industry have launched a joint initiative to eliminate child labour and forced labour in India's cotton fields.
- The project, titled *Promoting Fundamental Principles* and Rights at Work (FPRW), will target 65 lakh cotton farmers across 11 states.
- It aims to promote freedom of association, eliminate discrimination, and create a safe work environment.
- The collaboration will provide farmers with information on government schemes, promote financial inclusion, and support education and skill development in cotton-growing communities.

International Conference of Agricultural Economists (ICAE-2024)

- The **triennial** conference organized by the International Association of Agricultural Economists was held in India. It took place in India after 65 years.
- The theme for this year's conference is "Transformation Towards Sustainable Agri-Food Systems," focusing
 on sustainable agriculture amidst global challenges such as climate change, resource degradation, rising
 production costs, and conflicts.

About International Conference of Agricultural Economists (ICAE)

- It is a prestigious event organized by the International Association of Agricultural Economists (IAAE).
- This conference gathers experts, researchers, policymakers, and practitioners from around the world to discuss critical issues and advancements in agricultural economics.

Purpose:

- o ICAE aims to facilitate the exchange of knowledge, ideas, and innovations in the field of agricultural economics.
- o It addresses global challenges related to agriculture, food security, rural development, and sustainability.

Global Impact:

- o The conference provides evidence-based insights and recommendations.
- It promotes the application of economic principles to improve agricultural productivity, sustainability, and food security.

• Frequency and Location:

ICAE is held in different locations around the world, emphasizing its global scope and reach.

International Organisations w.r.t. Child Labour:



- United Nations Children's Fund:
- UNICEF, presently known as the United Nations Children's Fund, is a United Nations agency.
- > Objective: To provide humanitarian and developmental aid to children worldwide.
- UNICEF is guided by the Convention on the Rights of the Child. 1989.
- > It relies entirely on voluntary contributions from governments and private donors
- UNICEF's programs emphasize developing community-level services to promote the health and well-being of children
- > Headquarters: New York, U.S.

International Labour Organisation (ILO):

- > It is a United Nations agency. Founded in 1919, under the League of Nations, it is the first and oldest specialised agency of the UN.
- > Objective: To advance social and economic justice through setting international labour standards.
- Unlike other UN specialized agencies, the ILO has a tripartite governing structure that brings together governments, employers, and workers of member states, to set labour standards, develop policies and devise programmes promoting decent work for all women and men.
- > Headquarters: Geneva, Switzerland

DEFENSE AND SECURITY

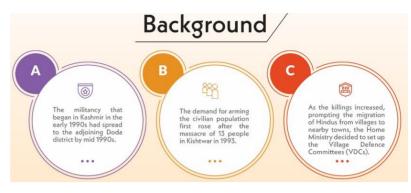
Village Defence Guards Provided With Sophisticated Weapons

Recently, Union Minister Jitendra Singh announced that Village Defence Guards (VDGs) in the Jammu region have been equipped with sophisticated weapons to address rising terror incidents.

Village Defence Guards (VDGs)

About

- VDGs, formerly known as Village Defence Committees (VDCs), are community-based security groups established in the Jammu and Kashmir region.
- Initiated in 1995, the program was aimed at providing local defense against terrorist activities, especially targeting vulnerable communities.



Composition

- Law enforcement agencies will form groups of armed civilians from the "more vulnerable areas."
- o Each group will have no more than 15 members.
- Members are typically volunteers from the community, including ex-servicemen, able-bodied youth, and other civilians who undergo basic training in self-defense and weapon handling.
- Control: The VDGs will function under the direction of the SP/SSP of the district concerned.

Key Functions

- Surveillance and Patrolling: VDGs conduct regular patrols and monitor suspicious activities, acting as the first line of defense against terrorist infiltrations.
- Intelligence Gathering: They collect and share vital information with security forces, aiding in preemptive actions against potential threats.
- Community Mobilization: By involving local residents, VDGs foster a sense of responsibility and vigilance within the community.

• Contribution of VDCs in the past

- During the peak of militancy in most parts of Jammu division, the VDCs played a significant role in combating militancy.
- They were the most-feared armed groups among militants in areas where poor road networks delayed the arrival of security forces.
- The villagers, well-versed with the local topography, averted many militant attacks and helped in their capture and killings.

Challenges

- Resource Constraints: VDGs often face limitations in terms of financial and logistical support, affecting their operational efficiency.
- Security Risks: Members of VDGs are at a high risk of being targeted by terrorists-
- Accountability Issues: There have been past allegations of misuse of power by VDG members, including crimes such as abduction and rape, which led to a temporary discontinuation of the program.

Current status

- The VDGs are being revived and strengthened since 2022 in response to the rising incidents of terror in the Jammu region.
- Recent initiatives have included the provision of sophisticated weapons and enhanced training to better equip these groups to handle the evolving security challenges.

Storm-2035

- OpenAl announced that it had banned ChatGPT accounts connected to an Iranian influence operation that aimed to generate content to sway the U.S. presidential election.
- OpenAl identified a group involved in an Iranian influence operation, dubbed "Storm-2035," which operated through some websites posing as news organizations.
- These sites, including EvenPolitics, Nio Thinker, Westland Sun, Teorator, and Savannah Time, exploited divisive issues such as LGBTQ rights and the Israel-Hamas conflict to influence U.S. voters.
- According to a Microsoft Threat Analysis Center (MTAC) report, the sites used AI tools to plagiarize content
 and drive web traffic. The operation targeted both liberal and conservative voters in the U.S.
 - The group used ChatGPT to generate long-form articles and social media comments, which were then posted on X and Instagram accounts.
 - These AI-generated posts mimicked American language patterns, rehashed existing comments or propaganda, and significantly reduced the time needed to produce and distribute plagiarized content aimed at influencing voters.
 - It not only targeted the upcoming U.S. presidential election but also covered global issues such as Venezuelan politics, Latin rights in the U.S., the situation in Palestine, Scottish independence, and Israel's participation in the Olympic Games.
 - o It also exploited popular topics like fashion and beauty.

Exercise Tarang Shakti 24

- The Indian Air Force (IAF) hosted its biggest-ever multilateral exercise, Tarang Shakti.
 - This was India's first multilateral air exercise in the last six decades.
- The exercise involved 150 aircraft and nearly 30 countries, with the goal of strengthening military ties and showcasing the participating nations' air power.
- The exercise had two phases. The first phase, in Sulur, Tamil Nadu, included air forces from 10 countries, including France, Spain, and Germany.
 - The second phase included participants from the US, Australia, Greece, Singapore, Bangladesh, and the United Arab Emirates. It will be held in September.
- The exercise coincided with India's Independence Day celebrations and aimed to boost military cooperation and highlight India's defense industry.
- The exercise does not have any specific theme nor aimed at any particular nation. It is a biennial exercise.

Denial-of-Service (DoS) attack

- Elon Musk had hosted former US President and Republican Presidential candidate Donald Trump for a live audio interview on his social media platform X.
- The conversation experienced a 40-minute delay and several technical glitches, which Musk attributed to a
 massive DDoS attack on the platform.

Distributed Denial of Service (DDoS) Attack

About

- A DDoS attack is a cyberattack where multiple compromised computers are used to flood a network, server, or website with an overwhelming amount of traffic.
- This excess traffic can slow down or crash the targeted system, making it unavailable to legitimate users.
 The attack aims to disrupt normal operations and cause service outages.

Different ways of carrying out DDoS attacks

- Smurf Attack: Attackers send Internet Control Message Protocol (ICMP) broadcast packets with a spoofed source IP address of the target. When multiple hosts respond, they flood the target's server, causing a DDoS attack.
- SYN Flood: Attackers send connection requests to a server but do not complete the connection. The server's resources are overwhelmed by numerous incomplete connections, disrupting legitimate connections.

Long Range Glide Bomb 'GAURAV'

- DRDO successfully tested the Long Range Glide Bomb (LRGB), GAURAV, from an Indian Air Force Su-30 MK-I aircraft off the coast of Odisha.
- The 1,000 kg glide bomb, developed indigenously by the Research Centre Imarat (RCI) in Hyderabad, is designed to hit targets at long distances using a combination of INS and GPS for precise navigation.
- The flight test demonstrated pinpoint accuracy, with data captured by telemetry and tracking systems.

