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Polity and Governance

Highlights

- Assam Accord Road Map
- Pradhan Mantri Awas Yojana-Gramin
- Crackdown on NGOs under FCRA, 2010
- National Health Account (NHA) Estimates 2020-21 and 2021-22
- 3 Years of Ayushman Bharat Digital Mission
- Social Media Regulation for Children
- State Control of Temples
- State Regulation Regarding Food Eateries
- Ensuring Discipline Among Judges
- Dynamic Nature of the Indian Constitution

Assam Accord Road Map

Why in News?

The Assam government plans to develop a road map for implementing the **recommendations of the Justice Biplab Kumar Sharma Committee** regarding **Clause 6 of the Assam Accord** by **25th October, 2024**.

What is Clause 6 of the Assam Accord?

- **Clause 6:**
 - Clause 6 of the accord promises **Constitutional, legislative and administrative safeguards**, to preserve and promote the **cultural, social, linguistic identity and heritage of the Assamese people**.
 - The main aim was to **protect the indigenous identity of the Assamese people**.
 - The clause was added in response to **changes in population ratios** and the influx of **migrants from Bangladesh**.
- **Assam Accords:**
 - The Assam Accord, **signed in 1985**, was a **tripartite agreement** between the Central Government, the Assam State Government, and leaders of the Assam Movement, aimed at stopping the **influx of illegal migrants** from Bangladesh.
 - It led to the introduction of **Section 6A into the Citizenship Act, of 1955**, exclusively for Assam.

What is the Biplab Sarma Committee Report?

- **Background:**
 - In **July 2019**, the **Union Home Ministry** constituted a **14-member committee** to suggest ways to implement Clause 6 of the accord.

- The committee was **chaired by retired Assam High Court Justice Biplab Kumar Sarma** and included judges, retired bureaucrats, writers, AASU leaders, and journalists.

➤ Definition of Assamese:

- The committee **completed its report in February 2020**, and recommended that the definition of "Assamese people" should include:
 - Indigenous Tribals
 - Other Indigenous Communities of Assam,
 - Indian citizens residing in Assam on or before January 1, 1951, and their descendants,
 - Indigenous Assamese people.

➤ Recommendations:

- The **52 recommendations** primarily **focus on safeguards related to language, land, and cultural heritage**.

➤ Key Points:

- **Land:**
 - Establish Revenue Circles where only **"Assamese people"** can own and **transfer land, and implement a three-year program** to grant land titles to those **occupying land without proper documentation**.
 - Conduct a **special survey of char areas (riverine regions along the Brahmaputra)** and **prioritize erosion-affected people** in land allotment.
- **Language:**
 - Establish an Autonomous Language and Literature Academy/Council to preserve and promote Assam's indigenous languages.

Note:

- Make Assamese a compulsory subject up to Class VIII or X in all English medium schools under the state board and CBSE.
- **Cultural Heritage:**
 - Establish an **autonomous authority** for the development of **sattras (neo-Vaishnavite monasteries)** with financial assistance.
 - Create **multipurpose cultural complexes** in each district to uplift the cultural heritage of all ethnic groups.
- The **Sixth Schedule autonomous councils in Assam** — Bodoland Territorial Council, North Cachar Hills Autonomous Council, and Karbi Anglong Autonomous Council — will decide on implementing these 52 recommendations.
 - The primarily Bengali-speaking Barak Valley is exempted from these recommendations, along with the Sixth Schedule areas.
- **Recommended reservations** for “Assamese people” in Parliament, the state Assembly, local bodies, and jobs.

Recommendations that have been Left Out

- Some of the most **sensitive recommendations by the committee are not included** in the 52 points listed by the state government.
- Key missing recommendations include:
 - The **introduction of an Inner Line Permit for entry into Assam**, similar to those in Nagaland, Arunachal Pradesh, Manipur, and Mizoram.
 - Reservations for “Assamese people”.
 - Creation of an Upper House (Legislative Council of Assam), fully reserved for “Assamese people.”

What are the Challenges in Implementation of the Assam Accords?

