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CURRENT AFFAIRS MAGAZINE
JANUARY 2025

News Analysis

"SUCCESS IS THE SUM OF SMALL EFFORTS, REPEATED DAY IN AND DAY OUT"- ROBERT COLLIER

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JANUARY 2025

1. IMPORTANT TOPICS OF THE MONTH

1.1   Evolution of the Maha Kumbh Mela

Why in News?

Maha Kumbh Mela is scheduled to be held in Prayagraj from January 13 to February 26, 2025.

What is Maha Kumbh Mela?

- **Kumbh Melas**- It is the is a major pilgrimage and congregation festival in Hinduism held every three years with a 12-year cycle for the Maha Kumbh.

- **Origin** - 8th century Hindu philosopher Adi Shankaracharya promoted regular gatherings of spiritual leaders and ascetics, and also instituted the monastery system and the 13 akharas (warrior-saint sects).

- **Location**- They commence along the riverbanks in Haridwar, then Ujjain, Nashik and culminating with the Maha Kumbh in Prayagraj.

- **Ardh Kumbh**- It is celebrated at the six-year mark in Haridwar and Prayagraj.

- **Dates of the event** – They are decided based on the movements of the moon, sun and Jupiter as recorded in the Hindu calendar.

- **Story of the 4 sites** - According to Hindu legend, Lord Vishnu, in the guise of Mohini, carried the pot of amrit (nectar) during the Samudra Manthan (churning of the ocean).

- Then, a scuffle ensued leading to four drops falling at Prayagraj, Haridwar, Nashik and Ujjain – creating four Tirthas (holy sites).

- **Belief** - Devotees believe that a dip in the rivers flowing through these Tirthas

    o   Ujjain – Narmada

    o   Nashik – Godavari

    o   Haridwar – Ganga

    o   Sangam at Prayagraj - the confluence points of rivers Ganga, Yamuna and the mythical Saraswati) will lead to salvation.

> *Allahabad was officially renamed as Prayagraj in 2018.*

- **Shahi Snan** - Since the eighth century, a large gathering of sadhus from various akharas have been seen at Prayagraj to perform the Shahi Snan (holy dip) at a stipulated time on auspicious days.

> *Naga sadhus are ascetics who smear ashes over their naked bodies and sport weapons like tridents, swords, and lances, as well as conches and drums.*

- **Traditioanl procession** - Led by the Naga Sadhus, the sadhus from various akharas hold traditional processions to the river for bathing.

13 Akharas			
Shaivite akharas	**Vairagi akharas**	**Udasin Akharas**	**Nirmala Akhara**
1. Atal 2. Anand 3. Agni 4. Awahan 5. Juna 6. Niranjani 7. Nirvani	8. Digambar Ani 9. Nirvani Ani 10. Nirmohi	11. Naya 12. Bada	13. Nirmala Akhara

14. In 2019, a 14th sect, the Kinnar Akhara — a group of 15-20 transgender saints with Mahamandaleshwars (chief monks) from Rajasthan, Uttar Pradesh, Madhya Pradesh, West Bengal, Assam, Tamil Nadu, Odisha, Maharashtra and others were included in the Shahi Snan order.

- **Organization** - From the 9th to the 18th centuries, Akharas organised the month-long Kumbh festivities.

- **Clashes** - Several violent clashes occured between akharas over this hierarchy, even resulting in fatalities.

- **Institutionalization** - While the order is still decided by the akharas, it has been institutionalised by authorities.

- During the Shahi Snan, the Mahamandaleshwars (chief monks) of the akharas, seated on guilded chariots, palanquins, elephants, and/or horses lead the Shahi Snan.

- General devotees participate in the holy dip on any of the auspicious days during the month-long Kumbh festival.

How the Kumbh Mela was managed during British rule?

- **Impact of British** - With the arrival of the British on Indian shores, control over and logistics pertaining to the event transferred to the colonial administration.

> *The **first reference** to the Kumbh Mela by the British was in an 1868 report which said a 'Coomb Mela' was to be held in Allahabad in 1870, for which logistic support and sanitation facilities were sought.*

- **Freedom movement** - During the British Raj, the festival saw a large gathering of citizens from all walks of life apart from the sadhus, and it was used to galvanise support for the freedom movement.

- Mahatma Gandhi participated in the Maha Kumbh mela in 1918 and interacted with other attendees.

- **Imposition of pilgrim tax** – British imposed tax on pilgrims for during Kumbh mela.

- **Rapid expansion of railway infrastructure** – It facilitated more people from across the Indian sub-continent to participate in the mela.

- **Institutionalisation of the Shahi snan** – With the involvement of British in administering the kumbh mela in preparation of housing, sanitation, and food facilities for the pilgrims and policing, government became one of the organizers of the event.

How has it changed after independence?

- **Post-independence**- The first Maha Kumbh Mela organised by Indian authorities after Independence was in January 1954.

- **Initial hurdle -** Despite prior planning, the Army and Public Works Department faced the hurdle of constructing and maintaining five new pontoon bridges over the constantly changing course of the Ganga.

- **1966 Kumbh** - Over seven lakh pilgrims took the holy dip on Magha Purnima – the 5th important bathing day.

- **1977 Kumbh** - It marked the completion of 12 Kumbh Mela cycles –i.e. 144 years, and was also unique as the flow of the river Ganga in two streams had created two 'sangams' (confluences).

- **During Emergency** - Fourteen bridges on the two streams of Ganga were erected, as one crore people gathered in Prayagraj, creating a world record for the largest crowd gathering.

- **1989 Kumbh** - The Kumbh area was expanded to 3,000 acres, with more pontoon bridges fabricated by the Army over the Ganga.

- **Millenium Kumbh** - In 2001, U.P. government commissioning Aastha Television Channel and Doordarsan have broadcasted the Kumbh mela event.

- **Satellite capture** - India's remote sensing satellite (IRS-ID) captured the landscape of the Kumbh area, including the confluence of the two rivers Ganga and Yamuna.

- **Security arrangements** – Deployment of security personnel, air surveillance, monitoring militant and terrorist activities were arranged to hold the event safely.

What are the Political links and features of the Kumbh?

- **IEC campaign** – During 1977, Information about Prime Minister's 20-point programme and Sanjay Gandhi's five-point programme were broadcasted.

- **Social reform** - A special conference of the Bharat Sadhu Samaj was held with government participation in 1977 urging them to remove superstitions among people to aid the country's progress.

- **Implementation of government program** - Conference passed a resolution favouring the government's programme targeted to alleviate poverty by providing basic amenities like food, clothing, education, and shelter.

- **Political campaign** - In 1989, the Vishwa Hindu Parishad (VHP) capitalised on the increase in the number of visitors, unveiling the blueprint of the proposed Ram Mandir in Ayodhya at its annual religious conference.

- **Inclusivity** - In 2013, 100 women manual scavengers took a dip in the Sangam and later shared a meal with 150 priests from the akharas.

- **2014 Election** – The Kumbhmela ground was used by political parties to propagate their election agenda.

- **2019 Kumbh** - Kinnar Akhara were included in the Shahi Snan.

- **Swachh Bharat** - 10,000 sanitation workers who worked in keeping Kumbh premises clean were felicitated by Prime Minister at a public event.

- **Clean Ganga** - Ganga remained clean throughout the Kumbh with new sewage treatment plants, the use of bio-filters, and the temporary shuttering of polluting industries in Kanpur.

What are the challenges in organizing Kumbh mela?

- **Fire accidents** – In 1954, some huts were burnt down in Kumbh Nagar after a cooking mishap, leaving pilgrims stranded and injured.

- **Stampede** – The crores of people visiting the kumbh, makes it highly vulnerable to stampede if left unorganized.

- **Traffic** – High inflow of pilgrims jams the entire traffic network, making the city paralyzed.

- **VIP guests** – Arrival of personalities divert the security forces and further attract crowd to particular focus point, increasing the disaster risk.

- **Overcrowding** – High concentration of people in bathing areas, on the pontoon bridges, causes panic and trampling.

- **Infrastructure failures** – City infrastructures were constructed for normal population and footfalls.

- Sudden onset of high usage collapses the infrastructures like bridges, transportation systems.

How has the current year's kumbh been planned?

- **New district** - The U.P. government has declared the event's area as a new district - the Mahakumbh Mela District.

- **Public personnel regulation** – It has invoked the Essential Services Maintenance Act (ESMA) to ban strikes by government employees in all State government departments and corporations for six months.

- **Combat fake news** - It has also roped in social media influencers and college students as "digital warriors" to combat the circulation of fake news about the event.

- **Use of AI -** Security will be aided by Artificial Intelligence (AI)-enabled cameras and drones to surveil the area for rogue drones or militants and search for missing persons.

- **Headcount tracking** - The government will use person attribute search cameras, Radio Frequency Identification (RFID) wristbands and mobile app tracking to track the headcount of pilgrims.

1.2	Ideologies and Vision of Swami Vivekananda

Why in News?

Swami Vivekananda Jayanti, also known as National Youth Day since 1984 is celebrated annually on January 12, 2025 to marks his birth anniversary.

What is practical Vedanta of Vivekananda?

Early Life of Swami Vivekananda
• **Birth date** - January 12, 1863. • **Birth name** - Narendra Nath Datta. • **Life span** – 39 years (1863-1902).

- **Guru** - _Ramakrishna Paramahamsa_ of Bengal, who was introduced in 1881 by Keshab Chandra Sen, the founder of Brahmo Samaj of India where Vivekananda stayed.

- **After Ramakrishna's death** – He devoted his life to the _regeneration of Hindu society_.

- He sought to _reconcile the dualistic philosophy_ he inherited from his master with his belief in Advaita philosophy.

- He believed in the supreme authority of Vedas and the immutable status of Upanishads.

- For him, Vedic religion was both universal and tolerant.

- **Need for a change** - He was of the view that the truths of Vedanta have little appeal for people suffering from hunger and poverty and which led him to introduce his version of practical Vedanta.

- **Practical Vedanta** – It harmonised seemingly incompatible philosophies, including dualism and monism.
    - **Aim** - To integrate devotion to God with compassion for fellow beings.

- **Prioritised the alleviation of poverty** - He found it futile, insulting, and meaningless to preach scriptures without providing food to people suffering from poverty.

- **Social service** – Inspired by his master's words that religion is not for empty stomachs, he emphasised the significance of social service.

> _Vivekananda returned to India in 1897 and went on to establish **Ramakrishna Mission (1897)**, which primarily worked through social service and preaching. In 1899, he established the Belur Math in Howrah, West Bengal, which became his permanent abode._

How he revived Hinduism?

- Vivekananda's address at the _World Parliament of Religions in Chicago on September 11, 1893_ marked a turning point in the universal assertion of Hindu identity.

- He presented a liberal and humane Hinduism as the path towards progress and unity.

- **Stated the antiquity of Hinduism** - He referred to **Hinduism as the "mother of religions"**, and asserted its legacy of tolerance and universal acceptance.

- **Projected quality of tolerance** – He reiterated that _tolerance is the core of Hinduism_.

- He highlighted Hinduism's historic role in _offering refuge to persecuted sects_ from around the world and affirmed that this sense of tolerance is intrinsic to the "blood of the nation".

- **Interdependence of Hinduism and Buddhism** – He said that "Hinduism cannot live without Buddhism, nor Buddhism without Hinduism.

- Buddhists cannot stand without the brain and philosophy of the Brahmins, nor the Brahmin without the heart of the Buddhist.

What are the various tenets proposed by him?

- **Promoted secularism** – He outrightly _rejected fanatism, sectarianism, and bigotry_ that led to violence.

- He argued that ridiculing another's God was tantamount to ridiculing one's own religion.

- **Idea of oneness** – This idea of his stemmed from the _ideals of Vedanta and monism_, which affirm the unity of all existence.

- **Feed the hunger** - Vivekananda preferred to feed the hungry before preaching about God.

- In his Chicago speech in 1983, he also criticised Christian missionaries for prioritising the construction of churches over addressing the plight of the starving.

> _Vivekananda stated, "I do not believe in God or religion which cannot wipe the widow's tears or bring a piece of bread to the orphan's mouth."_

- **Promotes unity** – He expressed regret for those who envisioned the exclusive survival of their religion, saying that _true religion embraces unity in diversity_.

What is Vivekananda's idea of India's nationalism?

- **Nationalism** – He criticised modern material civilization and _asserted the cultural roots of nationalism_ in India.

- It is because of its spiritual foundation, Indian civilization survived the test of time, unlike the Greek, Roman, and Egyptian civilizations.

- **Idea of centre** – He argued that every nation has a centre and its survival depends on preserving this core.

- He found *religion as the centre of India*.

- **Centre of the world's spirituality** – He urged to begin a wave of spirituality to rejuvenate the nation.

- **Vedantic spiritualism** – He viewed it as the *solution to India's subjugation* and the means to saving humanity from the destructive effects of Western materialism.

> In The Discovery of India, Jawaharlal Nehru wrote that Vivekananda "came as a tonic to the depressed and demoralized Hindu mind."

How his spiritual nationalism helped in freedom struggle?

- **Inculcated nationalism** – By the 19th century, Hindu mysticism and spirituality played a dominant role in inculcating a sense of national spirit among the masses.

- Vivekananda emerged as one of its earliest and vocal exponents.

- **Influenced leaders** - Bal Gangadhar Tilak, Subhas Chandra Bose, and Mahatma Gandhi got influenced with this idea during India's national movement.

What are the attributes he emphasised for the youth?

- He emphasised that to regenerate the nation, it's important to *overcome physical weakness and embrace masculine qualities* like courage, strength, and resilience.

- **Focus on physical strength** – He argued that the *first step toward national regeneration* was strengthening the body.

- He justified the use of physical force in self-defense, stressing the importance of fighting against oppression.

- **Emphasis on sports** – He believed that the young would be closer to heaven *through football* than reading the Gita.

> His historic clarion call to "**arise, awake, and stop not** till the goal is reached" inspired Indian leaders to awaken colonial India from its long slumber.

- **Ascetic nationalist masculinity** – It is a combination of physical strength with spiritual discipline.

- He urged his disciples to be ready to engage in deep meditation and rise from it to go to the field.

  - **Physical vigour** – symbolised by biceps
  - **Gita** – Way to overcome challenges posed by British rule in India.

Quick Facts

Top Quotes of Swami Vivekananda
• We are what our thoughts have made us; so take care about what you think. Words are secondary. Thoughts live; they travel far.
• Arise! Awake! And stop not until the goal is reached.
• The whole secret of existence is to have no fear. Never fear what will become of you, depend on no one. Only the moment you reject all help are you freed.
• The world is the great gymnasium where we come to make ourselves strong.
• The moment I have realized God sitting in the temple of every human body, the moment I stand in reverence before every human being and see God in him - that moment I am free from bondage, everything that binds vanishes, and I am free.
• External nature is only internal nature writ large.
• When an idea exclusively occupies the mind, it is transformed into an actual physical or mental state.
• Our duty is to encourage everyone in his struggle to live up to his own highest idea, and strive at the same time to make the ideal as near as possible to the Truth.
• The Vedanta recognizes no sin it only recognizes error. And the greatest error, says the Vedanta is to say that you are weak, that you are a sinner, a miserable creature, and that you have no power and you cannot do this and that.

1.3   Assessment of National Health Mission

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Why in News?

Recently Union cabinet has approved the extension of National Health Mission for another 5 years.

What is National Health Mission (NHM)?

- **NRHM** - National Rural Health Mission was launched in **2005** to build public health systems to provide accessible, affordable and quality health care to the rural population.

- **NUHM** - In **2012**, the National Urban Health Mission (NUHM) was conceptualized.

- **NHM** - NRHM was rechristened as the National Health Mission (NHM) with the two Sub Missions viz. the NRHM and the NUHM.

- **1st Extension** - Continuation of the National Health Mission-with effect from 1st April 2017 to 31st March 2020 was approved by Cabinet in 2018.

- **2nd Extension** - Ministry of Finance in 2020 has accorded interim extension of NHM for a period up to 31st March 2021 or till the date the recommendation of 15th Finance Commissions come into effect, whichever is earlier.

Institutional Framework

- **3rd Extension** – In 2022, Ministry of Finance has further accorded the approval for continuation of National Health Mission from 01.04.2021 to 31.03.**2026** or till further review.

- **Implementation** - Ministry of Health and Family Welfare under NHM provides financial and technical support to States / Union Territories (UTs) enabling them to provide accessible, affordable, accountable, and effective healthcare upto District Hospitals (DHs).

- **Bride the rural urban gap** – Addressing gap in rural healthcare services through improved health infrastructure, augmentation of human resource and improved service delivery.

- **Decentralization of programme** - NHM is decentralized to district level to facilitate need-based interventions, improve intra and inter-sectoral convergence and effective utilization of resources.

NHM Components
RMNCAH+N
Health Systems Strengthening
Non Communicable Disease Control Programmes
Communicable Disease Control Programme
Infrastructure Maintenance
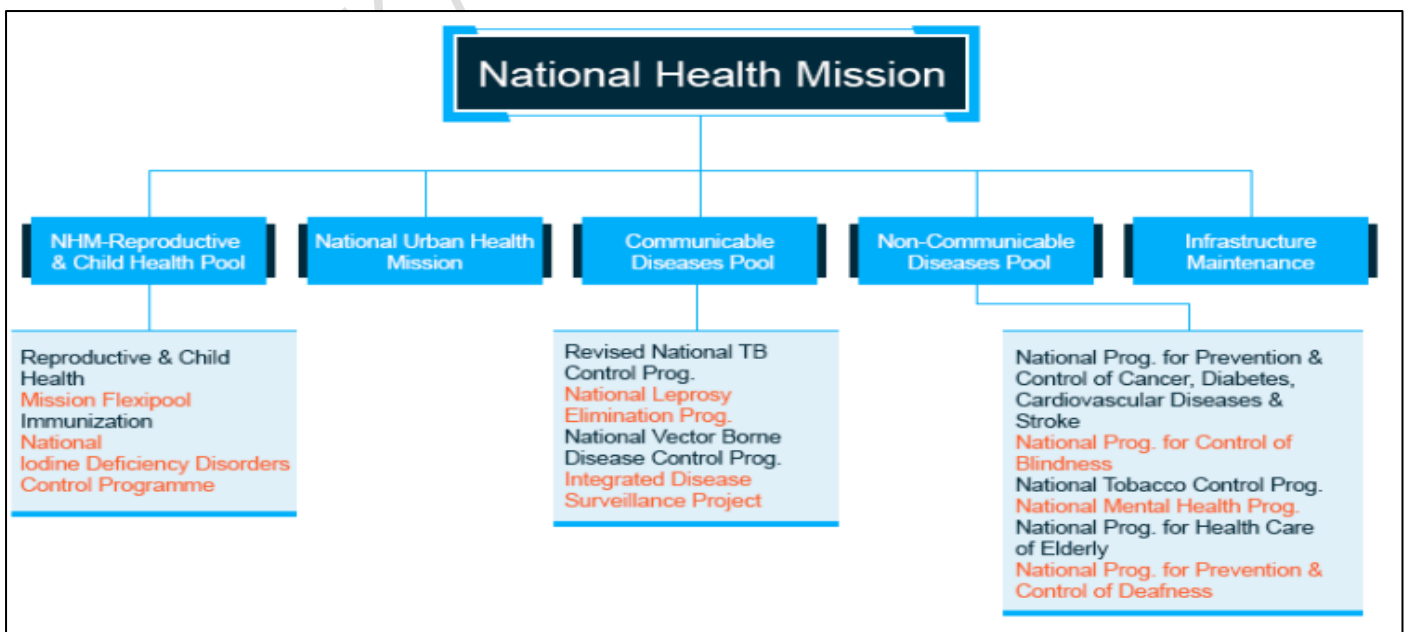
What are the achievements of National Health Mission (NHM)?

- **Improvement in health outcomes**

  o MMR declined by 83% since 1990, which is higher than the global decline of 45%.

  o 75% in the reduction of Under 5 Mortality Rate in comparison to the global reduction of 60% since 1990.

  o Infant Mortality Rate (IMR) has fallen from 39 per 1,000 live births in 2014 to 28 in 2020.

  o Total Fertility Rate (TFR) decreased from 2.3 in 2015 to 2.0 in 2020.

> *The Maternal Mortality Ratio (MMR) has declined significantly from 130 per lakh live births in 2014-16 to 97 per lakh in 2018-20.*

> *Under-5 Mortality Rate (U5MR) has decreased from 45 per 1,000 live births in 2014 to 32 in 2020.*

- **Disease control** - TB incidence reduced from 237 per 1,00,000 population in 2015 to 195 in 2023.

  o TB mortality rate decreased from 28 to 22 from 2015 to 2023.

  o National Sickle Cell Anemia Elimination Mission screens over 2.61 Crore Individuals.

  o Kala Azar Elimination targets successfully met.

  o In 2021, Malaria cases and deaths have declined by 13.28% and 3.22% respectively as compared to 2020.

  o The Measles-Rubella Elimination Campaign, under the Intensified Mission Indradhanush (IMI) 5.0, vaccinated over 34.77 crore children, achieving a 97.98% coverage.

> *1.56 lakh Ni-kshay Mitra volunteers are supporting over 9.4 lakh TB patients under the Pradhan Mantri TB Mukt Bharat Abhiyan.*

> *Kala-azar elimination efforts have been successful, with 100% of endemic blocks achieving the target of less than one case per 10,000 population by the end of 2023.*

INDIA LEADS IN TB CASE DECLINE — 237 PER LAKH (2015), 17.7% DECLINE, 195 PER LAKH (2023). *As per WHO Global TB Report 2024

- **Expansion in healthcare human resources** - NHM engaged over 12 lakh additional healthcare workers between FY 2021-24.

- **Covid management** - India COVID-19 Emergency Response and Health Systems Preparedness Package (ECRP), implemented under NHM in two phases, helped further bolster the healthcare system to effectively manage the pandemic.