Inauguration Of New MRCC In Chennai

- Defence Minister Rajnath Singh inaugurated a new Maritime Rescue Coordination Centre (MRCC) in Chennai, along with two additional Coast Guard units via video-conferencing:
 - o Regional Marine Pollution Response Centre (RMPRC) in Chennai and
 - o a Coast Guard Air Enclave in Puducherry.
- The MRCC, equipped with advanced distress monitoring and communication systems, will enhance maritime rescue operations on India's east coast.
- The RMPRC, located at Chennai Port, is the first facility in the Indian Ocean Region dedicated to marine pollution response.
- The Puducherry Air Enclave will house Chetak and Advanced Light Helicopter Squadrons for various maritime missions.

Exercise Mitra Shakti

- Exercise Mitra Shakti, the 10th edition of the bilateral military exercise between India and Sri Lanka, took place
 at the Army Training School in Maduru Oya, Sri Lanka.
- The exercise aims to enhance joint military capabilities for counter-insurgency operations under the United Nations Mandate.
- It includes tactical drills such as response to terrorist actions, establishment of command posts, and counterdrone operations.
- As part of the exercise, both armies have deployed canines ("K9s"): India has sent Zac, a Belgian Malinois trained in various tactical operations, while Sri Lanka has fielded two canines.

India to be Free of Naxalism by 2026

- Union Home Minister Amit Shah declared that the final battle against Maoists is imminent and will be ruthless, with the goal of eradicating Left-Wing Extremism (LWE) in India by March 2026.
- At a meeting in Raipur with officials from Chhattisgarh and neighboring states, the minister highlighted the significant decline in Maoist violence over the past decade, with incidents dropping by 53% and related deaths by 70%.
- The number of LWE-affected districts has decreased from 96 to 42, and the number of LWE-hit police stations has reduced from 495 to 171 (by 2023)

India Gets Second Nuclear Submarine With Commissioning Of INS Arighaat

- India has got its second nuclear submarine with the commissioning of INS Arighaat into the Navy.
- INS Arighaat will join its predecessor INS Arihant strengthening the country's nuclear triad the ability to fire nuclear missiles from platforms in the air, land and sea.
- The 6,000-tonne nuclear-propelled submarine will be armed with indigenously made K-15 missiles which have a range of over 700 km.
- Like INS Arihant, it is powered by 83 MW pressurised light-water reactors which allows it to remain submerged for longer periods when compared to conventional submarines.
- The presence of both INS Arihant and INS Arighaat will enhance India's capability to deter potential adversaries and safeguard its national interests.

ENVIRONMENT AND GEOGRAPHY

National Monsoon Mission

A new mission to improve weather forecasting, with a budget of at least Rs 10,000 crore is expected to be launched soon. It is likely to be several times bigger than the existing National Monsoon Mission.

- The mission will focus on developing advanced computer simulation models tailored to India's unique climate scenarios. It will include the deployment of more sophisticated instruments like Doppler radars and new weather satellites.
- Additionally, the mission plans to integrate artificial intelligence and machine learning (AI/ML) to improve hyperlocal forecasting, with successful experimental models already showing promise in cities like Mumbai.

Achievements and Impact of NMM

The NMM has successfully integrated these models into operational use, providing reliable forecasts that aid in disaster management, agricultural planning, and energy production.

Challenges of National Monsoon Mission

- Complexity of Monsoon Dynamics makes accurate prediction challenging:
 - The Indian monsoon is influenced by a multitude of factors, including oceanic conditions, land surface processes, and atmospheric circulations.

Data Limitations:

 Availability and quality of observational data, particularly in remote and rural areas, can be inconsistent, leading to potential inaccuracies in predictions.

• International Collaboration:

 While collaboration with foreign institutes is a goal of the NMM, aligning different methodologies, standards, and data-sharing protocols across countries can be complex and requires sustained diplomatic and technical efforts.

Adaptation to Climate Change:

 Adapting the NMM to account for climate changes and improving resilience to climate variability is a critical challenge.

National Monsoon Mission (NMM):

- This has made significant advancements in weather and climate prediction by developing state-of-the-art models that are now fully operational. These models cover a wide range of forecasting periods, including:
 - Short-range (1-10 days)
 - Medium-range (10-30 days)
 - Seasonal (up to one season)
- Over the past three years, the models created under the NMM have consistently demonstrated high accuracy in predicting key weather events across different time scales.

Objectives of NMM:

- To enhance monsoon prediction capabilities across India for all time scales.
- To achieve this, the mission is implemented nationwide, encompassing al States and UTs.
- Key Targets of the Monsoon Mission:
 - O Development of a Seamless Prediction System
 - International Collaboration: Coordinate partnerships between Indian and international institutes to develop systems for predicting extreme weather events and climate applications.
 - o Implementation of Climate Application Systems
 - **)** Develop and implement systems for climate applications with significant social impacts, including:
 - Agriculture: Enhancing crop planning and yield predictions.
 - Flood Forecasting: Improving preparedness and
 - Extreme Events Forecasting: mitigating their effect
 - Wind Energy: Optimizing energy production based on weather forecasts.
 - Advanced Data Assimilation

Regional Disparities:

There are disparities in how different regions of India benefit from the predictions made under the NMM.
 Ensuring that all regions, particularly the most vulnerable, receive timely and accurate forecasts is a challenge that needs continuous attention.

Movement of Ballast Water In India

The Tamil Nadu Water Resources Department (WRD) has informed the National Green Tribunal that it has requested ₹160 crore from Kamarajar Port in Ennore, Tamil Nadu, to address the removal of invasive *charru mussels* (*Mytella strigata*) along the coast. These mussels are harming marine ecosystems and obstructing fisher boat movements, impacting livelihoods.

The WRD accuses Kamarajar Port of contributing to the spread of the invasive species by failing to regulate ballast water from ships.

Invasive Species and Their Threat to Ecosystems

About

- o Invasive species are non-native organisms that are introduced, either accidentally or intentionally, into a new environment where they do not naturally occur.
- These species often spread rapidly and can cause significant harm to the local ecosystems, economies, and human health.
- Invasive species can outcompete native species for resources, alter habitats, disrupt food webs, and even lead to the extinction of native species.
- One of the primary ways invasive species are introduced is through human activities, such as global trade and transportation.
- o For example, ballast water from ships, which is used to stabilize vessels, often contains various marine organisms. When this water is discharged in a new location, it can introduce invasive species to the area.

• Case Study: Charru Mussels (Mytella strigata)

About

- Native to South America, the charru mussel has spread to other regions, including the coast near Kamarajar Port in Ennore, Tamil Nadu.
- The spread of this species is largely attributed to ballast water discharge from ships, which is not adequately regulated.

Threats posed to marine ecosystems

- It reproduces quickly and forms dense colonies, which can outcompete native species for space and resources.
- The mussels attach to various surfaces, including rocks, other marine organisms, and even man-made structures like boats and docks.
- In the Ennore region, the proliferation of charru mussels has also had economic and social impacts.
- The dense colonies of mussels hinder the movement of fishing boats, affecting the livelihoods of local fishermen.
- Its survival rate and egg production is very high. Though of marine origin, it can survive even in fresh water.

LAWS REGULATING MOVEMENT OF BALLAST WATER **Global regulations** The Ballast Water Management (BWM) Convention, enforced by the International Maritime Organization (IMO) since 2017, aims to prevent the spread of harmful aquatic organisms and pathogens through ships' ballast water. Ships must now manage their ballast water to remove or neutralize these organisms before discharge in new locations. Newly built ships with ballast water management systems treat the water with chemicals to eliminate biological organisms. 📤 Older ships without such systems are required to exchange ballast water taken in at ports with neutral ocean water during their journey. Countries like Australia and New Zealand are particularly strict in enforcing these regulations to protect their marine ecosystems. As of July 2024, 97 countries have signed the BWM Convention of IMO, but India is not among them Situation Consequently, ships docking at Indian ports are not obligated to follow the BWM Convention. in India While Indian ports enforce other rules, such as those related to oil discharge, ballast water remains unchecked.

Way forward for India

Maritime law experts note that ports are facilitators and cannot be held liable unless a law is in place.