- **Complexity of Defining Assamese Identity** : The committee’s recommendation to define “Assamese people” can **lead to disputes over who qualifies for protections** under Clause 6 and this may foster resentment among different ethnic groups.
- **Land Ownership and Rights**: Establishing Revenue Circles for exclusive land ownership by “Assamese people” may create significant **legal and administrative issues**. Conducting a survey for land allotment in char areas presents logistical challenges

- **Language Policies**: The requirement to make **Assamese the official language and compulsory in schools** may **face resistance, especially in Bengali-dominant areas** like the Barak Valley.
- **Funding and Management**: Establishing an **autonomous authority for sattras and cultural complexes** may require substantial **funding and effective management structures**.
- **Political and Bureaucratic Resistance**: Recommendations requiring concurrence from the Central Government may face **delays or resistance, complicating the implementation process**.
- **Exemptions for Barak Valley**: Exempting the **Barak Valley and Sixth Schedule areas** from these recommendations **may create perceptions of inequity and division** within the state, potentially exacerbating existing regional tensions.

Pradhan Mantri Awas Yojana-Gramin

Why in News?

Recently, the Indian government has taken significant steps to enhance its rural housing scheme under the **Pradhan Mantri Awas Yojana-Gramin (PMAY-G)** by initiating a survey of kutchha houses nationwide and launching the **Awas Sakhi mobile app**.

- This initiative aims to identify new beneficiaries for pucca (all-weather) homes, helping families with inadequate housing.

What is the Purpose of the Survey of Kutchha Houses?

- **Addressing Housing Inadequacy**: It aims to gather data on families living in kutchha dwellings, allowing the government to focus **resources on those most in need of assistance**.
- **Supporting the Awas Sakhi Mobile App**: The survey will complement the recently launched Awas Sakhi mobile app, which streamlines the application process for beneficiaries and provides them with easy access to information and resources related to housing.

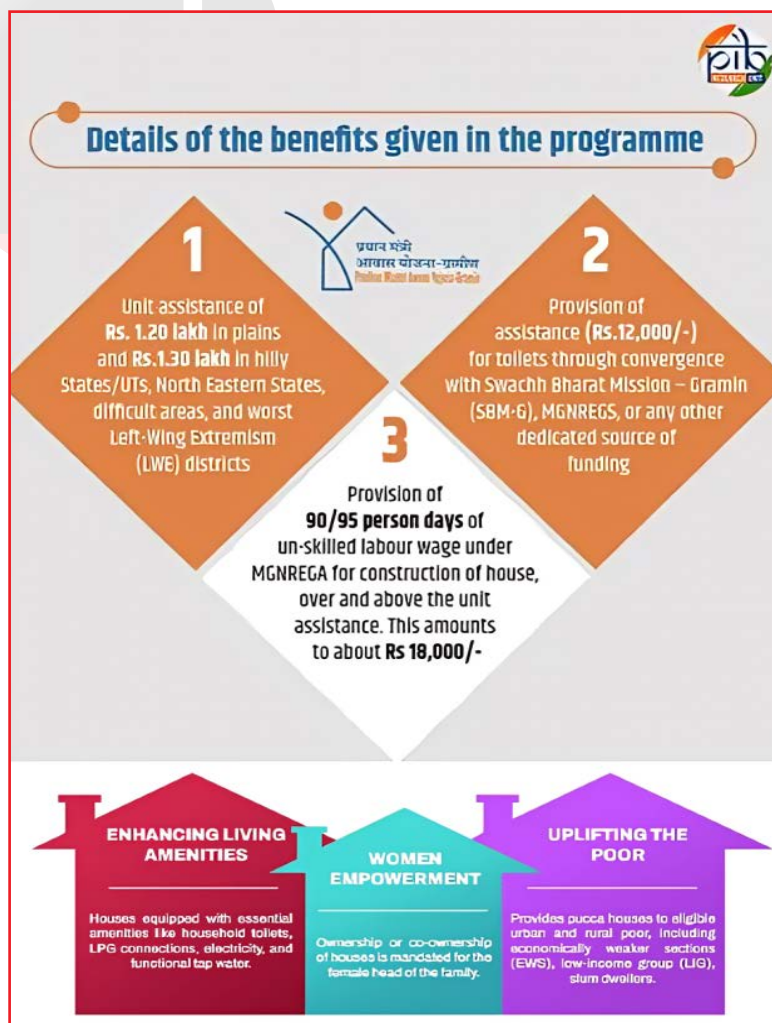
Note:



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What is the Pradhan Mantri Awas Yojana-Gramin (PMAY-G)?