- **Institutional capacity development** - Ayushman Arogya Mandir Centers reach 1.72 Lakh mark by FY 2023-24.
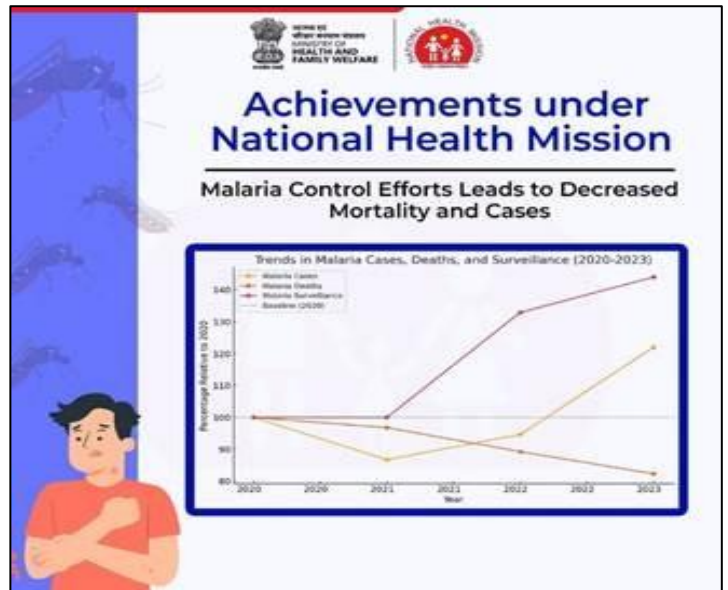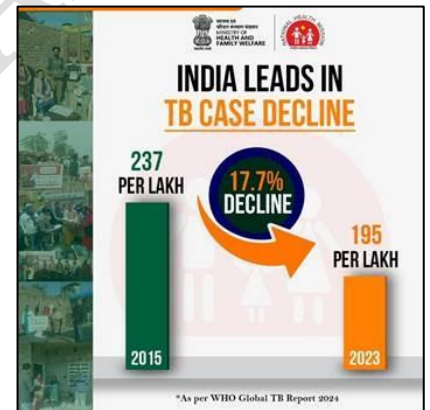
- **Vaccination** - India's Universal Immunization Programme (UIP) is a part of the Reproductive and Child Health (RCH) Program under National Health Mission (NHM).

  o India achieved 97.98% coverage in measles-rubella vaccination campaign.

  o 220 Crore Covid-19 vaccine doses administered nationwide under NHM.

- **U-WIN Platform** - Launched in January 2023 , It ensures the timely administration of vaccines to pregnant women, infants, and children across India.

- **Dialysis** - Pradhan Mantri National Dialysis Programme has benefited over 4.53 lakh dialysis patients in FY 2023-24.

- **Quality improvement** - NHM has also focused on strengthening healthcare infrastructure, including the certification of public health facilities under the National Quality Assurance Standards (NQAS).

- **Improving emergency services** - By March 2024, 12,348 PHCs had been converted to 24x7 services, and 3,133 First Referral Units (FRUs) were operational across the country.

- Additionally, the fleet of mobile medical units (MMUs) has also expanded.

- **Health campaigns** - Through sustained public awareness campaigns and enforcement of tobacco control laws, NHM has contributed to a 17.3% reduction in tobacco use over the past decade.

- National Action Plan for Snakebite Envenoming (NAPSE) was launched in 2022 , with efforts focused on prevention, education, and management of snakebites

> *By the end of FY 2023-24, the platform had expanded to 65 districts across 36 States/UTs, ensuring real-time vaccination tracking and improving immunization coverage.*

> *As of March 2024, 7,998 public health facilities have been certified, with over 4,200 of them receiving national certification.*

Achievements under National Health Mission

A Milestone in Improving India's Public Health Outcomes

U-WIN Pilot Launched to Track Vaccination Events Across India

*as on 31st March 2024

1.4   Household Consumption Expenditure Survey 2023-24

Why in News?

Recently, Ministry of Statistics & Program Implementation has released Household Consumption Expenditure Survey (HCES) for the year 2023-24.

What is the HCES?

- **HCES** – It is designed to collect information on consumption and expenditure of the households on goods and services.

- **Nodal Ministry** - Ministry of Statistics & Program Implementation.

- **MPCE** - Monthly Per Capita Consumption Expenditure (MPCE) compiled from HCES is the primary indicator used for most analytical purposes.

- **Data collection** - The estimates of MPCE of 2023-24 are based on the data collected from 2,61,953 Households (1,54,357 in rural areas and 1,07,596 in urban areas) in the central sample spread over all States and Union Territories in the country.

- **Two sets of estimates**
  - Without considering imputed values of items received free of cost by the households through various social welfare programs.
  - Considering imputed values of items received free of cost by the households through various social welfare programs.

- **Significance of survey** - The survey provides data required
  - To assess trends in economic well-being
  - To determine and update the basket of consumer goods and services and weights used for the calculation of the Consumer Price Index.
  - To measure poverty, inequality, and social exclusion.

**What are the findings of HCES 2023-24?**

- **Average MPCE** - Without taking into account of the values of items received free of cost by the households through various social welfare programs.
  - ***Rural - Rs. 4,122***
  - ***Urban - Rs. 6,996***

- Considering the imputed values of items received free of cost through various social welfare programmes, these estimates become Rs. 4,247 and Rs. 7,078 respectively, for rural and urban areas.

Average MPCE (Rs.) at current Prices and 2011-12 prices					
Survey	Period	at current Prices		at 2011-12 Prices	
		Rural	Urban	Rural	Urban
HCES: 2023-24	Aug 2023- Jul 2024	4,122	6,996	2,079	3,632
HCES: 2022-23	Aug 2022- Jul 2023	3,773	6,459	2,008	3,510
68th round (2011-12)	Jul 2011-Jun 2012	1,430	2,630	1,430	2,630

- **Increase in MPCE** - In nominal prices, the average MPCE (without imputation) in 2023-24 increases by about **_9% in rural areas_** and **_8% in urban areas_** from the level of 2022-23.

- **Urban-rural gap** – It has declined to 71% in 2022-23 and 70% in 2023-24 from 84% in 2011-12.

- **Growth of bottom strata** - The increase in the average MPCE in 2023-24 from the level of 2022-23 has been the maximum for the bottom 5 to 10 % of India's population, for both rural and urban areas.

- **Major contributors** - **_Non-food items_** remain the major contributor to the household's average monthly expenditure in 2023-24 with about 53% and 60% share in MPCE in rural and urban areas respectively.

- **Major food items** - Beverages, refreshments and processed food continues to have the major expenditure share in 2023-24 in the food items basket of the rural and urban households.

Share of Food items in Average MPCE - Rural

Share of Food items in Average MPCE - Urban
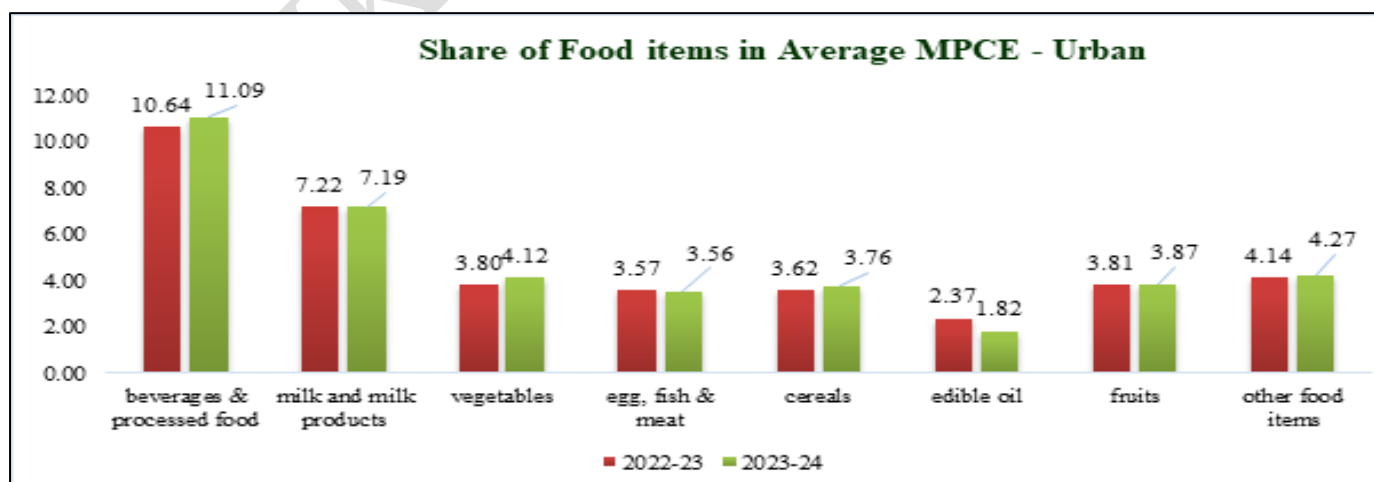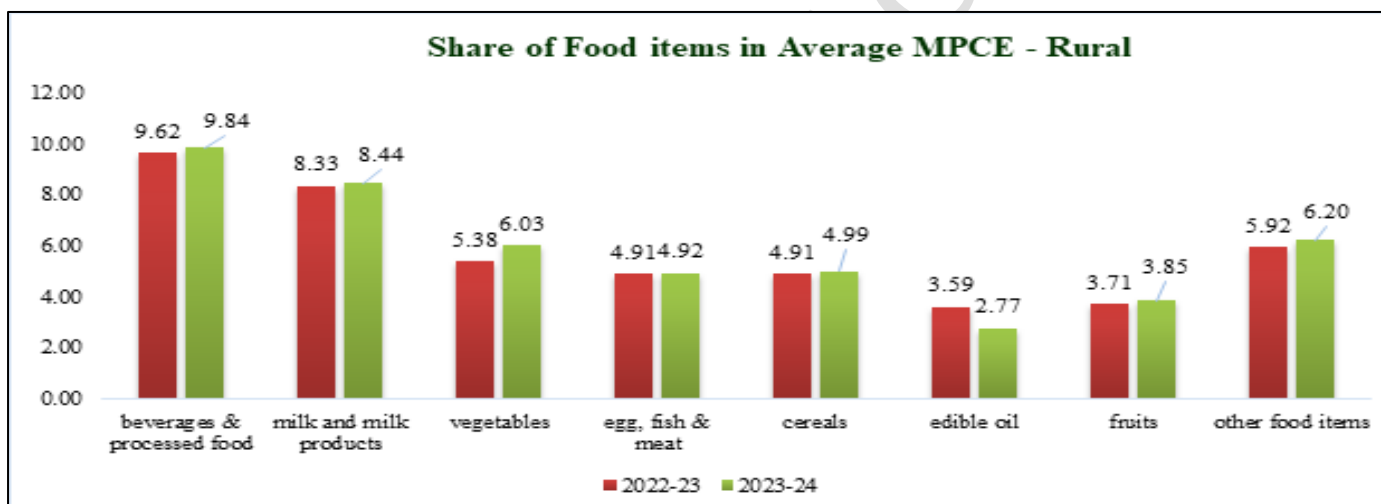
- **Major nonfood items** - Conveyance, clothing, bedding & footwear, miscellaneous goods & entertainment and durable goods have major expenditure share in non-food expenditure of the households in both rural and urban areas.

Share of Non-Food items in Average MPCE : Rural

Share of Non-Food items in Total MPCE : Urban
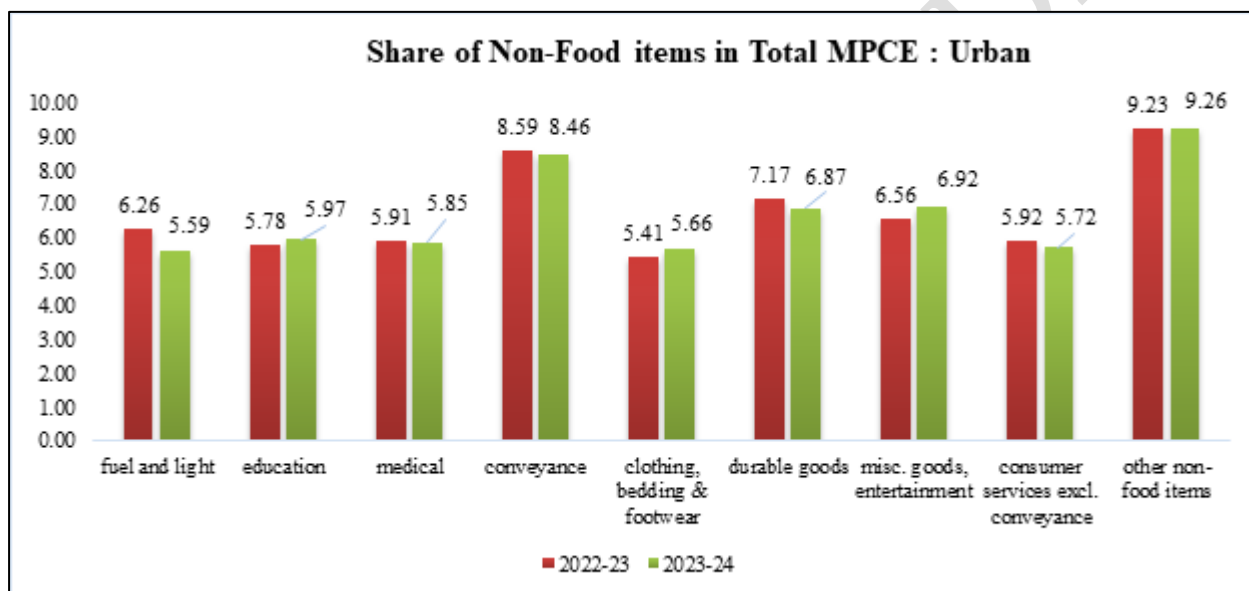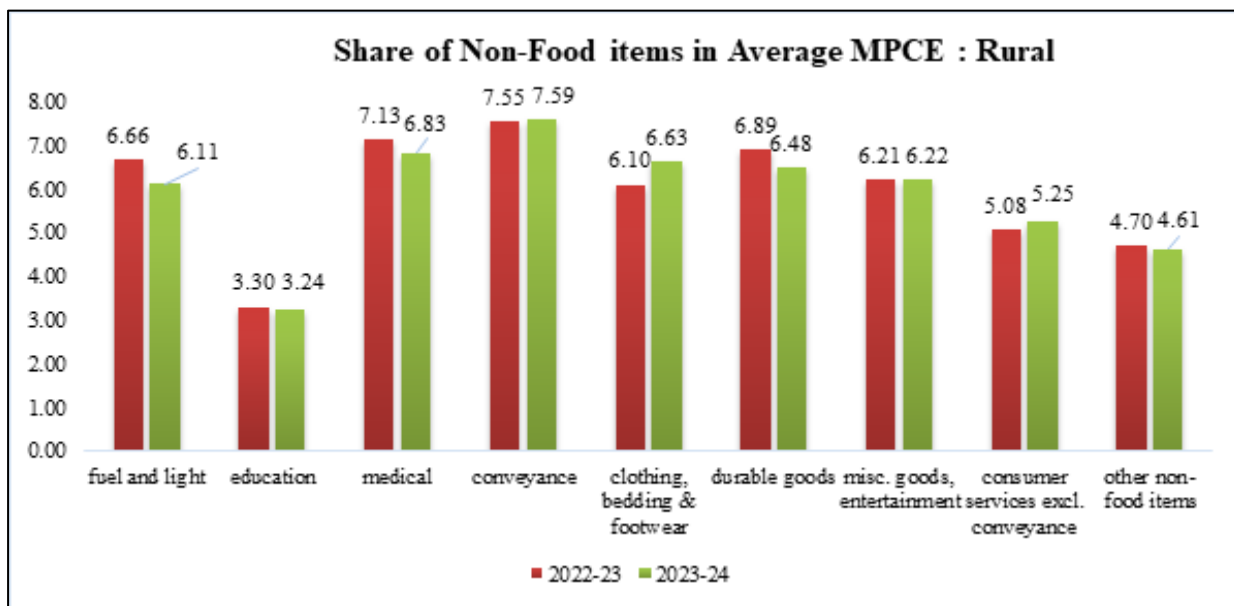
- Rent consisting of house rent, garage rent and hotel accommodation charges with about 7% share is another major constituent of the urban households' non-food expenditure.

- **Consumption inequality** - The Gini coefficient has declined to 0.237 in 2023-24 from 0.266 in 2022-23 for rural areas and to 0.284 2023-24 from 0.314 in 2022-23 for urban areas.

- **Class variation** - The bottom 5% of India's rural population has an average MPCE of Rs. 1,677 while it is Rs. 2,376 for the same category of population in the urban areas.

- The top 5% of India's rural and urban population, ranked by MPCE, has an average MPCE of Rs. 10,137 and Rs. 20,310, respectively.

- **Variation in MPCE among the States**
  - o MPCE is the ***highest in Sikkim*** (Rural – Rs. 9,377 and Urban – Rs. 13,927)
  - o It is the ***lowest in Chhattisgarh*** (Rural – Rs. 2,739 and Urban – Rs. 4,927).

- **Variation in MPCE among Union Territories**
  - o MPCE is the highest in Chandigarh (Rural – Rs. 8,857 and Urban – Rs. 13,425).
  - o It is the lowest in Dadra and Nagar Haveli and Daman and Diu (Rs. 4,311) in Rural.
  - o Lowest in Jammu and Kashmir (Rs. 6,327) in urban areas.

- **Rural – Urban difference** - It is the highest in Meghalaya (104%) followed by Jharkhand (83%) and Chhattisgarh (80%).

Average MPCE value for different fractile classes of MPCE

Rural India

■ 2022-23 Fractile Class ■ 2023-24

2022-23	Fractile Class	2023-24
10501	95-100%	10,137
6638	90-95%	6,929
5356	80-90%	5,763
4458	70-80%	4,885
3887	60-70%	4,304
3455	50-60%	3,866
3094	40-50%	3,498
2768	30-40%	3,162
2454	20-30%	2,833
2112	10-20%	2,473
1782	5-10%	2,126
1373	0-5%	1,677

Average MPCE (Rs.)

Urban India

■ 2022-23 Fractile Class ■ 2023-24

2022-23	Fractile Class	2023-24
20,824	95-100%	20,310
12,399	90-95%	12,817
9,582	80-90%	10,139
7,673	70-80%	8,353
6,524	60-70%	7,199
5,662	50-60%	6,334
4,963	40-50%	5,622
4,348	30-40%	4,979
3,762	20-30%	4,353
3,157	10-20%	3,687
2,607	5-10%	3,093
2,001	0-5%	2,376

Average MPCE (Rs.)

Average MPCE (in Rs.) for major states - Rural

Kerala, 6,611; Tamil Nadu, 5,701; Punjab, 5,817; Andhra Pradesh, 5,327; Telangana, 5,435; Haryana, 5,377; Karnataka, 4,903; Rajasthan, 4,510; Maharashtra, 4,145; Gujarat, 4,116; All-India, 4,122; West Bengal, 3,620; Uttar Pradesh, 3,481; Madhya Pradesh, 3,441; Assam, 3,793; Bihar, 3,670; Odisha, 3,357; Jharkhand, 2,946; Chhattisgarh, 2,739

What are the issues with HCES data and poverty estimation?

- **Incomparable data sets** – NSSO, has tried new methods in the recent surveys which makes it incomparable with early records of consumption.

- **Different standards** - Over the years, there has been a divergence between the NSSO per capita household consumption expenditure data and those from the National Accounts.

- **Difference in recall periods** - The NSSO has set a seven-day recall period for certain items and 30-day period for others.

- These estimates then could not be compared with previous consumption estimates, which had different recall periods.

> A **recall period** is when a respondent is asked to recall their consumption expenditure over a specific time period.
>
> **Uniform reference period (URP)** had 30 days of recall for all items, and the mixed reference period (MRP) had 30 days (food) and 365 days (for other goods). Tendulkar estimated poverty based on MRP.
>
> **Modified mixed reference period (MMRP)** has seven days for food items along with 30 days and 365 days for other items.

- **Rural definition** – The idea and the definition of rural area that we have is based on the 2011 Census, which has changed vastly at the current situation.

- **Lack of definition of poverty line** – There was a stable definition of poverty from the late 1970s to 2005.
- But after 2011-12, there is neither official poverty estimates nor conducted a survey.

What can be done?

- Need to put a statistical base in place, including a Census, so we know what is rural and urban
- There should be clear-cut separation of what is rural and urban.
- Need to have a clear-cut methodology for a poverty line estimation

G.S PAPER I

2. HISTORY

2.1	Role of Muslim league in British India

Why in news?

Recently anniversary of All India Muslim League was observed in December 30.

What was the background of formation of AIML?

- All India Muslim league (AIML) was formed by **Nawab Salimullah Khan on** December 30, 1906, in Dhaka.
- **AMU** – Aligarh Muslim University provided the first institutional mechanism for mobilizing Muslims to protect their political economic interest.
- **Political leadership –** By the beginning of 20th century, Rich and powerful Muslims in India had begun to realize the need for political leadership and representation within the community.
- **Partition of Bengal in 1905** – Opposition of Bengal partition by congress made the elite Muslims the need to form organization to protect their interest.
- **Divide and Rule Policy** – It exacerbated religious tensions to maintain control, encouraging ALML formation.
- **Lack of Representation** - Muslims felt underrepresented in government institutions and decision-making processes.
- **1906 Simla deputation -** In 1906, a group of Prominent Muslims met Lord Minto, then Viceroy of India, , to demand more political representation for Muslims.

How Lucknow pact strengthened AML?

- **Lucknow pact** - In December 1916, the Congress under Bal Gangadhar Tilak and the Muslim League under Muhammad Ali Jinnah signed the Lucknow Pact.

> *Lucknow session* of 1916 was the first Congress session attended by Gandhiji after his return to India from South Africa in 1915.

- **Recognition to AML** – The pact gave indirect recognition to Muslim league as the sole representative of Muslims in India.
- **Separate electorate** – Congress agreed to the separate electorate demand of the league.
- **Reservation in central council** – 1/3rd reservation was provided to Muslim league in central legislative council.
- **Leadership Role** - Muhammad Ali Jinnah, who played a key role in the pact, emerged as a prominent leader, further consolidating the League's position.
- **Communalism** - The pact institutionalized communal representation, which laid the groundwork for future communal politics.

What was the impact of Lahore resolution?

- **Lahore Resolution** – Adopted by All-India Muslim League in 1940, It formally called for an independent state for India's Muslims.
- **Transformation of league** - From the Lucknow pact to the Lahore Resolution, both the League and Jinnah had transformed entirely.

- **Independent States for Muslims** – Grouping of geographically contiguous Muslim majority regions in North Western and Eastern Zones of (British) India as 'independent states'.

- **Protection of Minority Rights** - The resolution emphasized the need to secure political, economic, and cultural rights for Muslims in minority regions.

> *March 23 is observed as Pakistan National Day to commemorate this resolution.*

- **Impact on secularism** - Its passage marked a formal articulation of the demand for a separate nation for Muslims, distinct from the vision of a united, secular India promoted by the Indian National Congress.

- **Partition of India** – After the resolution, Muslim league demanded nothing but partition of India and separate country for Muslims.

How the league achieved partition of India?

- **Cripps Mission 1942 -** AIML rejected the Cripps proposal demanding a separate state for Muslims.

- **CR or Rajaji Formula 1944** – It was proposal by C. Rajagopalachari to resolve the political divide between the INC and the AIML.

- It proposed a plebiscite in Muslim-majority areas to determine their future, with the option of joining a separate nation.