- If there is any evidence that a vessel has pumped out the ballast water that led to the invasive species, then the vessel owner can be held liable if a law is in force.
- Hence, India must join the BWM Convention to address this gap.

Climate Change Bill by South Africa

The Climate Change Bill was passed by South Africa's National Assembly.

Rationale behind Bill

- South Africa relies on coal as its primary fuel source for electricity generation and is one of the world's top 15 greenhouse gas (GHG) emitters.
- This Bill would enable Country to meet its emissions reduction commitments in Nationally Determined Contribution (NDC) under the Paris agreement.

Key Features:

• The bill will impose mandatory curbs & caps on the emissions from large, fossil-fuel heavy industries and require climate-adaptation plans from towns and villages.

India's case

- India does not have comprehensive legislation on climate change. A Private Member's Bill, called the Council on Climate Change Bill was proposed in 2022, but no significant development further.
- Existing laws in this regard: Environmental Protection Act, Forest Conservation Act, Energy Conservation Act, Water (Prevention and Control of Pollution) Act among others.

Displacement of Tribals due to Project Tiger

Recent study found that Project Tiger is expected to displace at least 5,50,000 Scheduled Tribes and other forest dwellers.

More About study (The report, titled "India's Tiger Reserves: Tribals Get Out, Tourists Welcome")

- In the last five years displacement has significantly increased, with an average of 48,333 people displaced from each reserve, a 967% rise compared to pre-2021 figures.
- Loss of Livelihoods: Traditional Forest based livelihoods like hunting, fishing, and gathering food become impossible.
- Victims face severe human rights abuses including extra-judicial killings, enforced disappearances, torture, and other forms of violence.
- Threats to cultural practices: Displacement disrupts cultural practices, access to sacred sites, and burial grounds. Indigenous knowledge about forests and wildlife is also lost.

Case Studies of coexistence of Man-Animal for Mutualism:

- Karnataka's Biligiri Rangaswamy Temple Tiger Reserve: where the **Soliga tribe** lives harmoniously with tigers, resulting in a significant increase in the tiger population.
- **Maldhari tribal community** in the Gir National Park in Gujarat, are known for their simple lives, peaceful coexistence with the park's Asiatic lions.
- Bishnoi community of Rajasthan is known for their protection of black bucks.

Woody Encroachment

Scientists reported that more trees in open ecosystems like savannahs and grasslands have substantially reduced the number of native grassland birds.

About Woody Encroachment

• Woody encroachment refers to the gradual increase in the density of woody plants, such as trees, shrubs & bushes, in areas that were previously dominated by grasses or herbaceous vegetation. This phenomenon is often observed in grasslands, savannas & other open ecosystems.

Causes:

- 1. Climate change: Altered precipitation patterns, increased CO2 levels & Increased nitrogen, and warmer temperatures can favor woody plant growth.
- 2. Fire suppression: Historically, many ecosystems relied on periodic fires to maintain grasslands. The suppression of fire can allow woody plants to establish and spread.
- 3. Overgrazing: Excessive grazing by livestock can reduce grass cover, creating opportunities for woody plants to colonize.

Case Studies

- **North American Prairies:** Woody encroachment is a significant issue in the Great Plains, where fire suppression & agricultural practices have allowed shrubs & trees to invade native grasslands.
- Australian Rangelands: Here invasive species and altered fire regimes have transformed ecosystems.

Methanotrophs

India's first cultures of indigenous methane-mitigating agents methanotroph Methylocucumis oryzae, were reported from rice fields and wetlands in Western India.

About Methanotrophs (Methane Eaters/ Methane-utilizing bacteria)

- They are a specialized group of bacteria (archaea) capable of using methane (CH4) as their sole source of carbon & energy to convert into carbon Dioxide. These microorganisms are found in various environments.
 - ✓ Methane, the second most important greenhouse gas, has 26 times more global warming potential compared to carbon-di-oxide. Wetlands, ruminants, rice fields, landfills are sources of methane produced by the action of methanogens.
- Working: Methanotrophs convert methane into organic compounds through a process called methanotrophy. This process involves the oxidation of methane to methanol, formaldehyde, and eventually carbon dioxide. The energy released during methane oxidation is used by methanotrophs for growth and reproduction

Importance

- 1. Climate Regulation: By consuming methane (a potent greenhouse gas) methanotrophs help mitigate climate change.
- **2.** Environmental Remediation: They are used in bioremediation to clean up contaminated sites with high methane levels.
- **3.** Industrial Applications: Methanotrophs have potential applications in producing biofuels and other valuable chemicals.

Pyrocumulonimbus Clouds

Wildfires in the U.S. and Canada are generating 'pyrocumulonimbus' clouds, which can produce thunderstorms and ignite additional fires.

About Pyrocumulonimbus Clouds (PyroCb or Fire Clouds)

 PyroCb, are a type of cumulonimbus cloud that forms due to intense heat from wildfires, volcanic eruptions, or large-scale combustion events. • PyroCb clouds can inject large amounts of aerosols, including ash and smoke, into the stratosphere. These aerosols can remain suspended for extended periods, affecting climate by reflecting sunlight and cooling the Earth's surface.

Formation

- **Heat and Updrafts:** The extreme heat from the fire rapidly warms the surrounding air, causing it to rise rapidly.
- <u>Condensation and Cloud Development:</u> As the hot air ascends, it adiabatically cools & moisture within it condenses into water droplets, forming a cumulus cloud.
- If the fire is large enough & the atmospheric conditions are right, the cumulus cloud can develop into a towering cumulonimbus cloud, capable of producing lightning, thunder & even tornadoes.

Bio-bitumen

Government of India plans to allow up to 35% bio-bitumen mixing with petroleum-based bitumen to reduce foreign exchange outflows.

About Bio-bitumen (Sustainable alternative to petroleum-based bitumen)

- <u>Sources and Production:</u> It is produced from renewable sources such as: Vegetable oils, Crop stubble, Algae, Lignin (a component of wood), Animal manure
- Advantages & Benefits: Derived from renewable biological sources, bio-bitumen offers a sustainable option that reduces reliance on fossil fuels and lowers the carbon footprint associated with infrastructure projects (primarily for road construction and roofing materials).
- Challenges: Cost-competitiveness, Performance consistency, Large-scale production

Antarctica's Deep Winter Heatwave

Antarctica is experiencing a deep-winter heatwave, with temperatures up to 28°C higher than normal.

More About it:

- Record-breaking temperatures: Ground temperatures are averaging 10°C higher than normal since mid-July, with some days reaching up to 28°C above average.
 - ✓ In March 2022, during the austral winter, parts of East Antarctica experienced a sudden and dramatic rise in temperatures.
 - ✓ For example, at Concordia Station, which is situated at an altitude of over 3,200 meters, temperatures reached -12.2°C, a staggering 40°C higher than the norm for that time of year.
- Impact on East Antarctica from July 2024: This region, known for its extreme cold, is seeing temperatures between -25°C and -30°C instead of the usual -50°C to -60°C.
- Cause: The primary cause is a weakened polar vortex. This atmospheric phenomenon normally traps cold air over Antarctica. However, disruptions have allowed warm air to penetrate the region.
- Potential consequences: This heatwave could accelerate the melting of the Antarctic ice sheet, leading to rising sea levels and other climate-related impacts.
- Global Climate Feedback: Events like the deep winter heatwave in Antarctica have the potential to trigger feedback mechanisms that exacerbate global warming.
 - ✓ For example, the loss of reflective ice surfaces (albedo effect) can lead to more solar absorption by the ocean, further warming the planet.

Indian Ocean Structures - Indian Names

Three geographical structures located along the Southwest Indian Ridge in the Indian Ocean have been given names proposed by India.

More About it: Names are approved by the International Hydrographic Organization (IHO; located in Monaco) and UNESCO's IOC (Intergovernmental Oceanographic Commission).