- **About:** Launched in 2016, the PMAY-G aims to provide housing for the poorest segments of society.
 - The selection of beneficiaries involves a thorough **three-stage validation process**, including the **Socio-Economic Caste Census 2011**, **Gram Sabha approvals**, and **geo-tagging**, ensuring that aid reaches the most deserving individuals.
- **Under PMAY-G Beneficiaries Receive:**
 - **Financial Assistance:** Rs 1.20 lakh in plain areas and Rs 1.30 lakh in hilly states, including northeastern states and union territories.
 - **Additional Support for Toilets:** Rs 12,000 for constructing toilets through convergence with schemes like **Swachh Bharat Mission – Gramin (SBM-G)** or **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)** or any other dedicated source of funding.
 - **Employment Support:** Mandatory provision of 90/95 person-days of unskilled wage employment for beneficiaries through **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** for house construction.
 - **Basic Amenities:** Access to water, **Liquefied petroleum gas (LPG)**, and electricity connections through convergence with relevant schemes.
- **Cost Sharing:** The Centre and states share expenses in the **60:40 ratio in the case of plain areas**, and **90:10 for Northeastern states**, two Himalayan states (Himachal Pradesh and Uttarakhand) and the Union Territory(UT) of J&K.
 - **The Centre bears 100% cost in the case of other UTs including Ladakh.**
- **Progress Under PMAY-G:** The Government has set an ambitious target to build **2.95 crore houses**. As of August 2024, **2.94 crore houses have been sanctioned**, and **2.64 crore houses have been completed**, significantly improving the living conditions of millions of rural families.
- **Recent Developments:** The Union Cabinet, in August 2024 approved financial assistance for the construction of **two crore additional houses** at the existing unit assistance.
 - The PMAY-G eligibility criteria have been relaxed, and those owning bikes or scooters can now make it to the beneficiary list. People earning up to **Rs 15,000 a month** will now also be eligible for a house (the earlier limit was Rs 10,000).
 - This initiative, set to **span from FY 2024-2029**, aims to address ongoing housing needs, benefiting nearly **10 crore individuals** and ensuring safe, hygienic, and socially inclusive housing for those currently without proper shelter or living in dilapidated conditions.



Note:

Crackdown on NGOs under FCRA, 2010

Why in News?

Recently, the government has cracked down on **five major NGOs** under the **Foreign Contribution Regulation Act, 2010 (FCRA)** due to concerns over their **financial activities** and **objectives**.

- These NGOs include **Oxfam India**, **Centre for Policy Research (CPR)**, **Envionics Trust (ET)**, **Legal Initiative for Forest and Environment (LIFE)**, and **Care India Solution for Sustainable Development (CISSD)**.
- In the recent past, the **International Commission of Jurists (ICJ)** criticised India's FCRA for being **repressive** and should be revised.

What are the Key Allegations Against NGOs?

Issue	Details
Stalling Development Projects	LIFE is accused of being an instrument for US-based NGO EarthJustice to oppose coal mines and thermal power projects in India.
Protest Funding	ET and Survival International allegedly opposed the construction of a thermal power plant in Jharkhand, collaborating with the European Climate Foundation (ECF) to mobilise protests against coal industries in India.
Fund Mismanagement	CPR received foreign funds for its Namati-Environmental Justice Programme , which was reportedly used for litigation instead of specified research or educational activities.
Conspiring with Foreign Agents	Oxfam India is accused of conspiring to halt mining activities in Australia by Indian companies, allegedly supporting Oxfam Australia and working against Indian interests abroad.
Use of Other NGOs for Illegal Activities	After losing its FCRA licence, Oxfam sought "puppet NGOs" with valid permissions to redirect funds for illegal activities, such as providing funds to Josh and Aman Biradari Trust .
Political Agenda	NGOs are accused of promoting specific religious communities or castes rather than serving the public interest as a whole.
Financial Support	Oxfam India allegedly financially supported ET in anti-coal campaigns , particularly the protests in Dhinkia, Odisha .