- AIML rejected the formula due to its insufficient demand for a clear partition of India into two sovereign states.

- **Wavell Plan 1945**- AIML demanded for sole representation of Indian Muslims and the need for parity between caste Hindus & Muslims in the Executive Council.

- **Cabinet Mission Plan (1946) -** It proposed a united India with a weak central government and strong provincial autonomy.

- AIML initially accepted it but later withdrew its support, demanding a complete partition of India.

- **Direct Action Day (1946) -** when the British invited Nehru for interim government, Jinnah called for a nationwide strike & protest, which turned violent in Calcutta, leading to widespread riots & communal violence.

- **Partition of India** – June 3 plan decided the partition of British India into two independent sovereign states.

Quick Facts
Jinnah's Political Career

- ○ Joined, INC in 1906 and served as its secretary in 1907.

- ○ Became a member of the Imperial Legislative Council.

- ○ Resigned from INC in 1920 due to disagreements with Mahatma Gandhi's policies, particularly his non-cooperation movement.

- ○ Jinnah's Role in League

  - ○ Initially advocated for Hindu-Muslim unity and a united India.

  - ○ Led the AIML in demanding India's partition & played a vital role in its creation in 1947**.**

3. SOCIAL ISSUES

3.1 Educational Language Policy

Why in News?

Recent data reveals that only a small fraction of India's population has access to quality English education.

What is the status of English education in India?

- In the age group of 14-18, a little over half (57.3%) can read sentences in English.

- **Widening gap** - Recent data reveals that only a small fraction of India's population — primarily from affluent, urban backgrounds — has access to quality English education.

- **Declining proficiency** - While the 2011 Census recorded over 10% of Indians reporting the ability to speak some English, a recent survey by Lok Foundation reported 6%.
- **Impact of widening gap:**
  - Perpetuates socio-economic privilege of upper sections of the community.
  - Deepens the socio-economic divide among people.
  - Reinforces existing inequalities.
  - Challenges India's aspirations for inclusive growth and socio-economic mobility.

What are the significances of English education?

> *80% of the world's* academic *publications are in English.*

- **Global medium** - English has become a global medium for diplomacy, commerce, science, and technology.
- **Access to international opportunities** – Proficiency in English is condisidered a prerequisite for many jobs and opportunities.
- **Technical language** - In India English underpins key sectors such as medicine, higher education, and IT services.
- **Digital age** - Artificial intelligence and other digital innovations have magnified English's importance.
- **Upward social mobility** – English knowledge drive not only personal success, but also the broader development of their communities and, by extension, the nation.

What are the significances of education in mother tongue?

- **Fostering cognitive growth** – Instruction in mother-tongue offers a crucial cognitive advantage.
- **Better learning** - Children learn complex concepts more easily in their mother tongue.
- **Cultural** – It helps in retaining a stronger sense of cultural identity when initial teaching is conducted in the language they speak at home.
- **Learning other languages** - Learning any language is significantly enriched by one's native linguistic foundation and the broader environment in which one is immersed.

What are the challenges in linguistic reform?

- **Linguistic Diversity** - India is home to over 1.3 billion people and more than 22 official languages, with thousands of dialects and languages spoken across the country.
- **Conflict between States and Union** – Most of Non hindi speaking states prefer 2 language policy and Union recommends 3 language policy.
- **Half-measures** – A wholistic linguistic reform considering the aspiration of national and regional regions has often been slow and inconsistent.
- **Inadequate resources** - Schools where regional languages serve as the primary medium often lack the resources or curriculum needed to build strong English skills.
- **Uneven access** - Access to English education is not equal between rural – urban, gender and different socio-economic backgrounds.

What lies ahead?

- Rather than viewing English and local languages as mutually exclusive, education policies should recognise them as complementary tools, each essential for holistic development.
- Ensure that all children, regardless of social or economic background, graduate from school with solid proficiency in both their mother tongue and English.
- A dedicated national commission to assess the linguistic to identify cultural, economic, and infrastructural barriers to English learning.
- Provide incentives for well-trained English teachers — offering scholarships, higher pay, and rural service allowances.
- Integrating English from the early primary years, without compromising the primacy of the mother tongue.
- Conduct surveys and consultations to get the opinion of families and communities to understand the grassroots reality of India's diverse population.

- A policy that maintains the child's mother tongue as the bedrock of cultural and conceptual understanding while guaranteeing proficiency in English can tackle deep-rooted educational inequalities and unlock India's unrealised potential on the global stage.

G. S. PAPER II

4. INDIAN POLITY

4. 1 Collegium Reform

Why in News?

Recently the Supreme Court collegium has decided to conduct interviews of candidates who have been recommended for elevation as judges to the High Courts.

How are appointments to higher judiciary made?

- **Appointment of Supreme Court judges** – Article 124 of Constitution provides that judges to the Supreme Court are appointed by the President of India in consultation with the CJI and such other judges that he or she deems fit.

- **Appointment of High Court judges** - Article 217 provides that Judges to the High Courts are appointed by the President in consultation with the CJI, the Governor of the State and the Chief Justice of that court.

- **Transfer of HC Judges** - Article 222 provides that President may move a judge from one High Court to another, but only after consulting the CJI.

- **Lack of clarity** – These provisions failed to define the manner of consultation and transparency the process.

- **Judge's cases** - Interpretation of the judges appointment provisions were brought before the Supreme Court.

- **First Judge Case, 1981**- The Supreme Court ruled that the word "consultation" could not be interpreted as "concurrence".

    o   Accordingly, the CJI's opinion was not binding on the executive.

- **Second Judges Case, 1993**- The court overruled its earlier decisions and held that "consultation" meant "concurrence".

- This means that the advice rendered by the CJI on matters of appointments is binding on the President.

- **Third Judges Case, 1998**- The court clarified that the collegium would comprise

    o   CJI and 4 senior-most colleagues - Appointments to Supreme Court

    o   CJI and 2 senior-most colleagues - Appointments to High Courts

- **NJAC**- The government, through 99th constitutional amendment, sought to replace the collegium with the National Judicial Appointments Commission (NJAC).

    o   NJAC included the Union Minister for Law and Justice and two eminent persons, besides the CJI and next two senior most SC judges.

- **Fourth Judges Case, 2015**- The court ruled that the primacy of the judiciary in judges' appointments was embedded in the basic structure of the Constitution.

- NJAC was declared as unconstitutional and void by the Supreme Court.

What is the current appointment process of judges?

- **Initiation** - Recommendation to appoint a new judge to a High Court or to the Supreme Court, to transfer a judge from one High Court to another would come from the collegium.

- **Consultation** - The collegium will make this recommendation after taking the views of "consultee" judges.
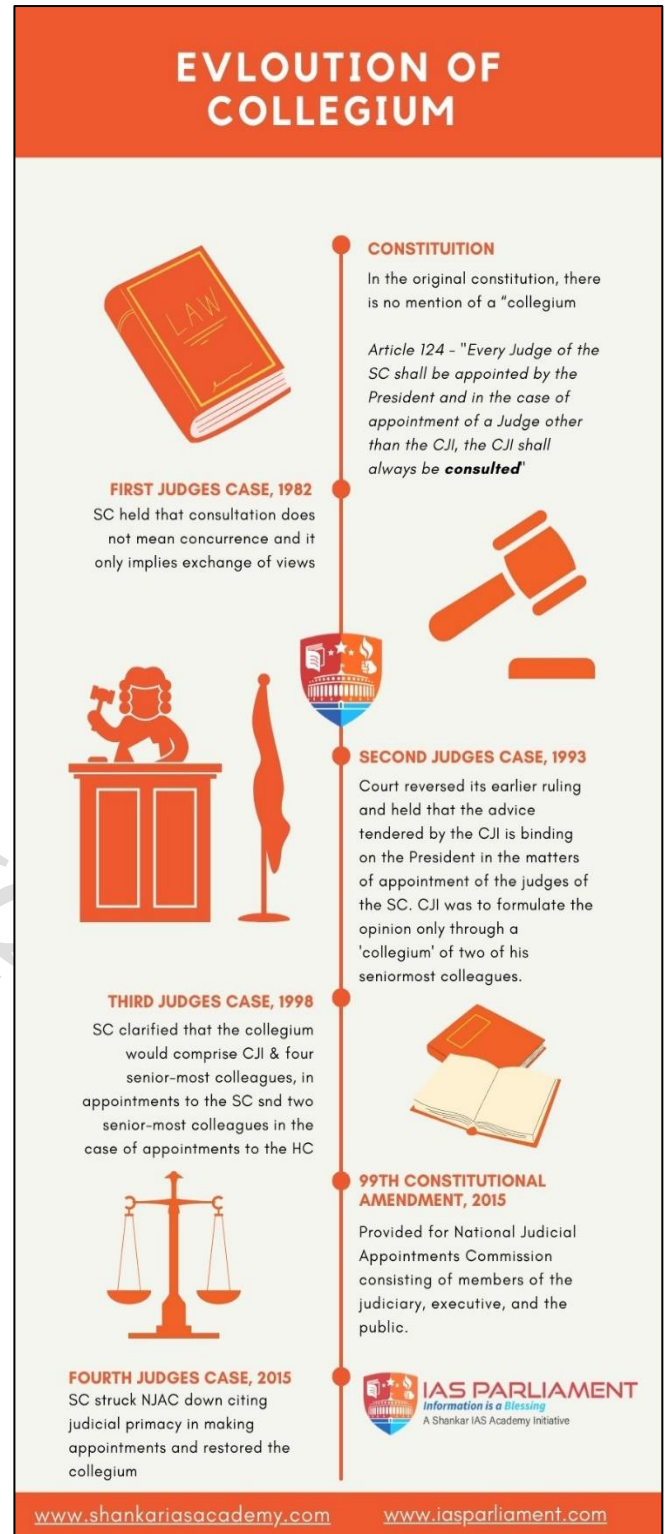
- **Government approval** - Union government can either choose to accept the collegium recommendation or return the proposal for reconsideration.

- Upon reconsideration, if the proposal is submitted anew, the government has no choice but to sanction the resolution.

- **Appointment** – After the notification by the law ministry, the judges were appointed by the President.

- **Recent reforms** - The collegium will now conduct interviews of candidates who have been recommended for elevation as judges to the High Courts.

- The panel will also, to the extent possible, exclude from selection those whose close relatives have served or continue to serve as judges of the High Courts or the Supreme Court.

What are the issues with collegium system?

- **Lack of constitutional mention** - collegium is a product of judge-made law and has no formal constitutional , legal place in any article or statue.

- **Conflict with government** – Collegium recommendations have been delayed by the government but not acting on the recommendations.

- **Paradox** - Collegium has primacy over judicial appointments. But the government can forestall any recommendation.

- **Lack of clear procedure** – No written constitutional or legal provisions in dealing with the deadlock between judiciary and executive in this matter.

- **Non-transparency in appointments** - It is seen as a closed-door affair with no prescribed norms regarding eligibility criteria, or even the selection procedure.

- **Lack of diversity** - The absence of an institutional mechanism to ensure diversity on the Bench in the judiciary is a problem.

- **Difference of opinion** - The conflicting opinion within the collegium members is hampering the functioning of the collegium system.

What lies ahead?

- A clear set of binding rules is essential to the maintenance of the system's integrity.

- Those rules must balance separation of powers, autonomy of judiciary and ensure accountability with independence.

EVLOUTION OF COLLEGIUM

CONSTITUITION
In the original constitution, there is no mention of a "collegium

Article 124 - "Every Judge of the SC shall be appointed by the President and in the case of appointment of a Judge other than the CJI, the CJI shall always be **consulted**"

FIRST JUDGES CASE, 1982
SC held that consultation does not mean concurrence and it only implies exchange of views

SECOND JUDGES CASE, 1993
Court reversed its earlier ruling and held that the advice tendered by the CJI is binding on the President in the matters of appointment of the judges of the SC. CJI was to formulate the opinion only through a 'collegium' of two of his seniormost colleagues.

THIRD JUDGES CASE, 1998
SC clarified that the collegium would comprise CJI & four senior-most colleagues, in appointments to the SC snd two senior-most colleagues in the case of appointments to the HC

99TH CONSTITUTIONAL AMENDMENT, 2015
Provided for National Judicial Appointments Commission consisting of members of the judiciary, executive, and the public.

FOURTH JUDGES CASE, 2015
SC struck NJAC down citing judicial primacy in making appointments and restored the collegium

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4.2 Digital Personal Data Protection

Why in News?

Recently the Union government notified the draft rules on Digital Personal Data Protection act, 2023.

What are the key features of draft Digital Personal Data Protection Rules?

- **DPDP Rules** - These rules seek to operationalize the Digital Personal in line with India's commitment to create a robust framework for protecting digital personal data.

- **Aim** - To safeguard citizens' rights for the protection of their personal data.

- To strengthen data protection regulations and foster trust between users and digital platforms.

- To achieve the right balance between regulation and innovation.

- To Share benefits of India's growing innovation ecosystem to all citizens.

- **Applicability** – It is applicable to

    o E-commerce entities with at least 2 crore registered users in India.

    o Online gaming intermediaries with not less than 50 lakh registered users.

    o Social media intermediaries with at least 2 crore registered users.

- **Informed consent** - Data Fiduciary must provide the Data Principal(the user) the itemized list of personal data being collected and the purpose of collection.

- **Prior notification** - Data provider must send out a notice 48 hours in advance alerting the individual that it intends to erase his/her personal data from its servers.

- **Consent manager -** A company be incorporated in India as consent manger by the data fiduciary to enable users using its platform to give consent to the processing of their personal data.

- **Data rights** - Citizens are empowered with rights to demand data erasure, appoint digital nominees, and access user-friendly mechanisms to manage their data.

- **Withdrawal of consents** - Individual should be able to withdraw consent just as easily as it is given.

- **Data access by states** - The State agencies may process the personal data of users to provide or issue subsidies, benefits, services, certificates, licenses, or permits, as defined under law or policy or using public funds.

- **Security safeguards** - Data Fiduciary must implement reasonable security measures to protect personal data, including encryption, access control, monitoring for unauthorized access, and data backups etc.

- **Intimation of data breach** - Information about every data breach must be provided in 72 hours of that event.

- **Data Protection Officer (DPO)** - Every Data Fiduciary must clearly display on their website or app the contact details of a designated person who can address questions regarding the processing of personal data.

- **Parental consent** - Verifiable consent from parents or legal guardians must be obtained before processing the personal data of children or persons with disabilities.

- **Audit** - Fiduciaries must conduct a Data Protection Impact Assessment (DPIA) and a comprehensive audit once every year.

- **Rights of users** - Data Fiduciaries and Consent Managers must clearly publish on their website or app the process by which Data Principals can exercise their rights under the Act.

Rights of Data Principal (Users)

RIGHT TO INFORMATION ABOUT PERSONAL DATA
RIGHT TO WITHDRAW CONSENT
RIGHT TO CORRECTION
RIGHT TO GRIEVANCE REDRESSAL
RIGHT TO NOMINATE

- **Data Protection Board** – It will function as a digital office, with a digital platform and app to enable citizens to approach it digitally and to have their complaints adjudicated without their physical presence being required.

- **Processing of personal data outside India**— Transferring Indian user's personal data outside is subject to the government restriction.
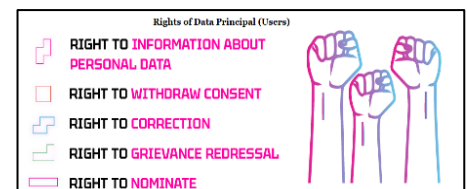
> ***DPDP Act*** *permits cross border transfer of data, apart from blacklisted jurisdictions.*

What are the concerns with the rules?

- **Lack of clarity** - Proposed DPBI's institutional design have not been clearly spelt out.

- **Inadequate transparency** – Recommendations of the Justice B.N. Srikrishna committee convened to draft the first Bill for data protection, is not placed in public domain.

- **Ambiguous** - No explicit mechanism to ensure that the consent is sourced from the parent.

- **Retaining data** - Data fiduciaries are being permitted to retain data for up to three years from the last interaction or the date from which the rules come into effect.

- **Inadequate compliance mechanism** - Rules do not provide for a credible enforcement mechanism to ensure compliance of many provisions such as data breach notification, parental consent.

- **Cross-border processing of information** – It is not clear which countries will be permitted to access personal data of Indian consumers.

- **Challenges for businesses** - Maintaining consent artefacts and offering the option to withdraw consent for specific purposes could necessitate changes at the design and architecture level of applications and platforms.

What lies ahead?

- It must be ensured that minimising data collection, promoting disclosures, penalising neglect in protecting user data, and discouraging surveillance practices, both by the private sector and the government.

- Enhance operational clarity in certain areas such as parental consent, cross border data processing.

- Continued input and guidance from the government will be essential to drive effective implementation.

4.3 Accelerated and Extended Degree Programmes

Why in News?

Recently, University Grants Commission (UGC) has released guidelines for accelerated degree programme and extended degree programme for undergraduate students.

What are extended and accelerated programme?

- **Accelerated and extended degree programme** – It will allow students to complete their degrees either earlier or later than the standard duration.

- **Accelerated degree program** - ADP allows students to complete a three-year or four-year degree in reduced time by earning additional credits per semester.

- **Extended degree programme** - EDP enables an extended timeline with fewer credits per semester.

- **Aim** - To create a globally competitive educational framework that allows students greater autonomy and flexibility in charting out their academic trajectory.

- **Equal status** - They will be treated at par with standard duration degrees and students earn the same total credits as in the standard-duration programme.

- **Eligibility -** Higher education institutions will establish committees to evaluate students' eligibility for these programmes.

- **Awarding degree -** HEIs may issue degrees for students on completion of the programme in the opted duration (shortened or extended duration) and need not wait to complete the standard duration for the award of the formal degree.

What are the advantages of it?

- **Early employment** – It will facilitate those who are keen to join the workforce quickly or who wish to gain early professional experience.

- **Cost effective** – It enables students to save money on tuition fees and costs during the college education period.

- **Broader learning** – It will allow students the leeway to explore a broader range of subject, undertake internships, and learn in new skills.

- **Balanced education** – It helps in balancing academic pursuits with personal and professional commitments.

- **Multidisciplinary approach** - This approach could produce graduates who are not only proficient in their chosen fields, but are also equipped with more soft skills, creative skills, and ideas for innovation.

- **Greater Mobility** - By aligning the structure of undergraduate education with international standards, the reforms aim to create greater mobility for Indian students, both within India and abroad.

- **Flexibility** - The flexible credit system introduced under these reforms will allow students to progress at their own pace and specific needs, interests, and future career goals.

- **More opportunity** - Extended degree option in engineering could provide students with more opportunities for specialisation, research, and practical experience

- **Vikshit Bharat** - These reforms could lay the foundation for a more dynamic higher education system, and would help India realise the dream of Viksit Bharat by 2047.

What are the disadvantages with the program?

- **Impact on quality** - The accelerated format affects the depth and rigour of the education provided to students.

- **Compromise educational outcomes** - If students are taught the same curriculum within a shorter period of time, they may have a superficial understanding of key concepts.

- **Slowness** - Students who opt for the extended degree programme may lack academic urgency.

- **Decline in degree value** - Some may take longer than necessary to complete their studies, which would diminish the value of the degree.

- **Specialization** - Engineering programmes are traditionally structured to provide students with a specialised education that prepares them for specific career paths.

- **Oversimplification of technical learning** - Engineering degrees require an in-depth study of subjects such as mathematics, physics, chemistry, and advanced engineering principles.

- **Affect technical competencies** - Compressing the technical content could reduce the time available for practical projects, lab work, tutorial sessions, and project work and internships.

- **Affects professional skills** - Any pressure to finish their studies quickly may hinder their ability to master problem-solving techniques.

- **Financial burden** - Extended degree option in engineering will be more of a financial burden for students and could discourage those who already face economic constraints.

What are the challenges in implementing it?

- **Difficulty in adaptation** - Adapting to the new structure, especially in engineering programmes which demand a deep understanding of both theory and practice is difficult.

- **Restructuring challenges** – It requires substantial restructuring of curricula, teaching methods, and approval from competent bodies of universities and administrative systems.

- **Transition challenges** - The introduction of accelerated and extended degrees necessitates robust systems for tracking student progress, evaluation, and managing credit transfers.

- **Resource constraints** – The new approach requires more material and human resources which is difficulut for universities that already face resource constraints.

- **Digitalization** - Shift towards greater digitalisation in education, which is likely to accompany these reforms, could deepen the digital divide.

- **Equity implications** - Students from underprivileged backgrounds may struggle to navigate the new system without adequate guidance and support.

- **Teachers' capacity development** - Teachers will need to undergo professional development to adjust to the demands of flexible, interdisciplinary curricula.

What lies ahead?

- Develop sophisticated administrative frameworks to manage the implementation complexities.

- Address the challenges with strategic planning, adequate investment, timely recruitment of faculty and staff, and a commitment to inclusivity.

4.4 Abetment of Suicide Charges

Why in News?

Recently, Supreme Court cleared charges against a bank manager accused of abetting the suicide of a man who allegedly took his own life after he was unable to repay his bank loans.

What is suicide?

- **Suicide** – According to National Crime Records Bureau (NCRB), suicide is a personal tragedy that *prematurely takes the life* of an individual and has a continuing ripple effect, affecting the lives of families, friends and communities.

> *A Lancet study stated that suicide death rates in India are among the highest in the world and a large proportion of adult suicide deaths occur between the ages 15 and 29.*

- **Status in India** – National Crime Records Bureau (NCRB) reports that ***1.71 lakh people died by suicide in 2022***.

- **Higher suicide rate** – In 2022, it has increased to *12.4 per 1, 00,000,* the highest rate ever recorded in India since 1967.

> *In India, the overall conviction rate for all crimes under the IPC was 69.8%. It was 54.2% for cognizable offences, which includes abetment to suicide, where an arrest can be made without a warrant.*

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- **Vulnerable states** - As per NCRB 2021 data the highest number of student suicides is reported in _Maharashtra_ followed by Madhya Pradesh and Tamil Nadu.

- **Key drivers of suicides in India** - Experts point to issues such as poverty, debt, domestic violence, addiction, and social isolation.

What is abatement of suicide in criminal law?

- **Term 'abetment'** – It is defined _under Section 107 of the IPC_, which is the same as _Section 45_ of the Bharatiya Nyaya Sanhita, 2023 (BNS).

- A person abets the doing of a thing, if she

    o _Instigates_ any person to do that thing, or

    o Engages with one or more others in a _conspiracy_ for the doing of that thing, or

    o _Intentionally aids_, by any act or illegal omission, the doing of that thing

- **Proving abetment of suicide** – Evidence has to effectively show that the accused directly instigated or aided the deceased to die by suicide.