Names given:

- 1. Ashoka Seamount (named after rulers of the Mauryan dynasty): Discovered in 2012 by the Russian vessel Akademik Nikolay Strakhov,
- 2. Chandragupt Ridge (named after rulers of the Mauryan dynasty): Discovered in 2020 by the Indian vessel MGS Sagar.
- 3. Kalpataru Ridge: Also discovered in 2012 by the same Russian vessel,
- ** Already Indian named structures: Raman Ridge, Panikkar Seamount, Sagar Kanya Seamount, DN Wadia Guyot

About IHO (International Hydrographic Organization - located in Monaco + establishment in 1921)

- IHO is an intergovernmental body responsible for supporting safe navigation and protecting the marine environment.
- The organization has 100 member states, including India.
- The IHO enjoys observer status at the United Nations, where it is the recognized competent authority on hydrographic surveying and nautical charting.

About UNESCO IOC- Headquartered at Paris, France

- It is dedicated to promoting international cooperation in marine sciences, improving management of the ocean, coasts, and marine resources.
- The IOC enables its 150 Member States, and India has been a member of this commission since 1946.
- The IOC is in charge of coordinating the United Nations Decade of Ocean Science for Sustainable Development 2021-2030, the "Ocean Decade".

Mass Wasting of Sedongpu Gully of Tibetan Plateau

Ecologist have raised concerns in a study regarding the high frequency of mass wasting events occurring in the Sedongpu Gully of the Tibetan Plateau in recent times.

Mass Wasting (mass movement or slope movement)

• It refers to the movement of soil, rock, and debris down slopes, often triggered by factors such as heavy rainfall, earthquakes, or human activities under the influence of gravity.

Sedongpu Gully (Gangtok district of Sikkim, India)

- The gully is characterized by its narrow, winding path, towering cliffs, and lush vegetation.
- It drains into the Yarlung Zangbo, or the Tsangpo River, near where it takes a sharp turn called the Great Bend while flowing around Mt. Namcha Barwa (altitude 7,782 metres) and Mt. Gyala Peri (7,294 metres) to create a gorge
- This is one of the deepest gorges on the earth. The Great Bend is close to Tibet's border with Arunachal Pradesh, where the Tsangpo flows as the Siang River.
- In Assam further downstream, the Siang meets the Dibang and Lohit to form the Brahmaputra, which flows as the Jamuna in Bangladesh.

Lightening and Electrocution

26 killed in 50 electrocution & Lightening incidents in Delhi over past year.

About Electrocution: It is a severe injury or death caused by electric shock, which occurs when an electrical current passes through the body.

Common Injuries: Burns, Cardiac arrest, Muscle damage, Neurological damage

Lightening: It is a natural electrical discharge that occurs between two electrically charged regions within the atmosphere or between the atmosphere and the ground. It's a common sight during thunderstorms, accompanied by thunder.

Types of Lightning

- Cloud-to-ground: The most common type, where the discharge occurs between a cloud & ground.
- Intra-cloud: Lightning that occurs within a single cloud.
- Cloud-to-air: Lightning occurs between two clouds.
- Ball lightning: A rare and mysterious phenomenon where a spherical ball of light appears and moves through the air.

Census: Comparative Population Trend analysis of Tiger, Leopard, Snow Leopard & Asiatic Elephant

Census Methodology: Camera traps, pugmark tracking, habitat assessment, genetic analysis etc

** Acronym: WII: Wildlife Institute of India and NTCA: National Tiger Conservation Authority

	Tiger	Leopard	Snow Leopard	Asiatic Elephant
IUCN Red List	Endangered	Vulnerable	Vulnerable	Endangered
Population Trends	Increasing (2018- 2022: 2,967 to 3,682)	Stable (2015-2020: 12,000-14,000)	Stable (2019- 2022: 718)	Stable (2018-2023: 27,312 to 32500)
Conducted by	WII + NTCA	WII + NTCA	WII + NTCA	WII + State Forest
State/UT with Highest Population	Madhya Pradesh	Madhya Pradesh	Ladakh	Karnataka

1. Sturgeon		 The WWF report documented many cases of illegal sturgeon fishing and trade affecting more than 1000 species in last 5years.
	Lanner,	These are the most endangered species group on earth.
	00	 Their existences have been around since the age of the dinosaurs.
		 Habitat: Freshwater, coastal waters and inner seas throughout Azerbaijan, Bulgaria, other European countries, North America etc.
		 Sturgeons are heavily exploited globally for their roe/eggs (caviar) and meat. This has led to a steep decline in populations worldwide.
2. Fin whale		 Japan has expanded its commercial whaling to include fin whales. Fin whale has sleek, streamlined bodies with V-shaped heads.
		 It is the second-largest whale species on earth, second only to the blue whale.
		 It is typically found in deep, offshore waters of all major oceans, primarily in temperate to polar latitudes. They are less common in the tropics.
		IUCN Status: Vulnerable
3. Four-ringed butterfly		 It has been rediscovered in India after 61 years according to a study published by the Bombay Natural History Society (BNHS).
		 It features dull brown-grey wings with distinctive yellow-ringed eye spots.
4.	Neelakurinji	Neelakurinji has been added to the IUCN Red List of threatened species.
		 It is a shrub found in the shola forests of the Western Ghats in Kerala, Karnataka, and Tamil Nadu.
		 It is known for its purplish-blue flowers.
		 This plant is famous for its unique blooming cycle, flowering once every 12 years.
		 The Paliyan tribal people of Tamil Nadu use the blooming of Neelakurinji to calculate their age.
5.	Malabar Tree	The population of the endemic Malabar Tree Toad (MTT) in India's Western Ghats may decline by 68.7% by 2080 due to climate change
		 Habitat: central to southern Western Ghats,
		IUCN Red List status: Endangered
		 It is active at night, feeding on insects and other small creatures, while during the day, it hides under leaves or in tree crevices to stay safe from predators and avoid drying out.

SCIENCE AND TECHNOLOGY

GROWTH-India Telescope

The GROWTH-India telescope (GIT) at Indian Astronomical Observatory in Ladakh captured a building sized asteroid as it approached closest to Earth.

About GIT (India's first fully robotic optical research telescope)

- It's a collaborative project between the Indian Institute of Astrophysics (IIA) and the Indian Institute of Technology Bombay (IITB), with support from the Department of Science and Technology (DST).
- Focus: Time-domain astronomy (studying rapidly changing celestial objects). This includes observing supernovae (exploding stars), gamma-ray bursts, kilonovae (associated with neutron star mergers) and near-earth asteroids
- Part of: Global Relay of Observatories Watching Transients Happen (GROWTH) network, a multi-national collaboration that includes the USA, Japan, Taiwan, Sweden, Israel etc.
- It joins The Himalayan Chandra Telescope (HCT) the gamma-ray array telescope (HAGAR), and the imaging Cherenkov telescope (MACE) at this site.

Retroviruses

Recent study found that retroviruses can integrate and reshape the genomes of the hosts they infect.

About Retroviruses

It is a type of virus that uses RNA as its genetic material instead of DNA. This is unusual because most other organisms use DNA as their genetic blueprint. These viruses are unique because they replicate in a host cell through a process called reverse transcription.

Types of Retroviruses

- **1. Oncoviruses:** These retroviruses are associated with cancer. They can activate or inactivate host genes involved in cell growth, leading to uncontrolled cell proliferation. Examples include the Human T-cell Leukemia Virus (HTLV).
- **2. Lentiviruses:** Lentiviruses cause slow-progressing diseases. The most well-known example is the Human Immunodeficiency Virus (HIV), which causes AIDS. Lentiviruses have a long incubation period and can integrate into non-dividing cells.

Working

- 1. Infection: The retrovirus enters a host cell.
- 2. Reverse Transcription: The virus uses an enzyme to convert its RNA into DNA.
- 3. Integration: The newly formed DNA integrates itself into the host cell's DNA. This is a key step, as it allows the virus to replicate itself when the host cell reproduces.
- 4. Replication: The host cell's machinery is used to produce viral proteins and RNA.
- 5. Assembly: New virus particles are assembled within the host cell.
- 6. Release: The new viruses are released from the host cell, ready to infect other cells.

Genetic Screening

Athletes worldwide turn to genetic screening to enhance their performance.

About Genetic Screening

- It is a process of testing a population for a specific genetic disease, mutations, or abnormalities to identify individuals who either have the disease or are at risk of developing it or passing it on to their offspring.
- On average, 66 percent of differences in athlete status can be explained by genetic factors, with the remaining shaped by environmental factors such as practice, nutrition, birthplace, and the availability of medical and social support.