How FCRA Regulates NGOs Receiving Foreign Funding?

- **Monitoring FCRA:** The Union **Ministry of Home Affairs (MHA)** monitors the implementation of the FCRA.
 - Through the FCRA, the ministry regulates foreign donations to ensure that such funds do not adversely affect the country's **internal security**.
- **Registration Requirement:** Any association, group, or NGO intending to receive foreign donations **must register under the FCRA**. This registration allows NGOs to receive contributions for **social, educational, religious, economic, and cultural programs**.
- **Five-Year Validity of Registration:** Once an NGO registers under the FCRA, the registration is valid for **five years**. After this period, the NGO must apply for a renewal to continue receiving foreign contributions.
- **2010 Legislation and 2020 Amendments:** The original **FCRA Act, 1976** was repealed and replaced by new legislation in **2010** to **modernise the law** governing foreign contributions. In **2020**, additional amendments were introduced to **tighten the regulations** and improve oversight of foreign donations.
- **Purpose-bound Utilisation:** Foreign funds must be used only for the **purpose** for which they were **received**, as stipulated under the Act.
- **Transfer Restrictions:** Registered NGOs are **prohibited from transferring foreign funds** to other NGOs.

Note:

- **SBI Bank Account:** Registered entities must open a **dedicated bank account** in the State Bank of India, Delhi, for receiving foreign funds.
- **Annual Returns:** NGOs are required to **file annual returns**, ensuring transparency in the use of foreign contributions.
- **Prohibited Entities:** The FCRA prohibits candidates for **elections, journalists, media companies, judges, government servants, members of the legislature, political parties**, and organisations of a political nature from receiving foreign contributions.
- **Government's Right to Cancel:** The government can **cancel** an NGO's registration if found **violating FCRA provisions**.
 - Reasons for cancellation include false statements, inactivity for two years, violations of certificate terms, or acts against national interest.

DEVELOPMENTAL GROUPS IN INDIA

Self-Help Groups (SHGs)

- 🕒 Self-governed peer-controlled information group of people with similar socio-economic backgrounds and interests
 - 🕒 Members allowed: 5-20 | Registration not required
 - 🕒 SHGs use savings amounts for giving loans to members
- 🕒 **NABARD's SHG-Bank Linkage Programme (1992)** - To connect SHGs with formal banking institutions
- 🕒 ~88% of SHGs in India have all-women members
- 🕒 **Success Stories:**
 - 🕒 Self-Employed Women's Association (SEWA) since 1972
 - 🕒 Kudumbashree (1998) in Kerala

Cooperative Societies

- 🕒 **People-centred** enterprises, owned, controlled, and run by and for their members.
 - 🕒 Capital raised through shared contributions from members.
- 🕒 **Regulating Acts:**
 - 🕒 Multi-State Co-operative Societies Act, 2002
 - 🕒 State Cooperative Societies Acts
- 🕒 **97th Constitutional Amendment (2011):**
 - 🕒 Right to form cooperatives - a fundamental right (Article 19(1)(c))
 - 🕒 Article 43B (DPSP) - Promotion of Cooperatives
 - 🕒 Part IX-B titled "The Co-operative Societies" (Articles 243-ZH to 243-ZT).
- 🕒 **Examples:** AMUL, IFFCO and PACS

Non-Governmental Organisations (NGOs)

- 🕒 Pursue activities to relieve suffering, promote the interests of the poor, protect the environment, provide basic social services, or undertake community development
- 🕒 **Registered as:**
 - 🕒 **Societies:** Societies Registration Act, 1860
 - 🕒 **Trusts:** Indian Trusts Act, 1882
 - 🕒 **Companies:** Section 8 Companies Act, 2013
- 🕒 **Constitutional Provisions:**
 - 🕒 **Article 19(1)(c)**
 - 🕒 **Article 43**
 - 🕒 **Concurrent List mentions** Charities and charitable institutions
- 🕒 **Prominent NGOs:**
 - 🕒 **NGO Pratham:** Pioneered the **ASER report** to assess the learning levels of children in rural India.
 - 🕒 **Akshaya Patra Foundation:** Provided nutritious mid-day meals to school children.