- **Punishment** – It can be _up to 10 years imprisonment_ along with a _fine_ under **Section 306 IPC (Section 108 BNS).**

- **Conviction rate** – According to the National Crime Records Bureau's annual _Crime in India report_, the conviction rate in abetment of suicide (Section 306 IPC) cases _was 17.5% in 2022_, the year for which the latest data are available.

What are the ingredients for an abetment to suicide charge?

- **Bar for proof** – It would be higher in cases where the deceased and the accused have an official relationship (such as between an employer and employee).

- Both the courts and prosecuting agencies must see if there is evidence to show that the accused intended to cause the suicide.

- There must be "direct and alarming encouragement/ incitement by the accused" to prosecute someone for abetment to suicide.

- **Requirement for direct evidence** – In **M Mohan v The State (2011)**, the SC set a high bar for proving abetment of suicide under Section 306 IPC, including specific intent.

    o It requires an _active or direct act_ which led the deceased to commit suicide seeing no option.

    o And this act must have been intended to push the deceased into such a position that he/ she committed suicide".

- This standard was upheld in **Ude Singh v State of Haryana (2019)** as well, where the SC stated

    o There must be a _proof of direct or indirect act_(s) of incitement to the commission of suicide.

Understanding **What is IPC 306 ?**
Abetment of suicide

Section 306 of the Indian Penal Code is about a serious rule that says it's a crime to make someone want to hurt themselves or end their life. If someone does this, they can go to jail for up to ten years and might have to pay money as a punishment.

What is the punishment under IPC 306?

Imprisonment for up to ten years and may also be liable to pay a fine.

Is IPC 306 a Serious Crime (Compoundable)?

IPC 306 is serious and non-compoundable, meaning it can't be settled out of court.

Can You Get Bail Under IPC 306?

No, it is a non-bailable offence. Accused can still apply for anticipatory bail though a lawyer.

Legal Criteria for Abetment of Suicide

Mens Rea - The accused's criminal intent to provoke the victim.

Victim's Suicide - The act of the victim taking their own life.

Willful Silence - Deliberate silence contributing to the victim's decision.

Instigation or Abetment - Actions or words encouraging the victim to commit suicide.

Continuous Irritation - Persistent annoyance causing distress to the victim.

Accused's Direct Involvement - The accused's active role in the circumstances leading to suicide.

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- o If the accused by his acts and by his continuous course of conduct creates a situation which leads the deceased perceiving *no other option except to commit suicide*, the case may fall within the four corners of Section 306 IPC.

What are the recent orders of Supreme Court?

- It stated that investigating agencies need to be sensitised to the law laid down by SC *under Section 306 IPC* so that persons are not subjected to abuse of process of a totally untenable prosecution.

- **Do's** – The persons involved in genuine cases where the threshold is met should not be spared.

- **Don'ts** - The provision (Sec 306 IPC/Sec 108 BNS) should not be deployed against individuals only to assuage the immediate feelings of the distraught family of the deceased.

- It states that hyperboles and informal exchanges without anything more should not be glorified as an instigation to commit suicide.

> *In October 2024, the Supreme Court quashed the case of abetment of suicide in which a salesperson died by suicide after alleged harassment from senior officers in his company who were forcing him to opt for a voluntary retirement scheme.*

What lies ahead?

- India's current suicide prevention efforts, which fall under the National Mental Health Programme, must *expand to a 'whole-government public health approach'.*

- More focus is needed on addressing socio-economic risks alongside mental health interventions.

> *India's **National Suicide Prevention Strategy**, released in 2022, highlights the necessity of adopting a more comprehensive approach.*

- Create a more supportive environment that prioritises early intervention, reduces stigma, and ultimately saves lives

Journey of the Indian Constitutional State

Why in News?

India celebrates the 75th anniversary of the coming into effect of the Constitution of India.

What is the character of Indian constitutional federal structure?

- **Union of States** - The term 'federation' has nowhere been used in the Constitution and Article 1 of the Constitution describes India as a 'Union of States'.

- **Reason** - According to Dr. B.R. Ambedkar, the phrase 'Union of States' has been preferred to 'Federation of States' to indicate two things

  - o The Indian federation is not the result of an agreement among the states like the American federation.

  - o The states have no right to secede from the federation.

- **Canadian model** - The Indian federal system is based on the 'Canadian model' and not on the 'American model'.

- The 'Canadian model' differs fundamentally from the 'American model' in so far as it establishes a very strong centre.

- **Co equals** - Dr. Ambedkar explained that the 'Centre and the States are co-equal' in matters of legislative and executive authority.

> *KC Wheare described the Constitution of India as "quasi-federal". He remarked that "Indian Union is a unitary state with subsidiary federal features.*

- The overriding powers for the Union are only placed "to be used in an emergency".

- **Regular conduct** - The regular conduct of democratic business in India is within a federal framework and not to be mistaken for a unitary one.

- **Basic structure** - Constitutional courts have confirmed that federalism to be a part of the basic structure of the Constitution, in S.R. Bommai vs Union of India (1994) and Government of NCT of Delhi vs Union of India (2024).

What are the recent federal constitutional issues?

- **Interpretation of India's federal structure** - Many of the constitutional issues that have been keenly debated in recent times have been around India's federal structure.

- **States vs Governor** - Tussles between State governments and some of the State Governors have made their way to the Supreme Court of India.

- **Simultaneous elections** – Conducting lok sabha and state assembly elections simultaneously has been debated between administrative efficiency and federal significance.

- **Regional languages** - The neglect of 'regional languages' such as Tamil, Kannada, Bengali, Marathi and so on is being argued from the vanguard of multilinguistic equality and State autonomy.

- **Fiscal federalism** – It has been a major sticking point for States that are suffering under the dual regime of the Finance Commission and the Goods and Services Tax Act.

- **Delimitation exercise** – This will determine the democratic future of India and set to result in a showdown between the Union and States that have controlled their population.

What are the challenges to social democracy?

- **Threat of police state** - Preventive detention, arbitrary arrests, denial of fair trial through the impunity that is guaranteed statutorily in anti-terror laws such preventive detention and unlawful activities.

- **Inequality** - Achieving a degree of equality among various cohorts in democratic manner.

> *Preventive detention act was upheld in the A.K.Gopalan Case 1950*

- Dr. Ambedkar explained that the country must strive to remove social and economic inequality before they become a threat to democracy itself.

- **Caste system** - Terming the idea of an Indian nation as a delusion, Dr. Ambedkar asked how people divided into several thousands of castes can be a nation.

- **Threat to personal liberty** - Reductionist, mechanical readings of the constitutional value of personal liberty and human dignity.

What lies ahead?

- Clear-headed guidance on the future of our constitutional philosophy.

- Strengthen the constitutional guardians in the form of judges, bureaucrats, politicians, activists, journalists and citizens.

> *Supreme Court of India reinstated Justice S. Fazl Ali's dissenting opinion in A.K. Gopalan vs State of Madras, unanimously in Puttaswamy vs Union of India (2017), a case about the fundamental right to privacy.*

- Exercise of 'creative constitutionalism' by constitutional courts in the cause of the right to personal liberty as justice.

5. GOVERNMENT POLICIES AND INTERVENTIONS

5.1   No Detention Policy

Why in News?

Recently, Union government amended the Rules of the Right to Education Act, 2009 in December 2024 to allow schools to detain students in Classes 5 and 8 if they are unable to meet the promotion criteria after a year-end examination.

What was the rationale behind the original no-detention policy?

- **No detention policy** - RTE Act in 2009 stipulated that "No child admitted in a school shall be held back in any class or expelled from school till the completion of elementary education [Classes 1 to 8].

- **Remove pressure** - The spirit of a no-detention policy was to ensure that children can learn without unnecessary pressure.

- **Assessment** - Single final year-end examination is not the best way to assess learning and decide on their progress.

> *CCE or Continuous and Comprehensive Evaluation is a process of evaluating the child's development in all the school-related activities stipulated in RTE,2009.*

- **Reduce Dropout Rates** - The policy aimed to prevent children from dropping out of school due to exam failure.

- **Focus on Holistic Development** - The policy encouraged a shift from rote learning and high-pressure exams to a more holistic approach to education.

- **Continuous comprehensive education (CCE)** - It promoted continuous and comprehensive evaluation (CCE) to assess students' progress.

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- **Encourage Inclusive Education** - By ensuring that no child is left behind, the policy aimed to promote inclusive education and reduce disparities in educational access and quality.

- **Societal disparities** – Wide socio-economic disparity in the Indian society creates disparities in educational accessibility and learning.

Why has the no detention policy been rolled back?

- **RTE 2018 amendment** – It enabled the States to decide on the detention policy.

- **No evaluation** - Government schools in many States simply stopped testing in any form until Class 5.

- **Automatic promotion** - Promoting children without bothering to find out if they had acquired grade-specific skills and knowledge.

- **Lack of focus on outcome** - Monitoring systems focussed on inputs or maybe indicators, rarely on outcomes.

- **Alarming learning gap** - Annual Status of Education Report (ASER), found that only 42.8% of Class 5 students could read a Class 2-level text in 2022, a fall from 50.5% in 2018.

    o Only 25.6% of them could do basic arithmetic problems in 2022, a slight drop from 27.9% in 2018.

    o Quarter of the youth aged 14 to 18 years still cannot read a Class 2 level text fluently in their regional language.

    o More than half struggle with division (3-digit by 1-digit) problems, a skill taught in Class 3 and 4.

- **Continuous performance decline** - Out of a maximum 500, Class 3 students scored an average of 323 in language and 306 in Mathematics.

- By Class 5, the scores dropped to 309 and 284 respectively, and to 302 and 255 by Class 8.

- **Non implementation of CCE** - Efforts to introduce a CCE programme instead were largely stymied by a lack of resources and training, and teacher apathy.

- **High failure rate** - Failure rate in class 10 and 12, ranges from 12% in national boards to 18% in State boards.

A government analysis of Classes 10 and 12 results across 59 State and national boards in 2023 showed that more than 65 lakh students had failed to clear their examinations.

What can be done?

- Better mechanisms to assess children's learning and hold teachers accountable must be created.

- There must be regular assessment done at the school level in every class, not at the board level.

- Specialised inputs need to be provided by the teacher after identifying the learning gaps at various stages of assessment.

- School Head must personally monitor the progress of the children who are held back.

- Rigorous teacher appraisal is needed to ensure inclusive teaching.

## 5.2 10 years of Beti Bachao, Beti Padhao

Why in News?

Marking 10 years of the Beti Bachao Beti Padhao movement, the Prime Minister has highlighted the instrumentality of the scheme in overcoming gender biases and empowering girl children.

What is Beti Bachao, Beti Padhao?

- **Launch** - In 2015, the Beti Bachao, Beti Padhao (BBBP) scheme was launched to address concerns about gender discrimination and women empowerment in the country.

- The name Beti Bachao, Beti Padhao translates to 'Save the girl child, educate the girl child'.

- **Objectives**

    o Improve the child sex ratio

    o Ensure gender equality and women empowerment

    o Prevent gender-biased, sex-selective elimination

    o Ensure survival and protection of the girl child

    o Encourage education and participation of the girl child

- **Three components**
    - Advocacy campaigns - To address the issue of declining CSR and SBR.
    - Multi-sectoral interventions - To be implemented in gender-critical districts across the country.
    - Sukanya Samriddhi scheme— A financial incentive-linked scheme to encourage parents to build a fund for female children.
- **Tri-ministerial initiative** – BBBP is run jointly by the
    - **Ministry of Women & Child Development (MoWCD)**- Budgetary control and administration
    - **Ministry of Health & Family Welfare (MoH&FW)** - Capacity building and quality control
    - **Ministry of Human Resources Development (MoHRD)** - Community engagement programmes.
- **Implementation** - Programmes and interventions designed to incentivise improvements in the CSR and SRB ratios are being implemented in the shortlisted gender-critical districts.
- The scheme outlines measurable outcomes and indicators to monitor progress in these 640 districts.
- **Eligibility** - The family should have a girl child below 10 years of age.
- There should be a Sukanya Samriddhi Account or SSA which has been opened in any Indian bank, in the name of the girl child in the family.

Performance targets
- Improve SRB in select gender-critical districts by 2 points per year
- Reduce gender differentials in the under-five child mortality rate metric by 1.5 points per year
- Increase first trimester antenatal care registration by 1% per year
- Provide functional toilets for girls in every school in select districts
- Improve nutritional status by reducing the number of underweight and anaemic girls (under five years of age)

- The girl child should be a resident Indian and NRI citizens do not possess eligibility for the BBBP scheme.
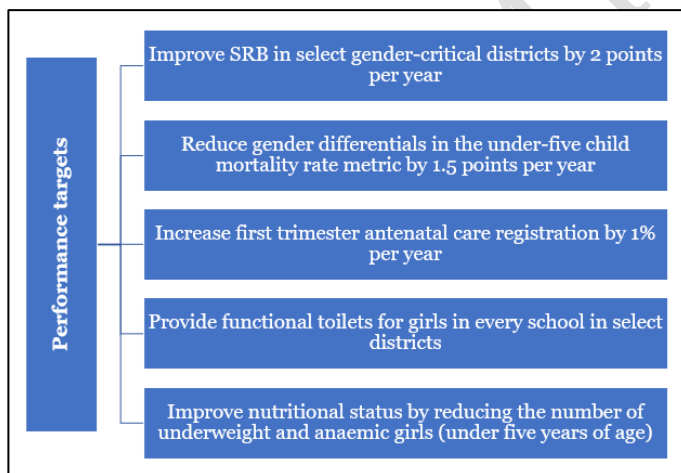
BBBP initiatives undertaken by districts
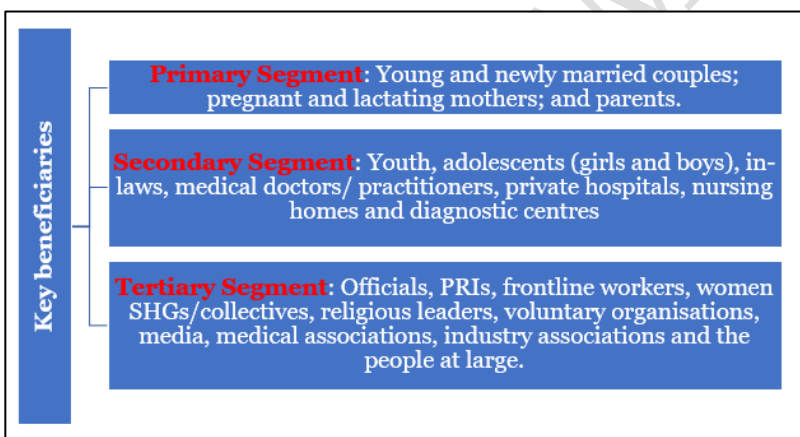
BBBP initiatives undertaken by districts	
Digital Guddi-Gudda Board	• Jalgaon district Maharashtra • A digital platform for exhibiting gender disparity in birth rates and providing information on schemes and programmes created for safeguarding the girl child
Udaan- Sapneya Di Duniya De Rubaru	• Mansa district in Punjab • Udaan- Live your Dream For One Day • Girls in classes VI- XII can spend a day with a professional they aspire to be.
My Aim My Target Campaign	• Recognition programme to felicitate top academic performances by girls in higher secondary schools
Lakshya Se Rubaru	• Internship programme for female students in colleges
Noor Jeevan Ka Betiyan	• Udhampur, Jammu&Kashmir • A week-long campaign celebrated with gender empowerment theme-based interactive activities organised in Panchayats, schools, and colleges
Bitiya and Birba	• Rewa, Madhya Pradesh • Awareness campaign along with environmental protection. • Each mother of a newly born girl child is celebrated and honored with a plant

- **Obesity** - Overweight had increased in children in almost all countries but was less than the prevailing undernutrition.

- **Aneamia in India** - The prevalence of anaemia has remained static in India for the last two decades.

Why is there a slow progress in nutritional health?

- **Poor programme implementation** – Ground level implementation of nutrition programs are either inadequate and do not reach bottom strata.

- **Inadequate survey** - With no national surveys, we do not know the cause of anaemia in India.

- **Incorrect policies** – Cause of anaemia is presumed to be iron deficiency, resulting in policies to improve dietary iron intake through fortification and supplementation.

Global Nutrition Targets 2025

Stunting
TARGET: 40% reduction in the number of children under-5 who are stunted

Anaemia
TARGET: 50% reduction of anaemia in women of reproductive age

Low birth weight
TARGET: 30% reduction in low birth weight

Childhood overweight
TARGET: No increase in childhood overweight

Breastfeeding
TARGET: Increase the rate of exclusive breastfeeding in the first 6 months up to at least 50%

Wasting
TARGET: Reduce and maintain childhood wasting to less than 5%

- But recent large-scale surveys reveal that iron deficiency accounts for only a third of anaemia, while unknown causes account for another significant third.

- **Early onset of deficiency** - Stunting actively occurs within the first two years of life and increases from about 7-8% at birth to near 40% at two years of age.

- **Inadequate energy intake** - Average fat intake of poor children in India is only 7 grams per day, versus the requirement of 30-40 grams per day.
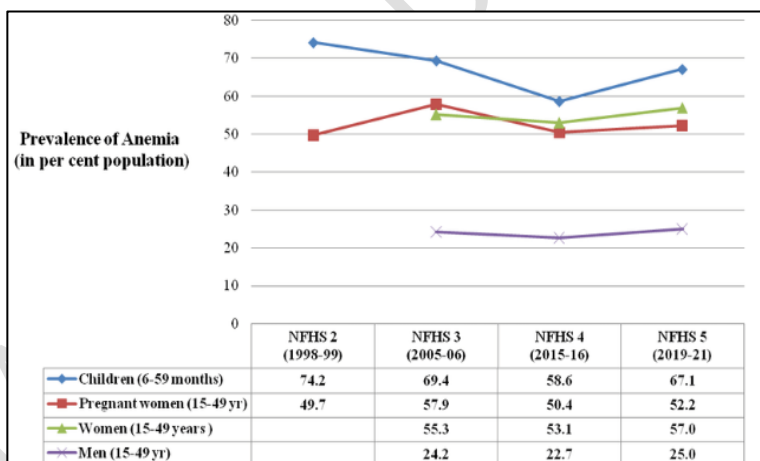
- **Differences in measurement** - Venous blood-based anaemia prevalence (as recommended by WHO) was roughly half the capillary blood-based prevalence.

- **Singular approach** - Same cut-off criteria for anaemia might not fit all populations.

- **Metabolic risks** - It occurs in about no less than 50% of Indian children aged 5-19 years, even in those stunted and underweight.

Prevalence of Anemia (in per cent population)

	NFHS 2 (1998-99)	NFHS 3 (2005-06)	NFHS 4 (2015-16)	NFHS 5 (2019-21)
Children (6-59 months)	74.2	69.4	58.6	67.1
Pregnant women (15-49 yr)	49.7	57.9	50.4	52.2
Women (15-49 years)		55.3	53.1	57.0
Men (15-49 yr)		24.2	22.7	25.0

What can be done to improve nutritional health?

- Focus on double duty actions to simultaneously address the under- and over-nutrition burden.

- Diversifying diets effectively rather than focusing on select nutrient deficiencies.

- Accurate metrics are crucial for successful public health interventions.

- Prevention in the first two years is most important, even though the global nutrition target refers to stunting in under-5 children.

- Make burden of childhood overnutrition an important policy target to address overweight.

> *On average, children reach half their adult height in **two years**. If already stunted at two, it is difficult to un-stunt children by overfeeding in the hope of faster growth.*

> ***Energy** intake is the driver of growth in the first two years and the most energy-dense food is oil.*

6.2 Transforming Healthcare through Digitalization

Why in News?

Recently, a World Economic Forum (WEF) article highlighted India's potential to become a global leader in digital health by building a resilient digital health ecosystem.

What are the features of India's digital health initiatives?

- Digital health solutions are playing a crucial role in enhancing accessibility, affordability, and efficiency of health services.

- **Interoperability and standardization** - Ensuring seamless data exchange between stakeholders.

- **Public-Private collaboration** - Encouraging partnerships for innovation and expansion.

- **Focus on affordability and accessibility** - Leveraging digital tools to make healthcare inclusive.

- **Global influence** - India's digital health models could serve as templates for other developing nations.

What are India's digital healthcare infrastructures?

- **Ayushman Bharat Digital Mission (ABDM)** – It aims to create a nationwide digital health ecosystem by integrating healthcare service providers and patients through unique health IDs.

- The mission fills critical gaps in health infrastructure, surveillance and health research through,

    - **Health ID** – ABHA number a unique identifier for individuals to store and share medical records.

    - **Healthcare Professionals Registry (HPR)** - A comprehensive database of registered healthcare professionals.

    - **Health Facility Registry (HFR)** - A digital repository of healthcare facilities across India.

    - **Unified Health Interface (UHI)** - An open network facilitating digital health service

> As on January 20, 2025, more than 73 crore **Ayushman Bharat Health Accounts (ABHA)** have been created successfully and there are more than 5 lakh health professionals registered.
> **Uttar Pradesh, Rajasthan, Maharashtra, Madhya Pradesh and Gujarat** are the top 5 states with Ayushman Bharat account holders.

- **Arogya Mandirs** - Over two lakh Ayushman Arogya Mandirs have been established across the country to facilitate early diagnosis and treatment.

- **Digital Health Incentive Scheme (DHIS)** – It encourages healthcare providers to adopt digital health solutions by offering financial incentives for integrating digital health records and services.

- **Telemedicine and e-Sanjeevani** – It enables remote consultations, reducing the burden on physical healthcare facilities.

- The platform consists of two modules.

    - **e-Sanjeevani OPD** - Facilitating doctor-to-patient consultations remotely.

    - **e-Sanjeevani AB-HWC** - Connecting Health and Wellness Centers (HWCs) with specialist doctors for better healthcare accessibility in remote areas.

- **U-WIN Portal** – It was launched in October 2024 for the complete digitization of vaccination services, and maintaining vaccination records for pregnant women and children from birth to 17 years under the Universal Immunization Programme.

- **Aarogya setu** – It has been transformed into a National Health App, bringing a whole plethora of digital health services powered by the ABDM.

- **e-Hospital** - It is a Hospital Management Information System (HMIS) for internal workflows and processes of hospitals.

- This one-stop solution helps in connecting patients, hospitals and doctors on a single digital platform.

- It is made available to Central Government/ State Government/ Autonomous/ Cooperative hospitals on the cloud through the SaaS (Software as a Service) model.

- **e-BloodBank** – It facilitates the implementation of a complete blood bank management system.