Types of Genetic Screening

- 1. Newborn screening: This is conducted shortly after birth to detect treatable genetic disorders. Common Tests include Phenylketonuria (PKU), cystic fibrosis, congenital hypothyroidism.
- 2. Carrier screening: This identifies individuals who carry a gene for a recessive disorder but may not show symptoms themselves. (like sickle cell anemia, thalassemia)
- 3. Prenatal screening: This is offered to pregnant women to assess the risk of their fetus having certain genetic conditions. (Example: Down syndrome, trisomy 18, neural tube defects)
- 4. Predictive testing & Population Screening: This identifies individuals at increased risk of developing a genetic disease later in life.
- Importance: Early detection and treatment of diseases, Family planning decisions, Understanding genetic risks, Research and development of new treatments

Osmolyte

A recent study shows that osmolytes help proteins maintain their structure and function under stressful conditions and can help to treat Alzheimer's & Parkinson's.

About Osmolyte

- They are small organic molecules (built up in tissues) that play a crucial role in maintaining cellular homeostasis, especially in response to environmental stress.
 - ✓ Homeostasis is a state of balance among all the body systems needed for the body to survive and function correctly.
- They help proteins maintain their structure and function under stressful conditions
- They are essential for organisms living in conditions with varying osmotic pressures, such as marine organisms, desert plants, and even human kidneys.
- Examples: Amino acids (Glycine), Sugars and polyols (Glycerol, sorbitol), Methylamines (betaine, and sarcosine), Methyl sulfonium compounds
- Functions of Osmolytes: Osmotic balance; Protein stability; Viscosity regulation

Osmolytes and Disease protection

- 1. **Kidney Function:** In the renal medulla, where cells are exposed to high osmolarity. Osmolyte imbalances can contribute to kidney diseases and affect the kidneys' ability to concentrate urine.
- 2. **Neuroprotection:** In the brain, osmolytes such as myo-inositol and taurine help protect neurons from osmotic stress and contribute to cellular signaling.
- 3. **Cancer:** Altered osmolyte levels have been observed in some cancers, where they may contribute to the survival and proliferation of cancer cells in the tumor microenvironment.

Applications

1. Medicine: Developing drugs for conditions like neurodegenerative diseases where protein misfolding is a factor.

- 2. Biotechnology: Improving protein stability for industrial applications.
- 3. Agriculture: Enhancing crop resilience to drought and salinity.

Californium

Bihar Police have seized 50 grams of the highly radioactive metal Californium.

About Californium (synthetic, radioactive chemical element, Symbol: Cf and atomic number 98)

Key Characteristics: (Belongs to the actinide series of elements)

- 1. Highly radioactive: Emits neutrons, making it a potent radiation source.
- 2. **Rare and expensive**: Due to its synthetic nature and limited production. The production of californium is complex and costly due to the need for specialized facilities, long production times, and the handling of highly radioactive materials. As a result, only a few grams of californium are produced annually

Uses & Potential Applications:

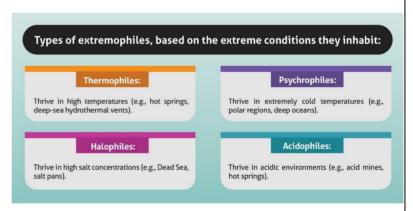
- 1. Neutron source: Its primary use is as a neutron source in portable metal detectors, oil well logging, and neutron activation analysis.
- 2. Research: Used in scientific research, particularly in nuclear physics.
- 3. Radiography: Californium-252 is used as a portable neutron source for radiography, enabling the non-destructive testing of materials and components.
- 4. Cancer Treatment: Californium-252 is used in brachytherapy, a form of radiation therapy where a radioactive source is placed close to or inside the tumor.

Extremophiles

Scientists found bacterial communities Extremophiles, living in microwave ovens that survive repeated rounds of radiation.

About Extremophiles (Life in Extreme Environments)

- They adaptation to extreme environments by incorporating unique biological and biochemical processes.
- These environments can include extreme temperatures, pH levels, salinity, pressure, or radiation.
- Extremophiles are predominantly microorganisms, particularly prokaryotes, but some eukaryotes also exhibit extremophilic properties.
- Applications: Understanding the limits of life, Industrial applications, Biotechnology



- 1. Extremophiles are used in bioremediation to clean up pollutants in extreme environments. Example: Acidophilic bacteria are used in bioleaching to extract metals from ores in mining.
- 2. Decomposers: Extremophiles contribute to the decomposition of organic matter in extreme environments, recycling nutrients and sustaining the ecosystem.
- 3. Industrial Enzymes: Enzymes from extremophiles (extremozymes) are used in industrial processes that require high temperatures, extreme pH levels, or other harsh conditions. Example: Taq polymerase, an enzyme from Thermus aquaticus, is used in PCR (Polymerase Chain Reaction) for DNA amplification.

Prokaryotes

Scientists have found that prokaryotes are resilient to climate change so they could increasingly dominate marine environments

About Research

- Prokaryotes make up 30% of oceanic life, playing a vital role in maintaining the balance of marine ecosystems.
- Prokaryote's ability to resilient to climate change could hinder the ocean's ability to absorb carbon emissions, exacerbating global warming.
- Their rapid growth also produces a significant amount of carbon—about 20 billion tonnes annually in the upper 200 meters of the ocean, which is double the carbon output of humans.
- If the amount of carbon produced by prokaryotes does increase as predicted, it could reduce the potential
 of oceans to absorb human emissions. This means achieving global net-zero emissions will become even
 more difficult.

About Prokaryotes (single-celled organisms lacking nucleus and membrane-bound organelles)

- These are the simplest and most ancient forms of life on Earth. They exhibit various shapes, such as cocci (spherical), bacilli (rod-shaped), and spirilla (spiral-shaped).
- They play a crucial role in the world's food chains, helping support the nutrient needs of fish, humans for catch and eat.

Types of Prokaryotes:

- 1. **Bacteria** are the most well-known group of prokaryotes. They can be found in every habitat on Earth, from soil & water to extreme environments like hot springs & deep-sea vents.
- 2. **Archaea:** Archaea are a distinct group of prokaryotes that are often found in extreme environments, such as high-temperature, high-salinity, or acidic conditions.
- <u>Nuclear Structure:</u> Prokaryotic cells do not have a nucleus to house their genetic material (DNA). Instead, the DNA is free-floating in the cytoplasm.
- Unlike eukaryotes, prokaryotes do not have specialized organelles such as mitochondria, endoplasmic reticulum, or Golgi apparatus.

Role of Prokaryotes in the Environment

- 1. **Decomposers:** Prokaryotes play a crucial role in decomposing dead organic matter, recycling nutrients back into ecosystems.
- 2. **Nitrogen Fixation:** Certain prokaryotes, such as Rhizobium, are involved in nitrogen fixation, converting atmospheric nitrogen into forms usable by plants.

Extra Mile: Comparison between Prokaryotes and Eukaryotes

Feature	Prokaryotes	Eukaryotes	
Nucleus	Absent (DNA material in Cytoplasm)	Present	
Examples	Bacteria, Archaea	Humans, Animals, Plants, Fungi, Protists	
Size	Smaller: Typically, 0.1–5.0 μm.	Larger: Typically, 10–100 μm.	
Cell Division	Binary fission: Asexual reproduction. (Example: Clostridium botulinum	Mitosis and Meiosis: For somatic and reproductive cells. (Sexual and asexual)	

Forever Chemicals

Researchers have found a method to be able to trace the origin and the destination of forever chemicals.