FCRA mandates registration for all NGOs intending to receive foreign donations.

NGO-DARPAN Platform - An interface between NGOs and Government Bodies.



Note:

What Reforms are Needed to Better Regulate NGOs?

- **Clarity in Definitions:** The government should clearly define terms like **public interest** and **national security** before restricting foreign funding to NGOs.
 - It could reduce the risk of the law being misused against **civil society organisations (CSOs)** genuinely involved in welfare works.
- **Independent Oversight:** Establishing an **independent regulatory body** to oversee the foreign funding of NGOs will ensure **transparent procedures** in their functioning.
- **Tiered Regulatory System:** A **tiered regulation** approach could be adopted for stricter reporting for NGOs involved in national security while easing rules for those in humanitarian or development work.
- **Aligning with International Standards:** Revise the FCRA to align it with **international treaties** and human rights obligations, such as those outlined by the **United Nations Human Rights Council**.
 - It will allow for a fair balance between **national security concerns** and the need for civil society to access international funding.

National Health Account (NHA) Estimates 2020-21 and 2021-22

Why in News?

Recently, the Union Ministry of Health and Family Welfare has released the **National Health Account (NHA)** estimates for the fiscal years 2020-21 and 2021-22.

- These reports are the **eighth and ninth editions of the NHA series**, offering a comprehensive overview of the country's healthcare expenditure.

What are the Key Findings of NHA Estimates for 2020-21 and 2021-22?

- **Rising Government Health Expenditure (GHE):** The share of GHE in **GDP** rose from 1.13% in 2014-15 to 1.84% in 2021-22.
 - The share of GHE in **General Government Expenditure (GGE)** increased from 3.94% in 2014-15 to 6.12% in 2021-22.

- This growth reflects the government's commitment to enhancing public healthcare services, particularly in response to the **Covid-19 pandemic**.

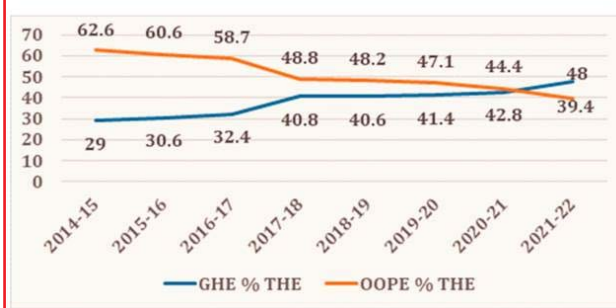
Government Health Expenditure (GHE) as % of GDP



Decline in Out-of-Pocket Expenditure (OOPE):

- From 2014-15 to 2021-22, the share of **OOPE** in **Total Health Expenditure (THE)** decreased from 62.6% to 39.4%.
- This reduction is attributed to government efforts to increase public health spending and improve access to healthcare, thereby reducing financial strain on individuals.
- The government's share in **Total Health Expenditure (THE)** rose from 29% in 2014-15 to 48% in 2021-22.
- This shift indicates **greater reliance on public health services** and a decreased financial burden on citizens.
- The increase in **GHE** reflects the focus on strengthening healthcare infrastructure and enhancing financial protection for individuals.

Government Health Expenditure (GHE) and Out-Of-Pocket Expenditure (OOPE) as % of Total Health Expenditure (THE)



- **Increased Share of Government Health Expenditure in Total Health Expenditure (THE):** The government's share in THE increased from 29% in 2014-15 to 48% in 2021-22.