- **Online Registration System (ORS)** - It provides online access to hospital services for patients, integrated with the Ayushman Bharat Health Account.
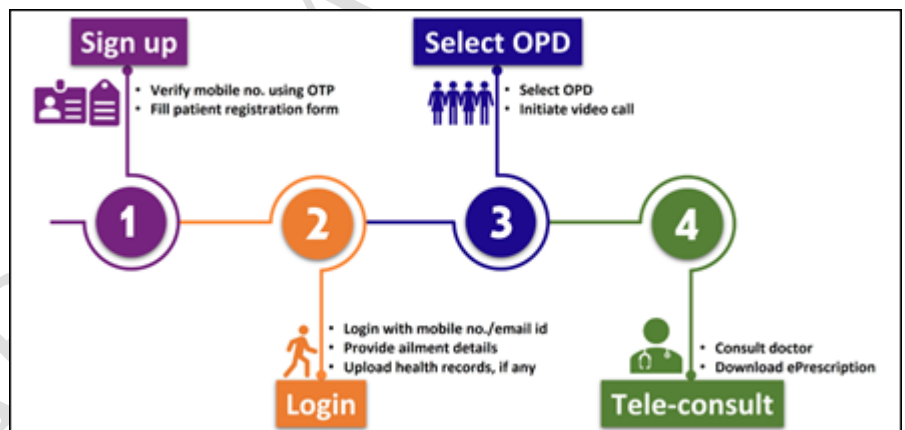
- **Tele MANAS** – It is a National Tele Mental Health Programme to improve access to quality mental health counselling and care services in the country.

What are the key policies shaping digital healthcare in India?

- **National Health Policy (NHP) 2017** - It emphasizes the use of digital technology to enhance healthcare delivery.

- It advocates for electronic health records, health information systems, and telemedicine to improve accessibility and efficiency.

- **National Health Mission (NHM)** – It provides support for improvement in health infrastructure, availability of adequate human resources in health facilities.

- **Health Data Management Policy** – It is the critical component of ABDM, this policy outlines data privacy, security, and governance standards for digital health records.

- **National Digital Health Mission (NDHM)** – It aims to make India Atma Nirbhar in providing universal health coverage to all the citizens in the country.

- **National Digital Health Blueprint (NDHB)** – It serves as a strategic roadmap for achieving universal health coverage through digital health integration.

- **PM-ABHIM** - Pradhan Mantri Ayushman Bharat Health Infrastructure Mission focuses on strengthening primary, secondary, and tertiary healthcare infrastructure, integrating digital health technologies to improve service delivery.

- It is the largest Pan-India scheme for public health infrastructure since 2005.

What lies ahead?

- India's digital healthcare transformation holds immense potential to enhance healthcare accessibility and efficiency.

- With continued policy support, infrastructure development, and public-private collaborations, the country is poised to emerge as a global leader in digital health.

- Future focus areas include AI-driven diagnostics, blockchain-based health records, and enhanced cybersecurity frameworks.

6.3 Bridging Milk Divide for a Nutritionally Secure India

Why In news?

India's milk consumption varies greatly by income and region, impacting nutrition security and affordability.

What are Key highlights of the article?

- **Milk Consumption Disparities -** Household Milk Consumption

- Higher income groups consume 3–4 times more milk per capita than lower income groups.

- The poorest 30% of households consume only 18% of India's milk.

- Urban areas consume 30% more milk than rural areas.

- Rajasthan, Punjab, and Haryana consume over 300g per day, while Odisha, Chhattisgarh, and West Bengal consume less than 171g per day.

- **Challenges in Milk Access -** Affordability is a key issue; 70% of Indian households would spend 10–30% of monthly food costs to meet the 300g/day intake.

- Affluent urban households overconsume, leading to obesity and health issues.

- Social groups like Scheduled Tribes have the lowest milk consumption.

- **Milk Macronutrients and Micronutrients**- High-quality proteins like casein and whey for muscle development and repair.
- Calcium essential for bone health and osteoporosis prevention.
- Vitamins A, D, B12 for immune function and energy metabolism.
- Essential fatty acids for brain development.
- Natural sugar, lactose.

What are Impact of Malnutrition and Undernutrition Due to Milk Deficits?

- **Nutrient Deficits Impact on Children**- Impaired growth due to lack of essential nutrients.
- **Weakened immunity** - Due to increased infection susceptibility.
- **Cognitive impairment -** Affecting brain development and learning abilities.
- **Maternal Health and Economic Impact of Malnutrition -** Risks maternal health complications & Decreases productivity and increases healthcare costs.

What is the Link between Overconsumption of High-Fat Dairy and Obesity?

- **Caloric Surplus -** Excessive intake of *__high-fat dairy products__* can contribute to weight gain**.**
- **Saturated Fats -** High consumption may increase the risk of *__cardiovascular diseases.__*
- **Lifestyle Factors -** Sedentary habits combined with high dairy consumption exacerbate obesity risks.

India's Dairy Sector – Key Statistics

- India ranks *__1st in global milk production__*, contributing 24% of total global milk.
- Milk production: 230.58 million tonnes (2022-23).
- **Per capita milk availability -** 459 grams/day**,** higher than the global average of 323 grams/day.
- Dairy sector contributes 5% to India's economy and supports over 8 crore farmers, mostly women.

White Revolution & Dairy Industry in India

- **Verghese Kurien -** Known as the '*__Father of the White__* Revolution' in India, he was instrumental in transforming India's dairy industry.
- **Operation Flood -** Launched in 1970, it was the world's largest dairy development program aimed at creating a nationwide milk grid.
- **Objectives -** Increase milk production, augment rural incomes, and provide fair prices for consumers.
- **Impact** - Elevated India from a milk-deficient nation to the world's largest milk producer.
- **Cooperative Movement -** Empowered millions of rural dairy farmers through cooperative societies.
- **National Milk Day -** Celebrated on November 26
- Marks the birth anniversary of Dr. Verghese Kurien, the "Father of White Revolution."
- Organized by the *__Department of Animal Husbandry and Dairying (DAHD),__* Ministry of Fisheries, Animal Husbandry & Dairying.
- **National Dairy Development Board -** It is a statutory body**.** It was declared an institution of national importance by the National Dairy Development Board Act, 1987.
- **Primary Objective -** To promote, finance, and support producer-owned and controlled organizations in the dairy sector.
- It operates under the administrative control of the *__Ministry of Fisheries, Animal Husbandry and Dairy.__*

What are the Challenges in the Indian Dairy Industry?

- **Fragmented Supply Chains -** Inefficient milk collection, processing, and distribution.
- **Low Productivity -** Poor nutrition, breeding, and veterinary care reduce milk yield.
- **Fodder Shortage -** Climate change and urbanization limit cattle feed availability.
- **Limited Credit Access -** Small farmers struggle to get loans for better infrastructure
- **Milk Quality Issues -** Adulteration and lack of proper testing facilities.

What are the Scope?

- **Improve Animal Productivity -**Better breeding, nutrition, and veterinary care
- **Sex Sorted Semen technology** to increase adoption from 35% to 70% for better cattle breeding
- Free vaccinations for Foot and Mouth Disease (FMD) and **Brucellosis**, with a target to eliminate them by 2030.
- **Address Fodder Shortage -** Promote high-yield fodder crops and sustainable feeding.
- **Increase Credit Access**- Provide easy loans through microfinance and government schemes.
- **Ensure Quality Control -** Set up more milk testing labs and enforce safety standards.
- **Strengthen Cooperatives -**Organize farmers for better pricing and supply chain management. Gujarat cooperative model

Policy Measures

- **PM POSHAN (Mid-Day Meal Scheme) -** Provides nutritious meals to school children, including milk.
- Central sponsor schemes under ***National Food Security Act, 2013.***
- **Integrated Child Development Services -** Improves maternal and child health through nutrition support.
- Provides milk and dairy products to pregnant women, lactating mothers, and children under 6.
- **Rashtriya Gokul Mission -** Improves indigenous cattle breeds for better milk production.
- Supports farmers with high-yield breeds and better dairy infrastructure.
- **National Dairy Development Programme -**Strengthens dairy cooperatives and improves milk distribution.

What Lies ahead?

- Strengthen veterinary services, promote vaccination programs, enhance disease surveillance, and early detection systems for livestock, formulate supportive policies, and provide incentives for animal husbandry and dairying investments.
- Enhance ICDS and Anganwadi services by monitoring nutrition, providing counseling, and offering balanced food.

7. INTERNATIONAL RELATIONS

7.1   India US Civil Nuclear Deal

Why in News?

Recently National Security Adviser of United States Jake Sullivan announced that Washington was finalising steps to "remove" hurdles for civil nuclear partnership between Indian and American firms.

What is the US India civil nuclear deal?

- **Origin** - India and the U.S. unveiled an ambitious plan to cooperate in civil nuclear energy in July 2005.

- **Signed** - The historic civil nuclear agreement was finally sealed in ***2008*** later following a series of negotiations.

> *The framework for this agreement was a July 18, 2005, joint statement by then Indian Prime Minister Manmohan Singh and then U.S. President George W. Bush.*

- **123 Agreement** - It is also known as 123 Agreement as the deal was signed under section 123 of the United States Atomic Energy Act of 1954.

- **Features of the deal**
  - India agreed to separate its civil and military nuclear facilities and to place all its civil nuclear facilities under International Atomic Energy Agency (IAEA) safeguards.
  - United States agreed to work toward full civil nuclear cooperation with India.

What are the benefits of the deal?

- **Enables nuclear trade** – The deal will enable India to secure more resilient critical minerals and clean energy supply chains from the USA.
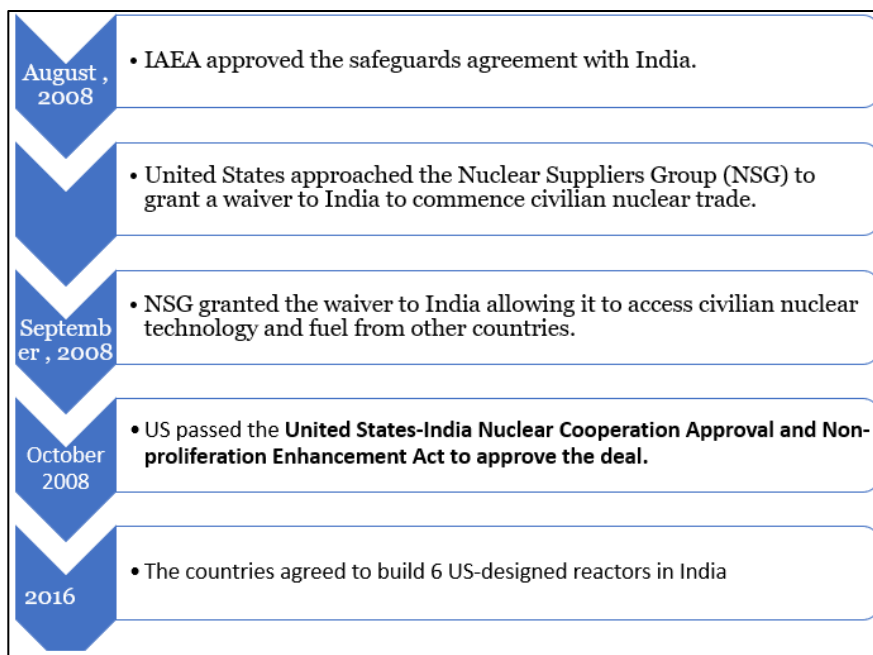
- **Reduces "Entity List" restriction** - After the U.S.-India civil nuclear deal, all but a handful of Indian companies dealing with nuclear matters were removed from the list.

- **Facilitates technology cooperation** – The deal was expected to pave the way for allowing the U.S. to share civilian nuclear technology with India.

- **Augmentation of Indian civil nuclear sector** - Many nuclear plants will be built using U.S. equipment, technology, and allied services.

- **Increased electricity production** - More electricity would be generated by plants to fuel Indian industry and benefit the average Indian.

- **Climate change mitigation** - Nuclear energy would not generate greenhouse gases and help wean India away from an over-reliance on climate changing, and often toxic, fossil fuels.

Date	Event
August, 2008	• IAEA approved the safeguards agreement with India.
	• United States approached the Nuclear Suppliers Group (NSG) to grant a waiver to India to commence civilian nuclear trade.
September, 2008	• NSG granted the waiver to India allowing it to access civilian nuclear technology and fuel from other countries.
October 2008	• US passed the **United States-India Nuclear Cooperation Approval and Non-proliferation Enhancement Act to approve the deal.**
2016	• The countries agreed to build 6 US-designed reactors in India

- **Employment growth** - Employment opportunities would be created both in the U.S. and India.

- **Improves India US relationship** – Successful implementation of the deal will improve the "***Comprehensive global strategic partnership of India -US***".

> *The NSG waiver made India the only known country with nuclear weapons which is not a party to the Non-Proliferation Treaty (NPT) but is still allowed to carry out nuclear commerce with the rest of the world.*

What are the challenges in implementing the deal?

- **Non implementation** - Even though U.S. President Barack Obama announced in 2016 that Westinghouse would build six new nuclear plants in India, this has not happened yet.

- Energy and commercial promises of the U.S.-India deal have never been fulfilled.

- **US regulatory challenges** – Stringent US regulations are preventing civil nuclear cooperation between India's leading nuclear entities and U.S. companies.

> *U.S. companies are prohibited from doing business with companies on the "Entity List" unless a special licence is granted.*

- **"Entity List" restriction** - At the conclusion of the civil nuclear deal in 2008, there were approximately 200 Indian entities on the so-called "Entity List" kept by the U.S. Department of Commerce.

- **Licensing challenges** – The licences for doing business with "Entity List" companies are seldom granted.

- **India Russia relationship** – Defence and energy related Indian companies that have relationship with Russian entities are kept in the "Entity List" and are not granted license engage with US companies.

- **Changed US administration** – The new administration change in USA might affect the terms of conditions under the deal.

> *Recently three entities are Bhabha Atomic Research Centre (BARC), Indira Gandhi Atomic Research Centre (IGCAR) and the Indian Rare Earths (IRE) are removed from the "Entity list".*

- **Liability risks** - In 2010, India enacted the Civil Liability for Nuclear Damage Act, placing major liability obligations not on the operators of a civil nuclear facility but on the suppliers.

- Neither of the major U.S. suppliers, GE and Westinghouse, was willing to assume these liability risks.

- **Technology hurdles** - Since the conclusion of the deal, civil nuclear technology has evolved rapidly and U.S. companies are reluctant in transferring the latest technology.

- **Cost overruns** - This technology and its implementing equipment must be offered at a reasonable price that will not increase electricity costs to the Indian consumer.

What can be done?

- Ameliorate liability concerns for nuclear damages by engaging in dialogue with stakeholders.

- Build confidence with the new government to facilitate the tech transfer and affordable cost.

- Engage in dialogue with US authorities to remove Indian research and development companies from "Entity List".

> *Through India's public sector General Insurance Corporation, and four other government companies, a 20-year insurance premium would be charged to cover the supplier's liability for an accident.*

7.2 India – U.S Ties on Indo-Pacific Region

Why in news?

Donald Trump's inauguration as US President is a significant event in American political history and global geopolitics, especially in the Indo-Pacific region.

What is Indo-Pacific region?

- The ***Indo-Pacific region*** is a geostrategic area encompassing the Indian and Pacific Oceans, bordering countries, ***East Asia, Southeast Asia, South Asia, and parts of Oceania,*** including key regions.

Indo-Pacific Nations Overview

- **East Asia -** China, Japan, South Korea, Taiwan

- **Southeast Asia -** Indonesia, Thailand, Malaysia, Vietnam, Philippines.

- **South Asia-** India, Sri Lanka, Bangladesh.

- **Oceania -** Australia, New Zealand, Pacific Island nations.

- **Other Stakeholders -**US, European nations for strategic interests.

What are the significance of the Indo-Pacific Region?

- **Hosts world's largest economies**- China, India, and Japan. Contains vital global trade routes like the South China Sea and Strait of Malacca.

- **Rich in natural resources** - Fisheries, energy reserves, and minerals.

- **Strategic Importance** - Center of power competition, especially between the U.S. and China. Home to major military flashpoints.

- Focuses on countering security challenges and promoting a free, open, rules-based Indo-Pacific.

- **Maritime Security** - Priorities include ensuring freedom of navigation and addressing piracy, illegal fishing, and environmental threats.

- **Technological and Political Dynamics** - Hub for technological innovation and infrastructure development.

- Nations often align with U.S. or China in strategic alliances

What are the Major Agreements and Frameworks for the Indo-Pacific?

Free and Open Indo-Pacific (FOIP)

- **Origin** - Proposed by Japan, adopted by US.

- **Core Principles** - Promote free, open, rules-based order.

- Commitment to freedom of navigation and overflight in international water.

- Ensures sovereignty and territorial integrity.
- Addresses disputes peacefully under international law (UNCLOS)

Indo-Pacific Economic Framework (IPEF)

- **Launched -** In 2022 by the US.
- **Involves 14 countries**- India, Japan, Australia & Southeast Asia.
- **Key Pillars**- Trade, Supply Chain Resilience, Clean Energy, Decarbonization, Taxation, Anti-Corruption.
- **Aims** - To establish modern economic framework without traditional free trade agreement.

Quad Security Dialogue

- **Members -** US, India, Japan, Australia.
- **Aims** - To counter China's influence.
- **Key focus areas** -Maritime security, infrastructure, vaccine production, cybersecurity, critical technologies, climate change.

ASEAN Outlook on Indo-Pacific (AOIP)

- **Initiated**- By Association of Southeast Asian Nations (ASEAN).
- **Focus areas** - Maritime, connectivity, sustainable development.
- **Aligns**- With international laws like UNCLOS.
- **Significance** - Encourages a central role for ASEAN amid U.S.-China rivalry.

Bilateral and Multilateral Agreements

- **AUKUS** - A trilateral security pact between Australia, the United Kingdom, and the United States, focusing on defense technology, including nuclear-powered submarines.
- **India-Japan-Australia Supply Chain Resilience Initiative (SCRI)** - Aimed at reducing dependency on China by diversifying supply chains in critical industries.

What is India's Role in Indo-Pacific Cooperation?

- **Participated in Quad** - (Quadrilateral Security Dialogue) with members from India, U.S., Japan, and Australia.
- **Advocates peaceful initiatives -** While countering aggressive regional postures.
- **Aligns with ASEAN's Outlook on** - The Indo-Pacific (AOIP) for inclusivity and cooperation.
- **Secures critical sea**- Lanes for global trade and operates Information Fusion Centre (IFC-IOR).
- **Collaborates** - With Japan, Australia, and U.S. on infrastructure, maritime security, renewable energy, defense ties, and IPEF cooperation.

U.S. Strategy in Indo-Pacific: Key Pillars

- **Rules-Based Order** - Advocates for freedom of navigation and peaceful dispute resolution under international law.
- **Strengthening Alliances** -Focuses on security, infrastructure, and emerging technologies.
- **Countering China** - Opposes militarization of the South China Sea and BRI.
- **Economic Engagement** - Builds resilient supply chains, clean energy, and fair trade practices through IPEF.
- **Security and Defense**- Advances defense through AUKUS and increased naval deployments.
- **Sustainable Development**- Promotes climate adaptation, sustainable energy, and transparent infrastructure projects.

Major Initiatives

- **Free and Open Indo-Pacific (FOIP)** - Ensures transparency and sovereignty through partnerships with Quad nations.
- **Blue Dot Network** - Certifies sustainable infrastructure with Japan and Australia.
- **Malabar Exercises** - Naval drills with Quad members for maritime security.

What are the Major Challenges In Indo-Pacific?

- **Geopolitical Tensions**- China's rise raises territorial disputes, freedom of navigation, and military build-ups. Territorial disputes between China and neighboring countries remain unresolved.

- **Security Concerns-** Military rivalries, nuclear proliferation ((notably North Korea) and terrorism and extremism.

- **Economic Disparities and Competition-** Rapidly growing economies and significant poverty. Trade disruptions like the U.S.-China trade war.

- **Climate Change** - Rising sea levels, extreme weather, and environmental degradation threaten infrastructure and biodiversity.

- **Human Rights and Governance**- Criticism for human rights violations and ongoing humanitarian crises.

- **Regional Cooperation and Multilateralism -** Competing alliances like the U.S.-led Quad and China's SCO increase regional tensions.

- **Technology and Cybersecurity -**Cybersecurity threats and competition in 5G and AI.

What lies ahead?

- The Indo-Pacific region is crucial for global stability, security, and prosperity.

- Addressing its challenges requires a comprehensive, collaborative approach, including diplomacy, multilateral cooperation, and investment in sustainable development and technology, balancing competing interests and promoting peace and mutual growth.

7.3	Donald Trump's Mass Deportation Policy

Why in News?

The U.S.-Colombia economic and diplomatic impasse arises from forced deportations and Trump's confrontational tactics, rather promoting a more diplomatic strategy for addressing migration.

What is Trump's Deportation Policies?

- **Mass Deportations -** Targeting undocumented migrants, especially from Latin America, under strict immigration policies.

- **Use of Military Planes -** Deportations often involved military aircraft, leading to diplomatic tensions with countries like Colombia and Brazil.

- **Strict Border Controls-** Policies such as "Remain in Mexico" and increased border wall construction implemented to curb illegal migration.

- **Family Separation Policy-** Led to the separation of migrant children from their parents, drawing criticism from human rights organizations**.**

- **Sanctions and Pressure on Other Nations -** Countries refusing to accept deported migrants faced economic and diplomatic pressure, including tariffs and aid cuts.

What are Global Impact of Deportation Policy?

- **Strained Diplomatic Relations** – Countries like Colombia and Mexico opposed Trump's deportation methods, leading to diplomatic conflicts.

- **Economic Fallout** - High tariffs and trade restrictions on nations resisting deportations disrupted global trade, affecting businesses in both the U.S. and partner countries.

- **Human Rights Concerns** - Reports of mistreatment of deported migrants, including handcuffing and lack of basic amenities, led to criticism from international human rights organizations.

- **Impact on Refugee Policies** - Countries revisited their own immigration policies, with some tightening restrictions due to U.S. pressure.

- **Rise in Illegal Crossings** - Stricter deportation measures did not entirely deter migration; instead, they fueled more dangerous illegal crossings.

What are the Policy Impact on India?

- Among the illegal migrants in *U.S, 1.Mexico 2.El Salvador & India ranks 3ʳᵈ .*

- **Visa Restrictions on Indian Migrants -** May affected Indian ***workers and students seeking U.S. visas***.

- **Impact on Indian IT Sector -**The H-1B visa restrictions and deportations disrupted the IT industry, affecting Indian professionals.

- **Repatriation of Indians -** Undocumented Indian migrants faced deportation, raising concerns over their safety and reintegration.

- **Trade Relations with the U.S.** - Tariffs and immigration tensions impacted India-U.S. trade negotiations, especially in technology and services sectors.

- **Policy Influence on India**: The U.S. approach influenced India's immigration policies, leading to stricter monitoring of illegal migration.