About Forever Chemicals

- It refers to a group of synthetic (man-made) compounds known as Per and Polyfluoroalkyl Substances (PFAS) which contaminate soil, water, and air.
 - ✓ PFAs are listed in the Stockholm Convention for persistent organic pollutants (POPs).
- They are called "forever chemicals" because they: Persist in the environment for hundreds of years, accumulate in living organisms (Bioaccumulation).
- PFAS are known for their strong carbon-fluorine bonds, which give them unique properties such as resistance to heat, water, oil, and stains
- PFAS have been widely used since the 1940s in various products, including: Non-stick cookware (Teflon),
 Food packaging, Clothing (waterproof, stain-resistant), Firefighting foam, Personal care products
- Health concerns: Cancer (testicular, kidney, thyroid), Reproductive issues (interference with body hormones), Immune system problems, Developmental issues, Liver damage
 - ✓ Recent research has also shown that prolonged, low-level exposure to certain PFAS can hinder the ability of humans to develop antibodies after vaccination against various diseases.
- Remediation efforts: Water treatment technologies, Soil remediation, FAS destruction technologies,
 Research into safer alternatives
 - ✓ In October 2022, European civil society organisations published the Ban PFAS manifesto calling for EU Member States and the Commission to urgently ban PFAS, the 'forever chemicals', in consumer products by 2025 and across all uses by 2030.

Dysbiosis

Study found that Dysbiosis can have severe and long-lasting effects on Human health

About Dysbiosis

- It refers to an imbalance in the composition of the microbiome (bacteria, viruses, fungi, and protozoa), which is the collection of microorganisms living in a particular environment, such as the human gut.
- This imbalance can disrupt normal functioning of microbiomes & lead to various health issues.
- Impact on health: Digestive disorders, Autoimmune diseases, Allergies, and mental health conditions. It also affects various "gut-organ axes," impacting the brain, liver, skin, and respiratory systems.
- Causes: antibiotic overuse, poor diet, stress, Lack of physical activity, poor sleep, and exposure to environmental toxins.
- Treatment and Management: Dietary Changes; Lifestyle Modifications; Judicious Use of Antibiotics; Hygiene and Sanitation etc.

Worlds First Thorium Molten Salt Nuclear Power Plant

China plans to start building the world's first molten salt reactor power station in the Gobi Desert.

More About Project and Technology

1. Thorium as fuel: Thorium itself is not fissile but can be converted into fissile uranium-233 in the reactor. While uranium reactors depend on solid fuels, thorium reactors use an environmentally safer (produces less radioactive waste) liquid fuel that operates at normal pressure.

- ✓ India's third stage nuclear power program is designed to use thorium to produce large scale power.

 Molten salt breeder reactors (MSBR) are another possible option for the third stage.
- 2. Molten salt coolant: Unlike traditional reactors that use water as a coolant, molten salt is used. This allows for higher operating temperatures and better heat transfer.
- **3.** Continuous fuel cycle: The reactor can operate continuously without refueling, increasing efficiency. (Operates at higher temperatures, leading to better energy conversion.)
 - ✓ Unlike uranium reactors, thorium reactors have a lower likelihood of catastrophic failures, thereby reducing the risk of accidents similar to those at Chernobyl or Fukushima.

Tribo-Electric Nanogenerator (TENG) technology

IIT Indore has designed state-of-the-art shoes using TENG technology specifically tailored for the armed forces.

About Triboelectric nanogenerators (TENGs)

- It harnesses the power of everyday mechanical energy and converts it into electricity through Operating principle of the triboelectric effect and electrostatic induction.
 - ✓ The triboelectric effect is the generation of static electricity by contact and separation of different materials.

Other Applications of TENGs:

- <u>Wearable Devices:</u> TENGs can be integrated into clothing or accessories to harvest energy from human motion (relatively simple to construct, requiring no complex manufacturing processes)
- <u>Biomedical Devices:</u> TENGs can be used in self-powered medical sensors or implants, eliminating the need for external power sources.
- **Environmental Monitoring:** TENGs can be deployed in remote or underwater locations to capture energy from waves, wind, or other natural movements for environmental sensors.

Sub-zero temperature batteries

The Council of Scientific and Industrial Research (CSIR) has developed Sub zero temperature batteries beneficial for defence forces and civilians in high-altitude regions.

Key features of the battery:

- Conventional batteries often experience reduced efficiency or even failure in sub-zero conditions. Batteries
 that can operate in sub-zero temperatures are important for critical applications in extremely cold
 environments.
- Durable cathode catalyst: The battery incorporates a robust catalyst that withstands extreme cold conditions. (With Hybrid cathode material: cobalt and iron alloys)
- Anti-freezing electrolyte: A specialized electrolyte prevents freezing, ensuring optimal battery performance in sub-zero environments. (With Zinc-air battery technology: high energy density)

Applications:

- **Space Exploration:** Sub-zero batteries are used in satellites, rovers, and space probes that must function in the cold vacuum of space or on planets with extremely low surface temperatures.
- **Aerospace:** Aircraft and drones operating at high altitudes or in polar regions rely on sub-zero temperature batteries to power their systems and ensure reliability.
- **Automotive:** Electric vehicles (EVs) in cold climates use sub-zero temperature batteries to maintain range and performance during winter months.

Super Blue Moon

A special astronomical event known as a "Super Blue Moon "occurred. This event combines two rare phenomena: a "blue moon" and a "super moon."

Blue Moon

- A blue moon is a relatively rare phenomenon that occurs when there are two full moons in a single calendar month
- While the moon doesn't actually turn blue in color, the term "blue moon" has come to symbolize something that happens infrequently or unexpectedly.
- The time it takes for the moon to orbit the Earth once is approximately 29.5 days. Most calendar months are 30 or 31 days long. If a full moon occurs near the beginning of a month, it's possible for a second full moon to occur before the end of the month.

Super Moon

• It is a term used to describe a full moon that occurs when the Moon is at its closest point to Earth (perigee). This proximity makes Moon appear slightly larger & brighter than usual in the night sky.

Hayflick Limit

Biomedical researcher Leonard Hayflick died at the age of 98, who discovered the Hayflick Limit.

About the Hayflick Limit

- It is a biological concept that suggests that normal human cells have a finite lifespan.
- Hayflick's discovery fundamentally changed the understanding of aging especially the thesis that cells
 are capable of being immortal, and aging is simply a factor of externalities such as disease, diet, and solar
 radiation.
- This means that there is an in-built cellular clock in the human body (and that of other organisms) which determines how long one can live.
- This "ultimate Hayflick limit", as scientists have termed it, is around 125 years for humans, beyond which no amount of diet, exercise, or even genetic tweaking against diseases can extend the human lifespan.

Key points of the Hayflick Limit

- Cellular Senescence: As cells divide and age, they accumulate damage, leading to a state known as cellular senescence. Senescent cells are unable to divide further.
 - ✓ Not all cells adhere to the Hayflick Limit. Germ cells (sperm and egg cells), stem cells, and cancer cells can divide indefinitely under the right conditions due to the presence of telomerase, which replenishes telomere length.
- Telomeres: Telomeres are protective caps on the ends of chromosomes. With each cell division, telomeres become shorter. When they become critically short, the cell can no longer divide and enters senescence.
- Limit on Cell Divisions: The Hayflick Limit is the maximum number of times a cell can divide before reaching senescence. This limit is typically around 50-60 divisions for human cells.

Quantum Nonlocality

A new study demonstrated that a universal standard for measuring and quantifying non-local quantum correlations is not possible.

Quantum nonlocality ("spooky action at a distance")

- It refers to the idea that particles can be entangled (meaning their quantum states are linked) in such a way that the state of one particle instantaneously affects the state of another, regardless of the distance between them.
- The effects of entanglement are not limited by the speed of light. This violates the principle of locality, which states that physical influences cannot travel faster than the speed of light.

Heaviest Antimatter

The heaviest antimatter particle, named antihyperhydrogen-4, was discovered at the Relativistic Heavy Ion Collider in New York.

About Anti hyper hydrogen-4

• A hypothetical antimatter atom composed of an antiproton and four antineutrons. It's essentially the antimatter counterpart of the helium-4 atom, which consists of two protons & two neutrons.

Potential applications of antihyperhydrogen-4

- Fundamental Physics: It could help scientists better understand the nature of matter and antimatter.
- Energy Production: Antimatter annihilation releases a massive amount of energy, which could potentially be harnessed for power generation.

Antimatter

- It is a type of matter composed of antiparticles, which have the same mass as ordinary matter particles but possess opposite electric charges
- The **key difference** between matter and antimatter lies in the charges of their particles. When matter and antimatter come into contact, they annihilate each other, releasing energy in the process. This process is governed by the same fundamental forces, but the charge reversal leads to the annihilation phenomenon.