What is the Difference between Migrants & Refugees?

- **Migrant -** According to International Organization for Migration

- A migrant is any person who moves across an international border or within a state away from their habitual place of residence, regardless of

- The person's legal status;

- The voluntary or involuntary nature of movement;

- The causes of movement; or

- The length of stay."

> **Refugee Definition under the 1951 Refugee Convention**
> *"A person who has a strong fear of being persecuted for their race, religion, nationality, social group, or political opinion, is outside their home country and cannot or does not want to seek protection from it."*

What are the Agreements to Protect Refugees?

1951 Refugee Convention

- Establish rights of refugees and obligations of host countries for protection.

- **Established** – in 1951, under the ***UN framework.***

- Defines who is a ***refugee and their legal rights***.

- Establishes ***non refoulement principle*** (no forced return to danger).

- Outlines refugees' rights to work, education, and legal protection.

- Requires states to cooperate with the UNHCR.

- Initially limited to post ***WWII refugees in*** Europe, later expanded by the 1967 Protocol.

1967 Protocol on Refugee Status

> *India is **not a signatory** but provides asylum to many refugee groups under national policies.*

- It seeks to remove geographical and time limits from the 1951 Refugee Convention, providing protections to refugees outside Europe and from after WWII.

- It eliminates the original time limit and requires signatory states to ensure refugee rights. ***India is not a signatory but addresses refugee protection individually.***

What are the Global Compact on Refugees (2018)?

- Aims to provide a ***non-binding framework*** for equitable refugee protection.

- Formed in 2018, adopted by UN.

- Focuses on supporting host countries through shared ***international responsibility.***

- Encourages ***economic and social inclusion*** of refugees.

- Enhances refugee self-reliance through ***education and employment***.

- Strengthens international cooperation and funding for refugee crises.

- Aims to create conditions for voluntary return and resettlement in safety.

What lies ahead?

- It's crucial to understand legal immigration pathways and the risks of irregular migration as U. S. policies change. Indian nationals should stay informed and cautious.

UN High Commissioner for Refugees
• **Aim -** To protect and assist refugees and stateless persons globally.
• **Formed** - 1950
• **Features -** Provides ***legal and humanitarian aid*** to refugees.
• Works with governments to establish asylum policies.
• Monitors compliance with international refugee laws.
• Helps in voluntary repatriation, local integration, or resettlement.
• Responds to emergency refugee crises worldwide.
• India cooperates with UNHCR but does not grant refugees official legal status under national law.

7.4   Recent Developments in India - China Relations

Why in News?

India and China are communicating again instead of ignoring each other. This raises the question of whether they will return to their pre-Galwan "normal" relationship or if tensions will rise again.

What are the India's Engagements with China?

- **Engagement & Confidence Building (1988–2019)**
  - **1993 & 1996** - Agreements for peace along LAC.
  - **2003** - India recognized Tibet, China accepted Sikkim.
  - **2005** - Strategic Partnership Agreement signed.
  - **2008 -2019** - Economic ties flourished; China became India's largest trade partner.
- **Border Tensions & Strategic Competition (2020–Present)**
  - **Doklam (2017)** - Standoff over Bhutanese territory.
  - **Galwan (2020)** - Deadliest clash since 1962; 20 Indian soldiers martyred.
  - **Ongoing Standoff** - Military buildup, disengagement talks.
  - **Economic Actions** - India banned ***Chinese apps, tightened FDI*** rules, reduced import dependency.
  - **Geopolitical Competition** - India strengthens Quad ties; China expands in South Asia & Indian Ocean.

What are the Four Pillars Since 1988 in India China Relations?

- **Summitry (Regular Diplomatic Meetings**) - High level meetings between leaders are essential for managing relations.
  - Wuhan Summit (2018) and Mamallapuram Summit (2019) to reduce tensions and increase cooperation.
  - Regular interactions foster direct communication and engagement.
- **Border Negotiations-** Both nations have engaged in talks to resolve territorial disputes.
  - Agreements like the 1993 and 1996 Border Peace Accords aim to maintain peace along the LAC.
  - Special Representatives dialogues and Working Mechanisms address border issues.
- **Confidence Building Measures -** Focus on reducing military tensions and ensuring stability along the LAC.
  - Measures include no use of force policy, military hotlines, and joint military exercises.
  - The 2020 Galwan Clash exposed limitations of CBMs, leading to renewed tensions.

- **People to People (P2P) Ties** - Strengthening cultural, educational, and economic exchanges.

  o Initiatives include tourism, student exchanges, and trade partnerships.

  o P2P ties have weakened due to border conflicts and security concerns post 2020.

What are the Military and Strategic Issues with China?

- **Border Disputes & Military Clashes** – LAC is the de facto border between India and China.

  o **Violent Clash** - In June 2020, resulted in the deaths of 20 Indian soldiers and an undisclosed number of Chinese troops, marking the 1st fatal clash in over 40 years and worsening relations.

  o **December 2022** - Troops clashed near Yangtse in Arunachal Pradesh without fatalities, highlighting ongoing tensions along the LAC.

- **Strategic Military Developments**- China has enhanced border infrastructure with roads, airstrips, and military installations for quick troop mobilization.

  o India is also improving its infrastructure for better defense readiness.

  o **Upgrades to the G219 highway** - running parallel to the LAC, improve military logistics and rapid troop movement in Aksai Chin.

  o **Advancements in military technology** – by china includes new generation warplanes, raise concerns in India about the growing strategic gap.

- **Diplomatic Engagements & Confidence** - Diplomatic talks are held to reduce tensions; recent meetings stressed mutual support, but the border dispute remains unresolved.

  o **21st Round of India** - China Border Talks (2023) emphasized stability and peace with no major breakthroughs.

  o **Various agreements** - such as the _**2013 Border Defence Cooperation Agreement,**_ are in place to maintain peace, though their effectiveness has been questioned after recent clashes.

- **Geopolitical Dynamics**

- **Alliances and Partnerships** - India's involvement in groupings like the Quad (U.S., Japan, Australia & India) is viewed by China with suspicion, while China's Belt and Road Initiative and its ties with Pakistan are concerns for India.

- **Trade Relations** - Despite strategic tensions, bilateral trade has grown, with China being 1 of India's largest trading partners.

  o However, trade imbalances and security concerns have led India to implement measures such as banning certain Chinese apps and tightening foreign direct investment regulations.

  o _**Example - Tightened FDI Rules (2020)**_

- India made government approval mandatory for FDI from countries sharing land borders, primarily targeting Chinese investments in Indian tech startups.

What are the Measures to Improve Indo-China relations?

- **Wuhan (2018) and Mamallapuram (2019)** - Summits helped ease tensions. Expanding such summits to include mid-level officials could enhance communication.

- **Border Peace Agreements** - 1993 & 1996 maintained LAC peace. Strengthening these with technology driven CBMs like shared surveillance could reduce tensions.

- **China a key trading partner for India**- Aiming for balanced trade, reducing the trade deficit, and investing in joint ventures would stabilize relations.

- **Expanding educational exchanges** -tourism, and digital platforms can improve mutual understanding and perceptions.

- **BRICS and SCO**- Can enhance Cooperation & can address global issues like climate change, health, and sustainability.

- **Establishing regular dialogues** - Or multilateral forums on security concerns, including Afghanistan and the South China Sea, can prevent conflicts.

What Lies ahead?

- Since 1988, Indo-China relations have maintained balance through summitry, border negotiations, and confidence-building measures.

- Improving ties requires sustained diplomacy, border resolution, economic and cultural exchanges, and addressing security concerns.

- A stable future can be achieved through mutual respect, cooperation, and peaceful conflict resolution.

G.S PAPER III

8. ECONOMY

8.1   Cross-Border Insolvency Reform

Why in News?

The need for reform of IBC framework to strengthen cross border insolvency framework has recently been emphasized.

What is the cross-border insolvency framework in India?

- **Cross border insolvency** – It is when an insolvent debtor has credit and/or debtors in more than one jurisdiction i.e., in different countries.

- **British era insolvency law** - To address domestic insolvencies, the Indian Insolvency Act of 1848 was introduced as the first insolvency law.

- Presidency-Towns Insolvency Act 1909 and Provincial Insolvency Act, 1920 were created which applied to Calcutta, Bombay, and Madras, and mofussil regions.

- **UNCITRAL Model Law** - Model Law on International Commercial Arbitration was adopted by the United Nations Commission on International Trade Law (UNCITRAL) in 1985.

> *Committees such as the Eradi Committee (2000), Mitra Committee (2001), and Irani Committee (2005) recommended adopting the **UNCITRAL** Model law.*

- **Liberalization era** - In the 1990s, driven by economic liberalisation and the pressures of globalisation, the need for a comprehensive insolvency law became a focus of national discussions.

- **IBC Code** – In 2016, Insolvency and Bankruptcy Code, 2016 (IBC) was created as a consolidated framework to govern insolvency and bankruptcy proceedings for companies, partnership firms, and individuals.

- **Cross border insolvency provisions** - Section 234 of IBC allows the Indian government to enforce IBC provisions in foreign countries through reciprocal agreements.

- Section 235 outlines the procedure for seeking assistance from foreign courts through a letter of request.

What are the needs for cross-border insolvency framework?

- **Growth in international trade and investment** – The cross-border investment saw a sharp rise in the 1970s and 1980s due to

  o   Creation of the Euromarkets

  o   Laxity of capital markets restrictions

  o   Expansion of institutional investors such as mutual funds and pension funds.

- **Economic stability** - A robust insolvency framework can help mitigate the economic impact of cross-border insolvencies by ensuring a smooth resolution process.

- **Attracting foreign investments** - As structured insolvency framework provide legal certainty and protection for businesses; it gives confidence to investors.

- **Facilitating corporate restructuring** – It provided structured and predictable process for dealing with insolvent entities that operate across multiple jurisdictions.

What are the issues with the current framework?

- **Lack of Reciprocal Agreements** - India has not entered into significant bilateral agreements dedicated to the recognition and enforcement of cross-border insolvency proceedings with other countries.

- **Inactive Provisions** - Non-notification of Sections 234 and 235 related by by-laws by the central government is keeping them legally unenforceable.

- **Slow progress on amendments** – Despite recommendations by various technical and joint parliamentary committees, the reform amendment haven't been enacted.

- **Judicial scrutiny** - The need for court approvals increases judicial burden, transaction costs, and delays resolutions, reducing the debtor's asset value.

- **Limited power of NCLT** - Failure to implement Rule 11 of the NCLAT Rules, 2016, for IBC matters, prevents it from exercising jurisdiction to address cross-border insolvency issues.

> *Insolvency Law Committee (2018) and the Cross-Border Insolvency Rules/Regulation Committee (2020) have recommended adopting the UNCITRAL Model Law on Cross-Border Insolvency.*

What can be done to improve the framework?

- Adopt of the Judicial Insolvency Network (JIN) Guidelines (2016) and its Modalities of Court-to-Court Communication (2018)

- Modernise judicial coordination, enhance transparency, and improve efficiency in handling cross-border insolvency matters.

- Expand the powers of the NCLT to resolve challenges and ensure effective management of cross-border insolvency cases.

8.2	MSP Reform

Why in News?

Recently, the Centre has procured record 1.37 mn tonnes of soybean under MSP scheme.

What is MSP?

- **MSP** – Minimum support price for a crop is the price at which the government is supposed to procure/buy that crop from farmers if the market price falls below it.

- **Floor price** - MSPs provide a floor for market prices, and ensure that farmers receive a certain "minimum" remuneration so that their costs of cultivation (and some profit) can be recovered.

- **Introduction** - MSP system was introduced by the Centre with the setting up of the Agricultural Prices Commission (APC) in January 1965.

- **Reason for introduction** – To boost the production of paddy and wheat for which India was import dependent in the 1960s.

- **CACP**- MSP is set by Cabinet Committee on Economic Affairs (CCEA) based on the recommendations of Commission for Agricultural Costs and Prices (CACP).

- It considers the views of State Governments and Central Ministries/Departments concerned and other relevant factors.

- **MSP deciding factors** - CACP considers various factors

  o Cost of production

  o Overall demand-supply situations of various crops in domestic and world markets

  o Domestic and international prices

  o Inter-crop price parity

	Khariff Crops	Rabi Crops	Commercial Crops
1	Paddy Common & Paddy (Grade A)	Wheat	COPRA (Milling and Ball)
2	Jowar (Hybrid) & Jowar (Maldandi)	Barley	JUTE
3	Bajra	Gram	
4	Ragi	Masur (Lentil)	
5	Maize	Rapeseed & Mustard	
6	Tur/Arhar	Safflower	
7	Moong		
8	Urad		
9	Groundnut		
10	Sunflower seed		
11	Soyabean(Yellow)		
12	Sesamum		
13	Nigerseed		
14	Cotton (Medium Staple) & (Long Staple)		

- Terms of trade between agriculture and non-agriculture sector

- Likely effect of price policy on rest of economy

- Minimum of 50 per cent as the margin over the cost of production.

- **MSP Crops** - MSP is given for 22 mandated agricultural crops, including 14 Kharif crops, 6 Rabi crops, and 2 commercial crops.

What is the need for reforming MSP system?

- **Changed condition** - India is food surplus nation now not in the same situation as it was in the mid-1960s as food importing nation.

> *India was importing 10 million tonnes (MT) of wheat in the mid-1960s under PL 480 from the US against rupee payments.*

- **Increasing buffer stocks** - The Food Corporation of India has mountains of rice stocks that are almost three times the buffer stock norms.

- **Expanded MSP basket** - The basket of crops under MSP has expanded over time, largely due to political pressures.

- **Imbalance in production basket** - Surplus rice and wheat is being produced primarily because of open-ended procurement , free power pricing and highly subsidised fertiliser prices.

- **Environmental issues** – Monopoly of wheat ,rice cultivation is leading to groundwater depletion, soil degradation, and greenhouse gas emissions — an ecological disaster.

- **Economic risk**- The competitive populism to give free food, power, or highly subsidised fertilisers, or pocket money in the name of Ladli Behna, is a race to the bottom.

- **Disrupts market forces** – Many a time, governments interventions to control prices, caused messing up the system leading to huge inefficiencies.

- **Inefficiency** - A highly regulated land market, and the pricing of inputs and some outputs (rice and wheat), with massive procurement, is leading to huge inefficiencies in the system.

What reforms can be made?

- **Changing government role** – Government should make sure that markets work well by investing in information symmetry and physical infrastructure.

- **Building efficient value chains** - Bring institutional innovations that minimise the price spread between farmers and consumers.

> *India is the largest exporter of rice in the world.*

- **Promote futures markets and options** - Help farmers make planting decisions based on what future prices are likely to be, rather than basing them on last year's prices.

- **Land reform** - Land markets need to be opened up, starting with land lease markets.

- **Direct benefit transfer** - Given that India has digitalised much of the food system, both at the consumer's end and the farmer's end, it will be much more frugal and efficient to move towards direct cash transfers to targeted beneficiaries, who really deserve support.

- **Subsidy reform** - The aggregate input subsidy support should be provided to needy farmers on a per hectare basis.

- This should be accompanied by freeing up the pricing of food as well as inputs like fertilisers and power.

8.3 India Economic Slowdown

Why in News?

Recently Indian economy has been facing slowdown across major sectors.

What is the recent and projected economic slowdown?

- **Most populous country** – In 2023, India overtook China in becoming the most populous country with 1.42 billion population, as per UN projection.

- **5th largest economy** - India displaced Britain in 2022 as the world's fifth-biggest economy, and by next year it is expected to push aside Germany in fourth spot.

- **GDP growth** – FY 2023-24 is estimated to had a GDP growth of 8.4%, as per NSO Provisional Estimate (PE).

- **Sensex decline** - Benchmark BSE Sensex plunged over 1,000 points recently with investors losing over Rs 12 lakh crore.

Annual GDP Estimates (in Rs. Lakh Crore) and Growth Rates (%) at Constant Prices

- **Rupee depreciation** – The Rupee had hit its historic low of 86.70 against the US dollar in November 2024.

- **GDP fall** - According to the National Statistical Office (NSO), India's real GDP growth for FY 2024-25 is expected to slow to 6.4 %.

Rupee value of One Dollar

- **Investment outflow** - Net foreign direct investment (FDI) inflows to India fell to a 12-year low in the April to October period of this financial year.
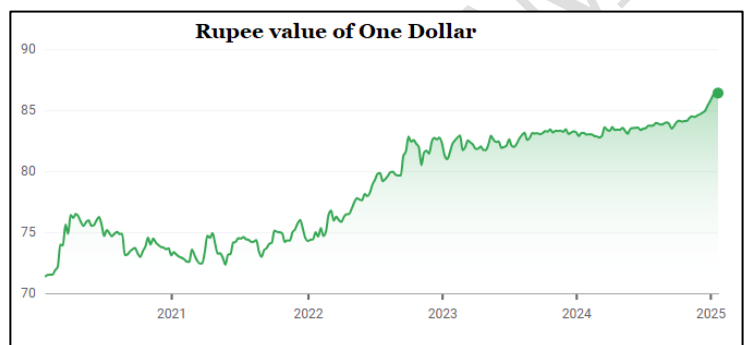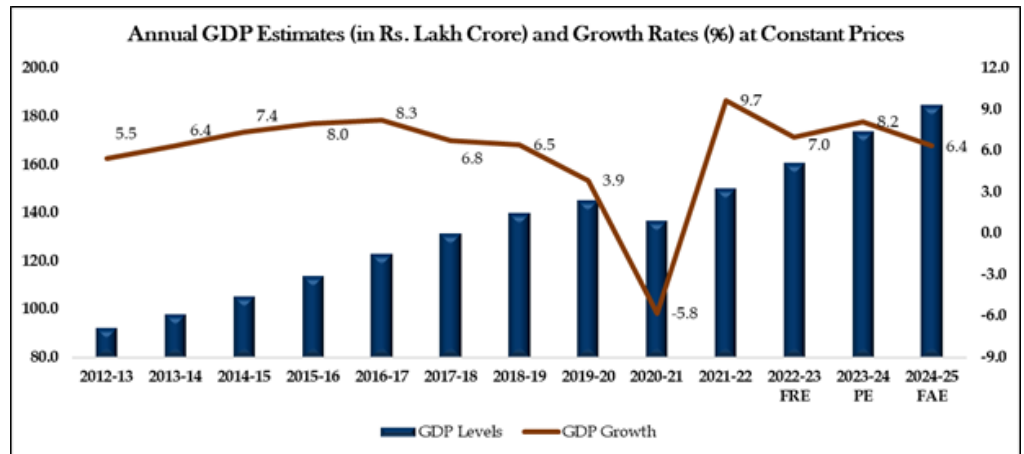
What are the reasons for the slowdown?

- **Demonetization** – The withdrawal of 1000 and 500 rupee denominations from circulation in 2016 had disturbed the unorganized economic sectors.

- **Investment outflow** - Foreign investment has taken the call that the Indian stock market is overvalued.

- **Inadequate job creation** - Between 2019-20 and 2022-23, an average of 26 million jobs were added annually due to an increase in agricultural and services jobs.

- **Inadequate wages** - The national minimum wage in the informal economy is just $2 a day.

- **Inadequate demand** – Unemployment and low wages affects the creation of demand for goods and services.

Number of Indians holding investment accounts went from 22 million to 150 million, in the last decade.

- **Economic inequality** - The top 10% of the Indian population holds 77% of the total national wealth and 73% of the wealth generated in went to the richest 1%.

- 670 million Indians who comprise the poorest half of the population saw only a 1% increase in their wealth, as per Oxfam report.

- **Uncertain global environment** - A strong dollar and suspense over the possibility of sudden policy moves in the United States and China affects the domestic economy.

- **Global head winds** – Conservative government formation in the United States of America and the impending tariff wars.

What lies ahead?

- The government is expected to release a budget for the new fiscal year with tax cuts and putting more money in the hands of consumers.

- Increase in wages over the inflation is essential to drive the savings, demand and investment.

- Expand the credit availability and provide credit at low cost to drive investment.

9. AGRICULTURE

9.1 Agri Tech Innovation

Why in News?

IIIT Bengaluru has been developing a host of projects with the idea of introducing higher efficiency in agricultural processes.

What is Agri Tech?

- **Agri Tech** – It is the use of technology to improve farming and agriculture across different value chains.

- **Need for Agri Tech** - Primarily an agrarian economy, India holds large potential for research and technological innovation in agriculture.

- **Potential** - Innovations in this space is estimated to be around $24 billion.

- **Agri Tech areas**:
  - **Precision farming** - Accurate application of resources like water, fertilisers, and pesticides to increase efficiency and reduced environmental impact.
  - **Online Marketplaces** - Selling fertilisers, seeds, farm tools, and other inputs at online marketplaces and mobile applications.
  - **Data-Driven Farming Solutions** - Predict the supply-demand of inputs based on AI and data-driven decisions to help farmers anticipate challenges, plan better, and ultimately improve their crop yields.
  - **Supply Chain Technology** - Platforms that connect farmers directly with buyers, cutting out middlemen and ensuring a more equitable distribution of profits.

What are the technologies launched by IIITB?

- International Institute of Information Technology Bangalore (IIITB) is premier research Deemed university in Bangalore, India.

- **AutoGrow** - an Autonomous greenhouse System for Precision **Agriculture** for growing food.
  - **Feature** - The system seamlessly integrates biological food production with an IoT/AI-based system
  - Automated greenhouse control of climatic conditions, irrigation, and nutrient supply to plants.
  - **Benefit** - Increasing the efficiency of crop production while using optimal resources and thereby reducing costs.

- **Vertical open field hydroponic system** - It's a non-linear control system where the inputs are continuously monitored, and the required amount of nutrition is administered.

- It is a control system realized with sensors and AI-ML algorithms.

- **Smart Greenhouse Monitoring System** - To transform greenhouse farming by leveraging IoT to improve crop health, automate environmental controls, and facilitate remote monitoring.
  - **Features** - Real-time data monitoring utilising a network of sensors
  - Automated control based on sensor data
  - Remote accessibility for farmers via app
  - Data analysis and alerts with the help of machine learning.
  - **Benefit** - It enables farmers to monitor environmental conditions like temperature, humidity, soil moisture, and pH remotely.
  - Provides real-time data for precise control over crop conditions.

- **AgriSense** - IT is an IoT system to address challenges like deteriorating health of soil due to over application of fertilisers and finding the optimum watering level to ensure maximum output.
  - **Features** – It uses Agri-cone a mushroom shaped soil-monitoring device.
  - The sensors detect gases such as including CO_2 and ammonia.
  - Humidity sensors track air moisture levels around plants, helping to prevent diseases and promote healthy growth.