BioE3 Policy

The Union Cabinet has approved the BioE3 Policy (Biotechnology for Economy, Environment, and Employment) to boost biotechnology manufacturing in India.

About BioE3 Policy

- The policy is aimed at 'Fostering High Performance Biomanufacturing' aligned with National initiatives such as 'Net Zero' carbon economy & Mission LiFE (Lifestyle for Environment).
- The policy covers six thematic areas; 1. Bio-based chemicals and enzymes; 2. Functional foods and Smart proteins; 3. Precision biotherapeutics; 4. Climate resilient agriculture; 5. Carbon capture and its utilization; 6. Futuristic marine and space research.

Key Objectives & Features

- Economic Growth: Promote biotechnology as a key driver of economic growth by fostering innovation, entrepreneurship, and job creation in the biotechnology sector.
 - ✓ India's bio economy skyrocketed from \$10 billion in 2014 to over \$130 billion in 2024, with projections to reach \$300 billion by 2030
- Environmental Sustainability: Utilize biotechnology to address environmental challenges such as pollution, climate change, and resource scarcity.
- Employment Opportunity (Social Development): Improve the quality of life of citizens by developing biotechnology-based solutions for healthcare, agriculture, and other sectors.

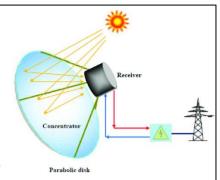
• Global Competitiveness: Enhance India's global competitiveness in the biotechnology sector through research, development, and commercialization of innovative products and technologies.

Solar Paraboloid Technology

As the world grapples with the urgent need to transition to renewable energy, solar paraboloid technology is emerging as a potentially transformative solution.

Solar Paraboloid Technology

- Solar Paraboloid Technology is a type of solar thermal energy technology that uses parabolic mirrors to concentrate sunlight onto a focal point, where the concentrated solar energy can be used to generate heat, electricity, or drive chemical processes.
- This technology is widely used in concentrated solar power (CSP) systems and has various applications in renewable energy generation.
- Another key benefit is its ability to operate at higher temperatures, up to 300°C, which significantly increases thermal efficiency.



Applications

- Solar Furnaces: For high-temperature applications like materials processing, research, and sterilization.
- Large-scale solar thermal power plants to Process Heat: For industrial applications, such as food processing and water heating.
- **Hydrogen Production: It** can be used in solar thermochemical processes to split water into hydrogen and oxygen, providing a sustainable way to produce hydrogen fuel.

CULTURE

Humayun's Tomb World Heritage Site Museum

- The Ministry of Culture inaugurated the country's first sunken museum at the Humayun's Tomb complex, a UNESCO World Heritage Site in Delhi.
- The museum, layout is inspired by the medieval 'baolis', or traditional water tanks.
- It also recreates the timeline of the construction of the 14th-century Nizamuddin Dargah complex in its neighbourhood.

Humayun's Tomb

- The tomb of Humayun, second Mughal Emperor of India, was built by his widow, Biga Begum (Hajji Begum), in 1569-70, 14 years after his death. The architect was Mirak Mirza Ghiyath.
- In 2007, the **Aga Khan Trust for Culture** worked on the restoration of the monument in partnership with the **Archaeological Survey of India**, as part of the urban renewal initiative.
- The tomb stands in an extremely significant archaeological setting, centred at the Shrine of the **14th century Sufi Saint, Hazrat Nizamuddin Auliya**.
- It was later used for the burial of various members of the ruling family and contains some 150 graves. Due to this, it is also described as the **necropolis of the Mughal dynasty** and the **dormitory of the Mughals**.
- Humanyun's garden tomb is an example of the char bagh style (a four quadrant garden with the four rivers of Quranic paradise represented), with pools joined by channels.
- It is also the first garden tomb on the Indian subcontinent and inspired several major architectural innovations, leading to the construction of the Taj Mahal.

Namdhari Sect

- Hundreds of followers of two rival groups of the Namdhari religious sect clashed violently in Rania in Haryana's Sirsa district.
- Namdhari sect was founded by **Satguru Ram Singh** on Baisakhi in 1857. He challenged the status quo, advocated social reform, and resisted the British Raj in various ways.
- The British imposed terrible punishments on the Namdharis and deported Ram Singh to Rangoon, from where he never returned.
- Namdhari Sikhs consider the Guru Granth Sahib as the Supreme Gurbani, but they also believe in a living human Guru.
- The Namdharis believe Ram Singh is still alive, and will return one day. Until then, they mourn his absence by wearing white.
- The Namdharis consider the cow to be sacred, they are teetotallers (no alcohol), and avoid even tea and coffee.
- The sect's headquarters is located in Ludhiana's Bhaini Sahib near village Raiyaan, where Ram Singh was born
- The sect has its deras across Punjab and Haryana, and has a presence in a few other countries, too.

Guru Padmasambhava

 International Buddhist Confederation, in collaboration with the Nava Nalanda Mahavihara recently organised a two-day International Conference on the Life and Living Legacy of Guru Padmasambhava at Nalanda, Bihar.

- The key themes of the conference included his life and teachings, his travels across the Himalayas and, most importantly, his relevance in the present time.
- Regarded as the second Buddha, Guru Padmasambhava (born from a Lotus), also known as Guru Rinpoche (Precious Guru), is the famous Rishi (or Sant) of the Himalayas, who lived in the eighth century in ancient India.
- He is known in Tibet as one of the founding fathers of Tibetan Buddhism, who appeared in Tibet in 749 AD and spent 54 years. Other two founders were Acharya Shanta Rakshita and prevalent King Thisong Deotsen.
- Tibetan Buddism is the Vajrayana (Tantric) form. Vajrayana is a form of Mahayana Buddhism that originated in northern India around the 5th century CE, took root in Tibet in the 7th and 8th centuries.
- One of the most respected figures in Buddha Dhamma, Guru Padmasambhava is credited with the spread of Buddha Dhamma across the Himalayan belt.
- He also represents a consolidation of many strands of culture ranging from Yogic and Tantric practices to meditation, art, music, dance, magic, folklore and religious teachings.

International Buddhist Confederation

- The International Buddhist Confederation (IBC) is a Buddhist umbrella body with its base in New Delhi that serves as a common platform for Buddhists worldwide.
- Established under the patronage of the supreme Buddhist religious hierarchy, IBC currently has a membership comprising more than 320 organisations in 39 countries

Guru Granth Sahib

- Two saroops or copies of the Guru Granth Sahib were recently returned to the Indian embassy in Doha, Qatar.
- The controversy arose after Qatari authorities confiscated two saroops of the holy book of the Sikhs from individuals accused of operating a religious establishment without their approval.

Saroop

- Saroop is a physical copy of Sri Guru Granth Sahib, **also called Bir in Punjabi**. Every Bir has 1,430 pages, which are referred to as **Ang**. The verses on every page remain the same.
- They believe that all the 10 Gurus were the same spirit in different bodies, and the Guru Granth Sahib is their eternal physical and spiritual form.
- It was the fifth Sikh master, **Guru Arjan Dev**, **who compiled the first Bir of the Guru Granth Sahib in 1604** and installed it at the Golden Temple in Amritsar. Baba Buddha was appointed the first Granthi of the Golden Temple.
- Later, the tenth Sikh master, Guru Gobind Singh, added verses penned by the ninth master, his father Guru Tegh Bahadur, and compiled the Bir for the second and last time. It was in 1708 that Guru Gobind Singh declared the Guru Granth Sahib the living Guru of the Sikhs.
- Guru Granth Sahib is a collection of hymns written by six Sikh gurus, 15 saints, including Bhagat Kabir, Bhagat
 Ravidas, Sheikh Farid and Bhagat Namdev, 11 Bhatts (balladeers) and four Sikhs. The verses are composed in
 31 ragas.
- It is written in **Gurmukhi**. This is the script the Punjabi language is written in.
- Gurdwaras have a separate resting place for the Saroop, called 'Sukh Asan Sthan' or 'Sachkhand' where the Guru rests at night.
- This takes place at the end of the day when the holy book is ceremoniously shut and rested. In the morning, the saroop is again installed in a ceremony called 'prakash'.

World's Oldest Calendar Discovered

- Archaeologists at Gobekli Tepe, an ancient site in Turkey, have discovered the world's oldest calendar, dating back nearly 13.000 years.
- Gobekli Tepe, often referred to as the world's first temple, features a series of large stone pillars with elaborate carvings.
- The carvings on the pillars include a series of V-shaped symbols, each representing a single day. By counting these symbols, researchers identified a calendar of 365 days, divided into 12 lunar months with an additional 11 days.
- This system aligns closely with the modern solar calendar, indicating a sophisticated understanding of astronomy by the ancient people who created it.
- One of the most fascinating aspects of this discovery is the depiction of the summer solstice. A V-shaped symbol worn around the neck of a bird-like figure is believed to represent this significant astronomical event.
- The carvings also include representations of both the sun and the moon, indicating a combined solar and lunar calendar.
- The discovery of this ancient calendar throws new light on the capabilities of early human societies. It suggests that the people of Gobekli Tepe had a sophisticated understanding of astronomy and timekeeping long before the development of written language.
- This challenges previous assumptions about the timeline of human technological and intellectual
 development. The calendar at Gobekli Tepe predates other known calendars by several millennia, making it
 a significant find in the history of human civilization.
- The site of Göbekli Tepe itself is a marvel of ancient engineering and artistry. Built by hunter-gatherers between 9,600 and 8,200 BCE, it predates Stonehenge by more than 6,000 years.
- The exact purpose of Gobekli Tepe has long been debated, but many believe it was used for ritualistic or ceremonial purposes.

PERSONS IN NEWS/AWARDS

RESET Programme

- The Ministry of Youth Affairs and Sports launched the Retired Sportsperson Empowerment Training (RESET) Programme on the occasion of National Sports Day.
- RESET Programme is aimed at empowering the country's retired sportspersons.
- The programme will support retired athletes on their career development journey by empowering them with the necessary knowledge and skills and making them more employable.
- The programme would bridge a generational gap by ensuring that the unique skills of retired athletes benefit aspiring athletes.
- Their rich experience will serve as a foundation for nurturing future champions, contributing to the growth of sports in India.
- The programme is open to athletes in the 20-50 age brackets, who have won international medals, participated in international events, or earned national or state-level distinctions recognised by the National Sports Federations, Indian Olympic Association, or the Ministry of Youth Affairs and Sports.
- Initially, the programme will be of two levels based on educational qualifications, one level is Class 12th and above and another is Class 11th and below.
- The programme will be offered in a hybrid format, combining self-paced learning via online portal with onground training and internships.
- Internships will be provided in sports organisations, competitions, training camps, and leagues. Successful participants will receive placement assistance and guidance for entrepreneurial ventures.
- The pilot phase of the programme will be implemented by the Lakshmibai National Institute of Physical Education (LNIPE).

National Sports Day

- National Sports Day celebrated annually in India, honours the birth anniversary of Major Dhyan Chand (August 29), one of the greatest field hockey players in history.
- It aims to inspire individuals of all ages to participate in physical activities, cultivate and promote a sports culture, and honour the achievements of athletes.
- Singh started his hockey career with the British Indian Army regimental team.
- Famously known as the "Wizard of Hockey" and "The Magician", Dhyan Chand played a key role in India's first hat-trick of Olympic gold medals, winning at the 1928, 1932, and 1936 Summer Olympics.
- Retiring as a Major in the Punjab Regiment of the Indian Army in 1956, he received the Padma Bhushan, the third-highest civilian award.
- The country's highest sports honour is the Major Dhyan Chand Khel Ratna Award.

New Chairman of Railway Board

- The Appointments Committee of the Cabinet (ACC) approved the appointment of **Satish Kumar** as the Chairman and CEO of Railway Board.
- Mr. Kumar will replace Miss Jaya Verma Sinha, who has now been appointed as administrative member of Central Administrative Tribunal (CAT). Ms. Sinha was the first lady Chairperson of the Railway Board.
- The Railway Board was **established in 1905**. It serves as the **apex body of the Indian Railways** and reports to the parliament through the Ministry of Railways.

• It is **headed by the Chairman and CEO**, who is the administrative and operational head of the Indian Railways.

International Tennis Hall of Fame

- Former Indian tennis players **Leander Paes and Vijay Amritraj** have been inducted into the International Tennis Hall of Fame (ITHF).
- Paes was inducted in the Player category and Amritraj was recognised under the Contributor category.
- With this, Paes and Amritraj became the first Asian men to be inducted into the ITHF.
- Veteran British journalist **Richard Evans** was the other inductee into the Hall of Fame at the event.
- Paes won the men's single bronze at the **1996 Atlanta Olympic Games**. He has won 18 Grand Slam titles eight in men's doubles and 10 in mixed doubles.
- He is one of the only three men in tennis history to achieve career Grand Slams in both men's and mixed doubles.
- Located in **New Port, Rhode Island, United States**, ITHF is a prestigious institution and museum dedicated to the sport of tennis. It honours both players and other contributors to the sport of tennis.
- It is a **non-profit organization**, with the goal of preserving, celebrating and inspiring the sport of tennis around the world.

Rashtriya Vigyan Puraskar

- The President of India recently presented the **first edition** of Rashtriya Vigyan Puraskar 2024.
- 33 awards were presented to distinguished scientists in **four categories Vigyan Ratna, Vigyan Shri, Vigyan Yuva, and Vigyan Team**.
- These new sets of awards Rashtriya Vigyan Puraskar were instituted last year by the government after scrapping all existing science awards.
- Vigyan Ratna award given to recognise lifetime achievements and contributions made in any field of
 science and technology. This year it was presented to Prof. Govindarajan Padmanabhan, a pioneer of
 molecular biology and biotechnology research in India.
- **Vigyan Shri** award given to recognise **distinguished contributions** in any field of science and technology. It was presented to **13 scientists** for their path-breaking research in their respective domains.
- **Vigyan Yuva Shanti Swarup Bhatnagar (VY-SSB)** award given to recognise and encourage young scientists who make an exceptional contribution in any field of science and technology.
- It was given to **18 scientists** for their significant contribution in areas for the study of warming of the Indian Ocean and its consequences, to the development of indigenous 5G base station and communication and precision tests of quantum mechanics.
- **Vigyan Team** awarded to a team comprising of three or more scientists / researchers / innovators who have made an exceptional contribution working in a team, in any field of science and technology.
- It was given to the **team of Chandrayaan-3** for the successful landing of Chandrayaan-3 lander near the south pole of the moon.

Olympics 2024

• The **2024 Summer Olympics**, officially the **Games of the XXXIII Olympiad** and branded as **Paris 2024**, was recently held in France.

- The Olympic Games are considered the world's foremost sports competition. Athletes from the territories of 206 National Olympic Committees and the IOC Refugee Olympic Team took part at the Olympic Games 2024.
- The 2024 Olympics featured a total of 329 medal events across 32 diverse sports.
- An **Olympic sport** is defined as a competitive athletic activity recognized by the International Olympic Committee (IOC) and governed by an international sports federation.
- The first written evidence of the official Games dates from 776 BC, when the Greeks began measuring time
 in Olympiads, or the duration between each edition of the Olympic Games. The games were held in the
 honour of the God Zeus.
- In **393 AD**, the **Roman Emperor Theodosius I banned the Olympic Games** for religious reasons, claiming that they encouraged paganism. They were not revived until the modern era.
- In 1894, **Pierre de Coubertin** launched his plan to revive the Olympic Games, and founded the International Olympic Committee (IOC) in 1894, leading to the **first modern Games in Athens in 1896**.

India's performance at Paris Olympics

- In all, India won six medals a silver and five bronze at the Paris Olympics.
- Manu Bhaker won the Bronze medal in the women's 10m pistol shooting. With this, Manu Bhaker became the first Indian woman to win an Olympic shooting medal.
- Manu Bhaker then created history by becoming the first Indian to win two medals at a single edition of the Olympics, by winning the Bronze medal with Sarabjot Singh in mixed team 10m pistol shooting.
- Swapnil Kusale won a Bronze medal in men's 50m air rifle 3 positions shooting.
- India men's hockey team won the Bronze medal in field hockey.
- Neeraj Chopra won the Silver medal in men's javelin throw.