- **Remote Compost Monitoring system** – It is an intelligent IoT system that remotely monitors and manages compost which can then be used as fertilizer.
    - o **Features** - A sensor hub associated with each bin monitors pH values, temperature, humidity, and CO_2 levels of the compost inside them.

Challenges in agri tech innovation?

- **Low market adoption** – Use of agri technologies by Indian farmers is very low.
- **High customer acquisition cost** – High initial cost of agri technologies deters farmers from using them.
- **Lukewarm investor interest** – Inadequate interest by investors to invest developing agri tech businesses.
- **Inadequate finances** - Lack of funding in agritech poses a challenge to scaling up and deployment.
- **Fragmentated userbase** - Reaching out to farmers is going to be difficult because the end users are too fragmented.
- **Illiteracy** – Literal illiteracy and digital illiteracy hinders farmers from using agri technologies.

What needs to boost agri tech?

- **Different approach** - Agri-tech needs to be approached differently compared to consumer tech or other sectors which attract large funding.
- **Interdisciplinary approach** – Integrating various technologies to apply on agricultural tech development
- **Digital public goods** - Agriculture is a use case where solutions should be developed as public digital infrastructure.
- **Working with Farmer Producer Organisations (FPO)** - Conducting workshops to speak to farmers to get problem statements from them.

9.2 Draft National Policy Framework on Agricultural Marketing

Why in News?

Union Ministry of agriculture and farmer's welfare has recently released draft National Policy Framework on Agricultural Marketing for public comments.

What are the salient features of draft NPFAW?

- **Vision of the policy** - To build a vibrant marketing ecosystem where farmers of all categories find a market of their choice to realise the best price for their produce
- To Improve the efficiency and competition of the markets with multiple marketing channels with transparency, infrastructure, innovative digital technology and agri value chain based marketing.
- **Features of the draft Policy**
    - o **Private wholesale markets**- It encourages setting up of whole sale agricultural markets by private players.

    > *There already exists **125 wholesale** private markets present in five States.*

    - o **Direct purchases** - Direct purchase by processors, exporters, organised retailers, bulk buyers from farm gates
    - o **Corporate post-harvest infrastructures** - Replacement of traditional market yards with corporate warehouses and silos.

    - **NPFAM Focus Areas**
      - Market Architecture
      - Marketing Infrastructure
      - Agri Value Chain
      - APMCs
      - Ease of Doing Business
      - Market and Price
      - Market Information and Intelligence

    - o **Unified National Market**- Fixing a unified market fee and trading licence system.
    - o **Increase marketing option**- Declaring silos/cold storage as deemed market/yard.
    - o **E-trade** - Allowing establishment and operation of private e-trading platforms.
    - o **Contract farming** – Enabling agro processing/exporting or trading units enter into a contract with farmers/FPOs.
    - o **Federal committee** - Setting up of empowered agricultural marketing reform committee of state agricultural marketing ministers.
    - o **Promoting GrAMs**- To strengthen/develop 300 grameen haats into GrAMs annually.

- o **Modernization** - Leveraging cutting-edge technologies like blockchain, artificial intelligence, and machine learning to modernise supply chains
- o **Digital Marketing** - Enhancing the existing e-NAM platform into a comprehensive Digital Marketing Portal to improve transparency.

What are the rationale behind the policy?

- **Enhance farmers' income** - Build a vibrant marketing ecosystem where farmers of all categories find a market of their choice to realise the best price for their produce.

- **Price stability** – To mitigate the uncertainties of market and price.

- **Improve Efficiency** - Create competition in the form of multiple channels of marketing could provide visibility on trade transactions.

Ideal market architecture in the country should be in following pyramidal shape.

Export/Terminal Market

Secondary APMC/Private Market (Physical/Virtual)

Primary APMC/Private Market (Physical/Virtual)

Base Level Market (Rural Haats, Farm-Gate (Direct Marketing, aggregation/purchase centres) FPO & Contract Farming

- **Integrated output management** - Application of digital public infrastructure like block-chain and online platforms to integrate production and marketing of produces.

- **Unsustainability of APMCs** - APMCs may not sustain long on merely enforcing the marketing regulation and collecting the market fee but they have to be service providers for agri-value chain services.

- **Changed marketing dynamics** - There is a need for creation of end -to -end Value Chain Centric Infrastructure (VCCI) and Digital Infrastructure.
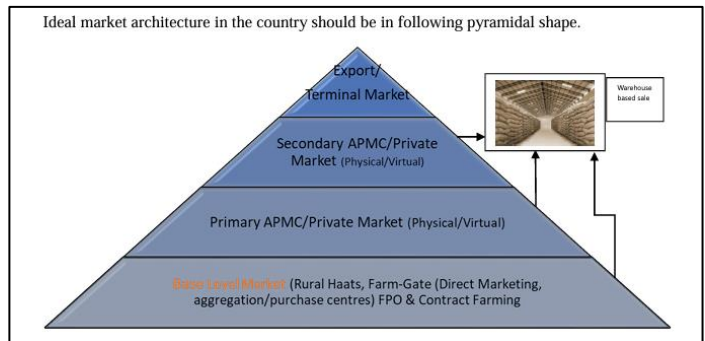
What are the Issues with the policy?

- **Inadequate research and studies** - There is no independent study about the effectiveness of existing wholesale private markets and the challenges faced them in operation and management.

> *Agri Value Chain (AVC) normally refers to the whole range of goods and services necessary for an agricultural product to move from farm to its final customer.*

- **Affects farmers interest** – Farmers might not have bargaining power with private storage infrastructures during price volatility.

- **No benefit sharing** - Lack of regulatory clause to make it mandatory for traders to share a portion of the surplus with the producers.

- **Homogenous policy** – Imposing uniform policy on agri markeing across India neglects the different aspiration of farmers in different states.

- **Impact on federalism** - The Empowered committee affects the power of states to regulate agrimarketing within their state.

> *Agricultural marketing is a **State subject** under Entry 28 of List-II (State List) of the VII Schedule under article 246 of the Constitution.*

- **Inadequate price assurances** – Lack of provision for minimum support prices or to support farmers during distress sale.

What lies ahead?

- Inclusion of price assurance mechanisms to farmers during distress sale.

- Provision of space for states to make changes in the policy based on the regional needs.

- Conduct performance analysis study on private markets functioning in the country and evaluate their effectiveness in improving farmer's interest.

- Regulation of corporate and private players entries and performance into the agri marketing.

9.3 Empowering small farmers

Why in News?

Recently, Principal Secretary to Prime Minister stressed the need of improving small farmers to improve overall agriculture system.

How are the agricultural landholdings distributed in India?

- **Land** – It is the basic means of production in an agrarian society without which no agricultural production can take place.

- Two aspects of land that affect the agriculture efficiency are
  - Size and distribution of land holdings
  - Land tenure system.

S.No.	Size-Groups		Classes (in hectares)
I.	Marginal	1.	Below 0.50
		2.	0.50 – 1.00 (0.50 < 1.00)
II.	Small	3.	1.00 – 2.00 (1.00 < 2.00)
III.	Semi-Medium	4.	2.00 – 3.00 (2.00 < 3.00)
		5.	3.00 – 4.00 (3.00 < 4.00)
IV.	Medium	6.	4.00 – 5.00 (4.00 < 5.00)
		7.	5.00 – 7.50 (5.00 < 7.50)
		8.	7.50 – 10.00 (7.50 < 10.00)
V.	Large	9.	10.00 – 20.00 (10.00 < 20.00)
		10.	20.00 and above

- **Operational Holding** - All land which is used wholly or partly for Agricultural production and is operated as one technical unit by one person alone or with others without regard to the title, legal form, size or location.

- **Small and marginal farmers** – 85% percentage of farmers in India are small and marginal farmers.

- **Increase in operational holdings** - The number of operational holdings has increased from 71 million in 1970-71 to 146.5 million in 2015-16(10th Agri census data).

- **Decrease in average landholding** - The average size of holdings had continuously declined from 2.28 hectares in 1970-71 to 1.08 hectares in 2015-16.

Number of holdings, operated area and average size of holdings - All Social Groups

Sl. No.	Size Groups	Number of Holdings (in '000)									
		1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2000-01*	2005-06*	2010-11	2015-16
1	Marginal	36200	44523	50122	56147	63389	71179	75408	83694	92826	100251
2	Small	13432	14728	16072	17922	20092	21643	22695	23930	24779	25809
3	Semi-Medium	10681	11666	12455	13252	13923	14261	14021	14127	13896	13993
4	Medium	7932	8212	8068	7916	7580	7092	6577	6375	5875	5561
5	Large	2766	2440	2166	1918	1654	1404	1230	1096	973	838
	All Sizes	71011	81569	88883	97155	106637	115580	119931	129222	138348	146454

| Sl. No.	Size Groups	Average (in ha.)									
		1970-71	1976-77	1980-81	1985-86	1990-91	1995-96	2000-01*	2005-06*	2010-11	2015-16
1	Marginal	0.40	0.39	0.39	0.39	0.39	0.40	0.40	0.38	0.39	0.38
2	Small	1.44	1.42	1.44	1.43	1.43	1.42	1.42	1.38	1.42	1.40
3	Semi-Medium	2.81	2.78	2.78	2.77	2.76	2.73	2.72	2.68	2.71	2.69
4	Medium	6.08	6.04	6.02	5.96	5.90	5.84	5.81	5.74	5.76	5.72
5	Large	18.10	17.57	17.41	17.21	17.33	17.20	17.12	17.08	17.38	17.07
	All Sizes	2.28	2.00	1.84	1.69	1.55	1.41	1.33	1.23	1.15	1.08

- **Increase in operated area** - The operated area which was 162.3 million hectares in 1970-71, initially increased to 165.5 million hectares in 1990-91 and thereafter has shown a declining trend in general.

India's shrinking farms
Average farm size (in hectares)

2.00ha — 1976-77
1.41ha — 1995-96
1.08ha — 2015-16

Source: Agriculture Census, Census of India, Indira Gandhi Institute of Development Research

## What are the challenges faced by small farmers?

- These farmers are caught in a vicious cycle of diminishing landholdings, lack of resources, and predatory moneylenders.

- **Insufficiency** - Small plots of land, often less than an acre, are insufficient to sustain a family.

- **Lack of access to resources** - Without access to reliable water sources, quality seeds, or market knowledge, these farmers struggle to make ends meet.

- **Indebtedness** - Many fall prey to moneylenders who charge exorbitant interest rates, pushing them deeper into debt.

- **Vicious trap** - The result is a cycle of poverty and despair, which has contributed to India's agricultural distress.

What is collective farming?

- **Land pooling** - Farmers retain ownership of their land but agree to pool their plots into a collective unit.
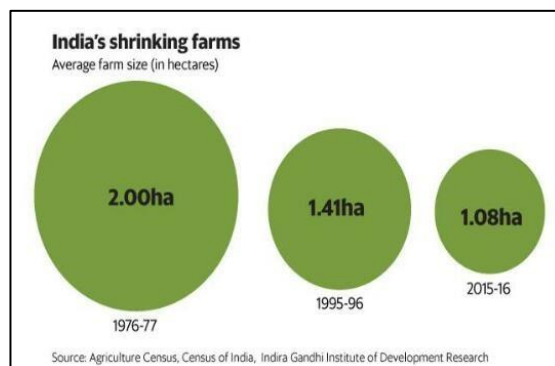
- This creates larger, contiguous areas for farming, which improves efficiency and scalability.

- **Collaborating with social entrepreneurs** - A non-exploitative social entrepreneur provides initial capital, access to water resources, seeds, and marketing channels.

- **Natural farming techniques** - Farmers are taught to prepare organic fertilizers to enhance soil fertility and reduce dependency on expensive chemical inputs.

- **Revenue distribution** - Farmers receive daily wages for their labour and after the harvest, revenue from the sale of produce is distributed.

- Operational expenses are deducted, and the remaining profits are shared among farmers based on their land contribution.

Land Holding Categories - Share (%)

Graph - 5 — Share in Operational Holding (1970-71): Marginal 51%, Small 19%, Semi-Medium 15%, Medium 11%, Large 4%

Graph - 6 — Share in Operational Holding (2010-11): Marginal 67%, Small 18%, Semi-Medium 10%, Medium 4%, Large 1%

Graph - 7 — Share in Operated Area (1970-71): Large 31%, Marginal 9%, Small 12%, Semi-Medium 18%, Medium 30%

Graph - 8 — Share in Operated Area (2010-11): Large 11%, Marginal 22%, Small 22%, Semi-Medium 24%, Medium 21%

Together, marginal (<1 ha) and small (1-2 ha) farmers operate 44% of the cultivated area in the country (2010-11).
Source: Agricultural Census, various rounds, GoI

- **Education and the future** - To arrest further fragmentation of land, the model encourages farmers to document their children's names in land records.

- Earnings from the collective farming initiative can fund their education, enabling them to pursue careers outside agriculture.

- **Institutional set up** - small and marginal farmers in a contiguous area are grouped as Farmer's Interest Groups (FIG) and FIGs would be integrated into Farmer Producer Group (FPG).

- **SFAC** - Small Farmers' Agri-Business Consortium is an exclusive Society focused on increasing incomes of small and marginal farmers through aggregation and development of agribusiness.

- It is promoted by Department of Agriculture and Farmers Welfare, Ministry of Agriculture and Farmers Welfare, Govt. of India
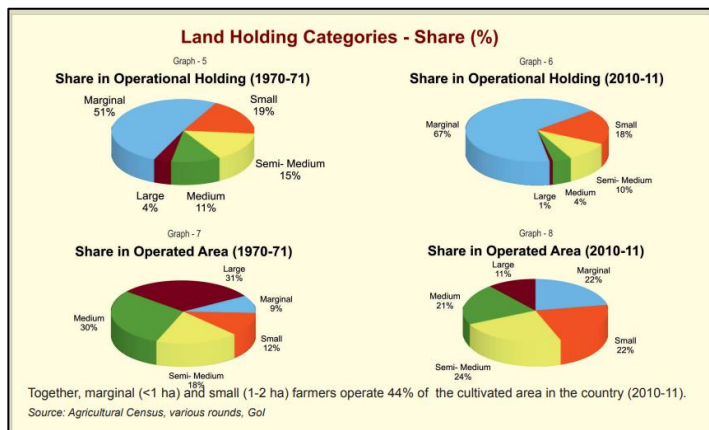
What are the benefits of collective farming?

- **Economic stability -** By earning both wages and profit shares, farmers experience immediate and long-term financial benefits.

- **Sustainability -** Natural farming practices improve soil health and reduce environmental harm, creating a sustainable agricultural system.

- **Social Empowerment -** Collective farming fosters community cooperation, reduces dependence on moneylenders, and gives farmers greater bargaining power in markets.

- **Prevention of land fragmentation -** Joint ownership through a pooled model halts the physical division of land, ensuring its viability for future generations.

- **Focus on education -** Redirecting farm income toward children's education creates opportunities for upward mobility and diversification of livelihoods.

What lies ahead?

- The holistic collective farming model is not just an economic initiative; it is a vision for social transformation.

- By integrating traditional knowledge with modern sustainability practices, it offers a way to rejuvenate India's farming sector.

- To scale this initiative, government bodies, NGOs, and private stakeholders must come together.

- Financial incentives, such as subsidies for natural farming inputs or tax benefits for social entrepreneurs, could accelerate adoption.

9.4   Recent Trends in Fiscal Health Index, 2025

Why in news?

State governments in India faced worsening debt and fiscal issues during the COVID-19 pandemic. Their debt-to-GDP ratio increased from 25.3% in 2019 to 31% in 2021.

What is Fiscal health index?

- *__NITI Aayog__* has introduced a Fiscal Health Index, which evaluates the fiscal positions of 18 major states using *__five sub-indices:__*
    - Fiscal Prudence
    - Debt Index and Sustainability
    - Revenue Mobilization
    - Quality of Spending
    - Stabilization of State Finances
- This framework not only *__identifies high-performing states__* but also pinpoints areas for improvement.

What are the Findings from the Index?

- **Top Performers -** *__Odisha, Chhattisgarh, Goa, Jharkhand, and Gujarat__*.
- States like *__Odisha and Gujarat__* have low debt-to-GSDP ratios of 16.3% and 17.9%, respectively.
- **Bottom Performers -** Punjab, Andhra Pradesh, West Bengal, Kerala, and Haryana.
- Punjab has a high debt-to-GSDP ratio of 46.6%.

What are the Reasons for worsening debt-to-GDP Ratio:

- **Rising Debt-to-GDP Ratios** - States like Punjab and West Bengal have alarmingly high debt levels, raising concerns about debt sustainability and fiscal health.
- **Dependence on Borrowings** - Many states rely heavily on borrowings to meet fiscal deficits, which leads to higher interest liabilities, reducing funds for developmental expenditure.
- **Unproductive Expenditures -** Spending on "freebies" or populist schemes, without clear economic returns, burdens state finances. Guarantees for loans to poorly performing sectors further worsen fiscal stress.
- **Revenue Mobilisation Issues -** States struggle to generate adequate revenue due to inefficiencies in tax collection, limited resource mobilisation, and weak administration in sectors like GST compliance.
- **Loss-Making Power Distribution** - Power subsidies and inefficiencies in state-owned DISCOMs continue to drain resources, despite reforms like *__UDAY (Ujwal DISCOM Assurance Yojana).__*
- **High Dependence on Central Transfers -** States heavily depend on central devolution and grants for their revenue needs. Any reduction in central assistance, like during economic crises, adversely impacts fiscal stability.

What are the Growing Disparities between States?

- The increasing economic and developmental disparity among Indian states is a critical issue.
- States like Gujarat, Maharashtra, and Tamil Nadu perform exceptionally well.
- States like Bihar, Uttar Pradesh, and Jharkhand lag in economic growth, fiscal health, and social development.

What are the Causes of Disparities between States?

- **Geographical Differences -** Coastal states benefit from trade and industrialization, while landlocked and disaster-prone states face challenges.
- **Historical Factors** - Colonial policies favored some regions, leaving others underdeveloped.
- **Unequal Resource Allocation -** Central funds and investments are often skewed towards developed states.
- **Governance Issues -** Poor administration and corruption in some states hinder development.
- **Economic Dependence -** Backward states rely heavily on agriculture, which is vulnerable to climate risks.
- **Lack of Industrialization -** Industrial growth is concentrated in a few states, creating regional gaps.
- **Low Human Capital -** Poor education and health systems result in unskilled labor in lagging states.

What Lies ahead?

- Strengthen revenue generation by improving GST compliance and reforming property taxes. Encourage fiscal responsibility by adhering to ***FRBM targets and avoiding off-budget borrowings***.

- Reform subsidy management to target deserving beneficiaries with Direct Benefit Transfers.

- Focus on capital expenditure in infrastructure, healthcare, and education, using Public-Private Partnerships.

- Address DISCOM issues with tariff management and loss reduction reforms.

10.   SCIENCE & TECHNOLOGY

10.1   ISRO Missions

Why in News?

Recently ISRO finished its 2024 launch schedule with PSLV C60 mission.

What were the significant missions of ISRO in 2024?

- In 2024, ISRO successfully launched 15 missions, including high-profile projects like the Aditya L1 solar mission and INSAT-3DS mission.

- **PSLV C58** – The year 2024 began with the launch of XPoSat using PSLV C58 mission

- PSLV Orbital Experimental Module-3 (POEM-3) experiment was also conducted using the PS4 stage of PSLV C58.

- **Aditya L1 solar mission** – In January 2024, Aditya-L1 spacecraft, India's first solar mission, has successfully entered its final orbit around the first Sun-Earth Lagrangian point (L1).

- **INSAT-3DS** –GSLV-F14 launched this meteorological satellite into the Geosynchronous Transfer Orbit (GTO).

- **ABPS** - ISRO successfully carried out the second experimental flight for the demonstration of Air Breathing Propulsion Technology.

- **Reusable Launch Vehicle** - RLV LEX-02 and 03 were demonstrated the autonomous landing capability of the RLV under more challenging release conditions and more severe wind conditions.

- **HLVM 3** – In December 2024, ISRO began assembling the human-rated LVM-3 (HLVM-3) for its first uncrewed mission.

  o   This marked official launch campaign for HLVM-3 G1/OM-1 mission.

> *"**Pushpak**" is the reusable test launch vehicle developed and used by ISRO.*

- **Axiom-4 mission** - India selected 2 crew members Shubhanshu Shukla and Prasanth Balakrishnan Nair to this private spaceflight to International Space Station.

> *'**G1**' stands for the first Gaganyaan mission and 'OM-1' for the first orbital module mission.*

- **PSLV C59** - It placed the European Space Agency's (ESA) Proba-3 spacecrafts — 'Project for Onboard Autonomy' (Proba)— into a highly elliptical orbit of 600 km x 60,500 km as planned 18 minutes after liftoff.

What is PSLV C60 Mission?

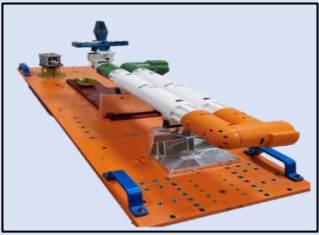> *The experimental flight of the Launch Vehicle **Mark 3** (LVM-3) X was conducted in 2014.*

- **PSLV C60 Mission** – It consists of SpaDeX and PSLV Orbital Experimental Module (POEM-4).

- **SpaDex** - Space Docking Experiment is a predecessor to ISRO's Bharatiya Antariksh Station (BAS) and the Chandrayaan-4 missions todemonstrate in-orbit docking.

- **POEM 4** – It is the set of 24 payload experiments conducted using the fourth stage of PSLV-C60.

Payloads of POEM-4	
Module	**Description**

Walking Robotic Arm	• It is the Relocatable Robotic Manipulator-Technology Demonstrator developed by ISRO Inertial Systems Unit (IISU). • It is expected to demonstrate a robotic arm that can move to defined targets on the POEM using an inch-worm walking technique.
Debris Capture Robotic Manipulator	• It is developed by Vikram Sarabhai Space Center (VSSC) to capture tethered space debris with a robotic manipulator.
Compact Research module	• It was built by VSSC for orbital plant studies to study the germination and growth of eight cowpea seeds in a five- to seven-day experiment in a controlled environment.
Amity Plant Experimental Module in Space (APEMS)	• Developed by Amity University, Mumbai, It will compare growth-related changes in plant callus cells using spinach plants (*Spinacia oleracea*) in microgravity and earth gravity.
RVSat-1	• Developed by R.V. College of Engineering Bengaluru, It will measure the growth of the gut bacterium *Bacteroides thetaiotaomicron* in space. • The experiment will provide data to understand human physiology in space and astronaut health during crewed missions.
Multi-Sensor Inertial Reference System (MIRS)	• Developed by IISU to demonstrate and evaluate the performance of newly developed miniaturised inertial sensors in space.
Electron Temperature Analyser (ETA)	• Developed by SPL for in-situ measurement of electron temperature and electron density of planetary ionospheres.
Electron Density and Neutral Wind (ENWi)	• To measure ion and electron drifts in two perpendicular directions along the orbit.
Langmuir Probe (LP)	• To measure various ionospheric properties, such as electron temperature using 1-LP in sweep mode to derive the electron density, estimating the electric field using a 2-LP configuration
RUDRA 1.0 HPGP	• To demonstrate a high-performance Green Propulsion System.
Swetchasat	• To demonstrate the operational capability of the onboard UHF transmitter by establishing a reliable communication link with the ISRO Telemetry and Tracking Command (ISTRAC) ground station.
MOI-TD	• It is a technology demonstrator AI lab in space.

What are the upcoming ISRO missions in 2025?

- **Uncrewed HLVM 3** - The 3 stage Human rated Launch vehicle 3 will be tested for the Gaganyaan mission.

- **NISAR Mission** - NASA-ISRO Synthetic Aperture Radar satellite is set for launch around March 2025.

- **Advanced NVS-02 satellite** – It is part of India's NavIC (Navigation with Indian Constellation) system.

- **Deployment of Vyommitra** - Indian humanoid robot Vyommitra will be launched along with uncrewed test mission of Gaganyaan.

> *NISAR* is considered the world's most expensive earth imaging satellite that will provide high-resolution data, scanning land and ice every 12 days, with a focus on global environmental changes.

10.2   AI in Redefining death, memory and immortality

Why in News?

Recently, an AI technology company called StoryFile used prerecorded answers combined with artificial intelligence to create a realistic, interactive experience.

How is AI used to create a digital life?

- **Virtual life or Digital** – Creating a virtual digital version of a person with by using their information, data, feeds, responses in digital environments like social media, internet usage, email.

> *A person's digital usage includes Social Media Profiles, Online Communities, Virtual Reality (VR), Digital Workspaces, Content Creation, E-commerce, Digital Identity.*

- It uses artificial intelligence to create a realistic, interactive experience.

- **Conversational video AI** – Live interaction with the digital AI version of a living or deceased person.

- **Chatbot based system** - Microsoft has patented a system that can take someone's digital data – such as texts, emails and social media posts – and use it to create a chatbot.

- This chatbot can respond in ways that sound like the original person.

- **Virtual reality** – Virtual recreation of a person and interacting with them in the virtual world.

What are the advantages of digital life?

- **Managing post life** - Helping people manage their digital lives after they're gone.

- **Managing digital assets** - Apple, Google and Meta offer tools to allow someone you trust to access your online accounts when you die.

> *Digital assets* include everything from social media profiles and email accounts to digital photos, online bank accounts and even cryptocurrencies.

- **Coping with grief** - Using advanced digital imaging and voice technology, virtual version of a person can be used to overcome loss of a person.

- It gives people a new way to feel connected to a loved one after they're gone.

- **Personality development** – Interacting with one's own digital life improves many of the dimensions of their work, play and home lives.

What are the challenges in managing digital life?

- **Ownership of digital life** - This issue is already being discussed in courts and by governments around the world.

- In the United States, nearly all states have passed laws allowing people to include digital accounts in their wills.

- **Inheritability of digital property** - In Germany, courts ruled that Facebook had to give a deceased person's family access to their account.

- It held that digital accounts should be treated as inheritable property, like a bank account or house.

- **Responsibility**– In cases of, when digital clone of a person says or does something online that the person would never have said or done in real life.

- **Exploitation** – Use of deep fakes of persons like singer, actor for commercial purpose without their permission.

- **High cost** - Basic tools for managing digital accounts after death are more advanced services with highly expensive.

- This cost barrier raises important questions about whether digital immortality could create new forms of inequality.

- **Grief challenge** - Research shows that a significant proportion of people maintain their social media connections with deceased loved ones.

- Staying connected to someone's digital presence could make it harder for people to move on.

What are the Cultural and religious views on digital afterlife?

- Different cultures and religions have their own unique perspectives on digital immortality.

- **Catholic** - The Vatican, the center of the Catholic Church, has said that digital legacies should always respect human dignity.

- **Islam** - In Islamic traditions, scholars are discussing how digital remains fit into religious laws.

- **Japan** - Some Buddhist temples in Japan are offering digital graveyards where families can preserve and interact with digital traces of their loved ones.

How can the digital life be managed?

- **Decision on digital legacy** - Reflecting on whether creating a digital self-aligns with the personal, cultural or spiritual beliefs.

- **Managing digital assets** – Making a list of all digital accounts, content and tools representing digital self and deciding on how these should be managed, preserved or deleted.

- **Digital executor** - Appointing a trustworthy, tech-savvy person to oversee digital assets and carry out wishes.

- **Digital assets in will** – Covering digital identity and assets in life will and specify how they should be handled, including storage, usage and ethical considerations.

- **Ethical and emotional impacts** - Considering how digital legacy might affect loved ones while planning to avoid misuse, ensure funding for long-term needs, and align your decisions with your values.

What lies ahead?

- Thousands of years ago, the Egyptian pharaohs had pyramids built to preserve their legacy.

- Today, our "digital pyramids" are much more advanced and broadly available.

- They don't just preserve memories; they can continue to influence the world, long after we're gone.

11. RENEWABLE ENERGY

11.1 FTP Strategy for Biofuels

Why in News?

Recently, Feedstock-Technology-Product (FTP) has been stressed for the biofuel sector.

What are the technologies of biofuel production?

- **The F-T-P (Feedstock-Technology-Product)** - It provides a structured framework for embedding biofuels into industries like sugar, paving the way for a green economy.

- **Alcohol-to-Jet (ATJ) Technology** – It is a process for the conversion of alcohols to an alternative jet fuel blendstock.

> *The **CSIR-IIP** pilot plant in Dehradun produces 30 liters of sustainable air fuel.*

- **Bio-Methanation** – It converts organic waste into biogas, supporting circular bioeconomy principles.

- **Lactic Acid Technologies** – It is the process of developing bioplastics from PLA (polylactic acid) form using biofuels.

What are the types of biofuel products produced under FTP?

- **Ethanol (1G and 2G)** - The Ethanol Blending Programme (EBP) has driven ethanol demand, with India achieving record blending rates.

- **Sustainable Aviation Fuel (SAF)** - It represents a lucrative opportunity as global aviation embraces decarbonization.

- With the aviation sector eyeing biofuels as a compliance mechanism for climate commitments, India must position itself as a key SAF supplier.

- **Renewable Chemicals and Materials (RCM)** - Producing bio-based chemicals and materials can significantly enhance the sugar industry's profitability while reducing reliance on fossil-based inputs.

- **Bioplastics and Bio-Bitumen** - The rising demand for sustainable infrastructure materials and eco-friendly packaging aligns perfectly with these product lines.

What are the benefits of FTP approach?

- **Fosters innovation** – Combining feedstock diversity, cutting-edge technologies, and diversified outputs, biorefineries

- **Sustainability** - This approach, not only achieves our energy goals but also set a benchmark for sustainable industrial transformation worldwide.

- **Integrated biorefineries** - When aligned with India's National Policy on Biofuels 2018, can help transform the sugar industry into an engine of sustainable growth.

- By combining feedstock diversity, cutting-edge technologies, and diversified outputs, biorefineries can:

- **Optimise resource utilization** – Biofuels production put resources like agri, bio resources, industrial plants, labour and capital effectively.

- **Rural development** – It helps the emergence of sustainable industrial hubs driving rural development.

- **Economic resilience** – This method strengthens the economy through energy independence, job creation, waste utilization rural development and market diversification.
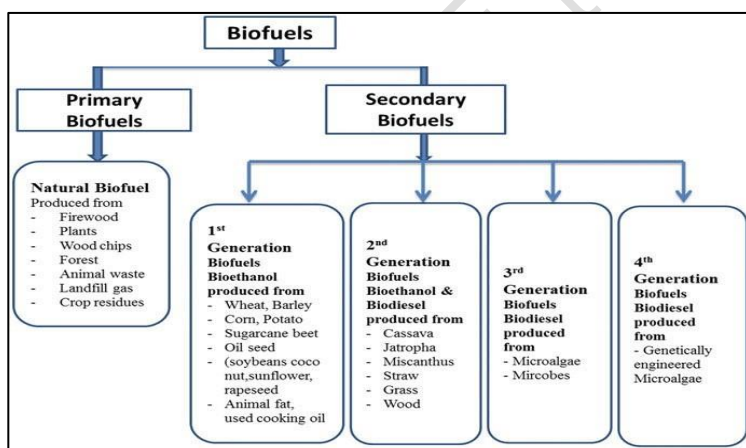
Generation	Feedstocks	Example
First generation (1G)	Molasses, sugarcane syrup, and surplus grains.	Bioethanol, biodiesel, biogas
Second generation (2G)	• Non-food sources • Municipal solid waste, wood chips etc. • Agricultural residues like bagasse, rice straw.	Cellulose ethanol, biodiesel
Third generation (3G)	Algae- It consists of 40% of lipids which can be converted to biodiesel or synthetic petroleum.	Algal Biofuels Butanol, Gasoline, Jet fuel
Fourth generation (4G)	Genetically engineered bio algae	Biodiesels and other bio fuels and products.

What are the opportunities in biofuel production for India?

- **Agricultural production** - India's agricultural abundance positions it as a natural leader in biofuel production.

- **Sugarmills** - India's sugar mills, with their vast bagasse by-products, are uniquely positioned to drive this forward.

- By integrating bio-methanation with sugar mill operations, waste can be transformed into valuable energy.

- **Waste management** - 68.7 million tonnes of food is wasted annually in Indian homes.
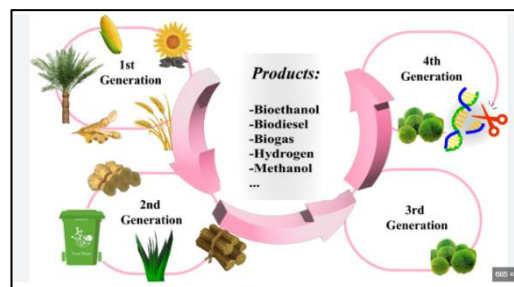
- **Post-harvest losses** - 22% of the foodgrain output or 10% of the total foodgrain and horticulture production for the 2022-23 period were lost.

- **Preharvest losses** – Crop losses due natural calamities like heavy rainfall, flood and cyclone can be used as feedstock in 2nd generation biofuel production.

- **Plastic management** – Developing bioplastics using bioplastics reduces plastic dependency and help in achieving sustainable material production.

Total food grain and horticulture production in 2023-24 period were about 320 million tonnes and 350 million tonnes.

What lies ahead?

- With global biofuel production projected to rise significantly by 2027 (as per IEA reports), India's multi-feedstock strategy must emphasise regional adaptability and waste valorisation.

- Technology adoption in biofuel production must ensure scalability and cost-efficiency.

- Global reports like GBET 2022 emphasize the need for biomass pretreatment and advanced bioconversion methods, which India must prioritize.

- India must diversify biofuel products to expand beyond ethanol into chemicals, SAF, and renewable materials to harness the opportunities from evolving global biofuel markets.

- With the aviation sector eyeing biofuels as a compliance mechanism for climate commitments, India must position itself as a key SAF supplier.

12. REPORTS AND INDICES

12.1 Global Risk Report 2025

Why in News?

Recently World Economic Forum has released Global Risk Report 2024.

What are the current global risks?

- **Declining optimism** - The global outlook is increasingly fractured across geopolitical, environmental, societal, economic and technological domains.

- **Geopolitical tensions** - State-based armed conflict, now ranked as the #1 current risk by 23% of respondents, was overlooked as a leading two-year risk two years ago.

- National security considerations are starting to dominate government agendas.

- **Geopolitical recession** - Dangers of unilateralism taking hold in national security considerations and the worsening humanitarian impacts of the ongoing conflicts.

- Destabilizing consequences following Russia's invasion of Ukraine, as well as in the Middle East and in Sudan are amplifying the global risks.

- **Supercharged economic tensions** - The rise in the two-year ranking of Geoeconomic confrontation, from #14 last year to #9 today reflects unease about the path ahead for global economic relations.

- **Misinformation and disinformation** - False or misleading content is complicating the geopolitical environment, affecting voter intentions.

- It can sow doubt among the general public worldwide about what is happening in conflict zones

- It can be used to tarnish the image of products or services from another country.

- **Societal fragmentation** - Inequality in wealth and income is perceived as the most central risk of all, playing a significant role in both triggering and being influenced by other risks.

- It is contributing to weakening trust and diminishing our collective sense of shared values.

- **Other societal risks** - Societal polarization, Involuntary migration or displacement and Erosion of human rights and/ or civic freedoms.

- **Economic downturn and Inflation** - Impacts of the cost- of-living crisis since 2022 contributed to Inequality becoming the top interconnected risk this year.

- **Super-ageing societies** - Unfavourable demographic trends in Japan, South Korea, Italy or Germany will cause pensions crises and labour shortages in the long-term care sector.

- **Environmental risks** - Extreme weather events, biodiversity loss and ecosystem collapse, pollution are expected to become even more of a concern than they already are.

- **Technological risks** - The role of Generative AI (GenAI) in producing false or misleading content at scale and the consequent societal polarization.

- **Biotech challenges** - Intrastate violence from biological terrorism and adverse outcomes of frontier technologies involving accidental or malicious misuse of gene editing technologies, or even of brain-computer interfaces.
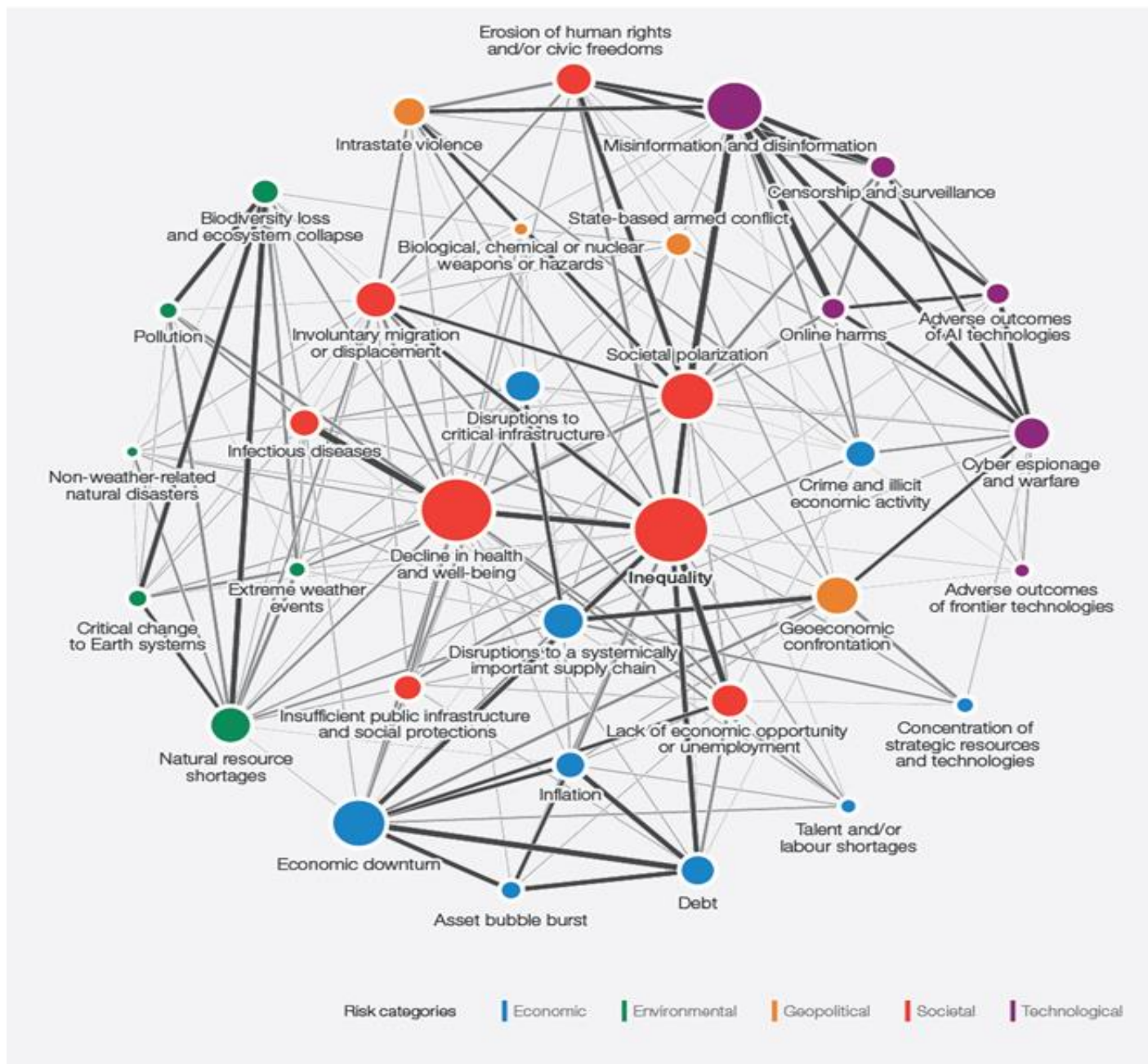
What can be done to manage the risks?

- Strengthen the existing structures to tackle the challenges collectively confronting us.

- Leaders across the public and private sectors, civil society, international organizations and academia must seize the baton to work openly and constructively with each other.

- Deepening honest dialogue and act to mitigate the risks to rebuild trust and create stronger, more resilient economies and societies.

Current Global Risk Landscape

Risk	%
State-based armed conflict	
Extreme weather events	14%
Geoeconomic confrontation	8%
Misinformation and disinformation	7%
Societal polarization	6%
Economic downturn	5%
Critical change to Earth systems	4%
Lack of economic opportunity or unemployment	3%
Erosion of human rights and/or civic freedoms	2%
Inequality	2%
Involuntary migration or displacement	2%
Natural resources shortages	2%
Adverse outcomes of AI technologies	2%
Cyber espionage and warfare	2%
Crime and illicit economic activity	2%
Biodiversity loss and ecosystem collapse	1%
Concentration of strategic resources and technologies	1%
Disruptions to a systemically important supply chain	1%
Asset bubble burst	1%
Decline in health and well-being	1%
Biological, chemical or nuclear weapons or hazards	1%
Debt	1%
Disruptions to critical infrastructure	1%
Infectious diseases	1%
Intrastate violence	1%
Insufficient public infrastructure and social protections	<1%
Inflation	<1%
Pollution	<1%
Online harms	<1%
Censorship and surveillance	<1%
Non-weather-related natural disasters	<1%
Talent and/or labour shortages	<1%
Adverse outcomes of frontier technologies	<1%

- Expand the role of regional organizations in managing tensions like African Union.

- Diversify supply chains to increase it's resilience.

- Foster multilateralism to address geoeconomic confrontations.

- Develop strategic regional or bilateral ties with countries that offer complementarity in terms of sectoral strengths, natural resource endowments and skill.

- Strengthen the domestic economy, such as financial sector development or investment in education, health and infrastructure.
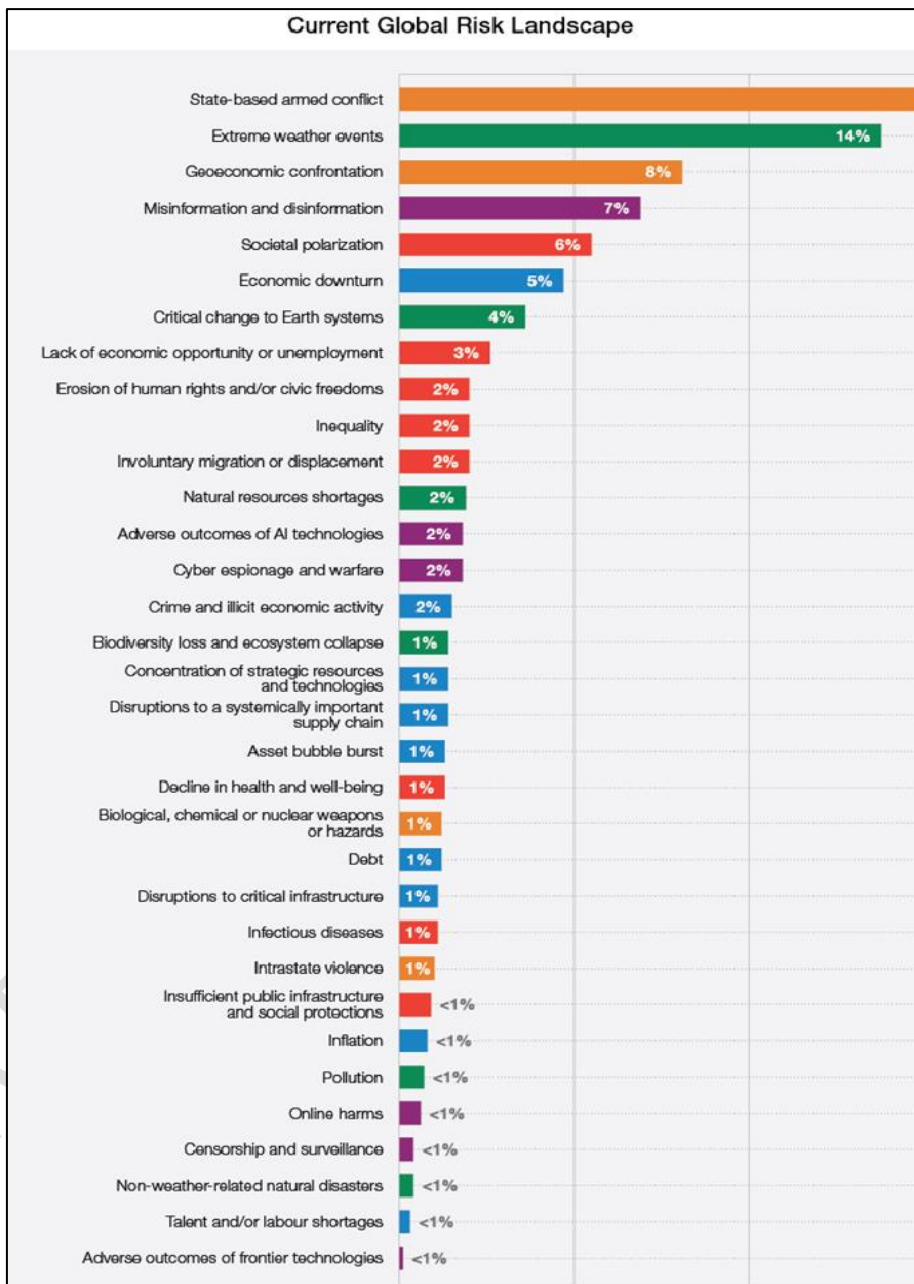
Global risks landscape: An interconnections map[3]

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