Note:

- There has been a reduction in the financial burden on citizens.
- The rise in Government Health Expenditure (GHE) **indicates** improved access to medical services and enhanced financial protection for individuals.
- **Total Health Expenditure:**
 - India's THE was estimated at Rs. 7,39,327 crores, **representing 3.73% of the GDP, with** per capita spending of Rs. 5,436 in 2020-21.
 - India's Total Health Expenditure rose to Rs. 9,04,461 crores, **constituting 3.83% of GDP, with a per capita expenditure of Rs. 6,602 in 2021-22.**
- **Growth in Social Security Expenditure (SSE) on Health:** There has been a positive trend in **Social Security Expenditure (SSE)** in the country's health financing.
 - The **share of SSE in Total Health Expenditure rose from 5.7% in 2014-15 to 8.7% in 2021-22.**
 - This includes government-funded health insurance, medical reimbursements for government employees, and social health insurance programs.
 - Increased SSE directly reduces out-of-pocket payments for healthcare.
 - A strong social security mechanism helps prevent financial hardship and poverty when accessing essential health services.
- **Distribution of Current Health Expenditure:**
 - In 2020-21, the **Union Government's share of Current Health Expenditure (CHE)** was Rs. 81,772 crores (**12.33% of CHE**) and **state governments** contributed Rs. 1,38,944 crores (**20.94% of CHE**).
 - By 2021-22, the Union Government's CHE share increased to Rs. 1,25,854 crores (15.94%) and State contributions rose to Rs. 1,71,952 crores (21.77%).

What are National Health Accounts?

- NHA estimates are based on the **globally recognized System of Health Accounts (SHA) framework, established in 2011 by the World Health Organization.**
- This framework allows for inter-country comparisons by providing a **standardised method to track and report healthcare expenditures.**
- The NHA details financial flows within **India's health system**, showing how funds are collected, spent across the healthcare sector, and utilised for healthcare services.

- India's NHA estimates follow the **National Health Accounts Guidelines for India, 2016**, with updates to reflect changes in the healthcare landscape.
- The NHA **methodology and estimates are regularly updated** to align with the dynamic nature of the Indian health system and evolving policies/programs.
 - Continuous improvements are made regarding data availability, estimation methodologies, and stakeholder feedback.

What are the Government's Initiatives Related to Healthcare?

- [National Health Mission](#)
- [Ayushman Bharat](#)
- [Pradhan Mantri Jan Arogya Yojana \(AB-PMJAY\)](#)
- [National Medical Commission](#)
- [PM National Dialysis Programme](#)
- [Janani Shishu Suraksha Karyakram \(JSSK\)](#)
- [Rashtriya Bal Swasthya Karyakram \(RBSK\)](#)

3 Years of Ayushman Bharat Digital Mission

Why in News?

The **Ayushman Bharat Digital Mission (ABDM)** completed its three-year journey on 27th September, aiming to revolutionize the nation's digital healthcare ecosystem by enhancing accessibility, efficiency, and transparency in healthcare.

What is Ayushman Bharat Digital Mission (ABDM)?

- **About:**
 - It was **launched in 2021** with the aim to provide **digital health IDs** for all Indian citizens to help hospitals, insurance firms, and citizens access health records electronically when required.
 - The **National Health Authority (NHA)** under the Ministry of Health and Family Welfare is the implementing Agency of ABDM.
- **Key Features of ABDM:**
 - **Unique Health Identifier for Citizens:** A unique Health **ABHA ID** for each individual to securely store and manage health records.

Note:

- **Healthcare Professionals Registry (HPR):** A comprehensive repository of healthcare professionals across modern and traditional systems, enabling connection to India's digital health ecosystem.
- **Health Facility Registries (HFR):** A comprehensive repository of public and private health facilities across all systems of medicine, including hospitals, clinics, labs, and pharmacies.
- **Unified Health Interface (UHI):** Facilitates the discovery and delivery of health services, thereby streamlining healthcare interactions and improving service accessibility.
- **Data Privacy and Security:** In alignment with the **DPDP Act, 2023**, the ABDM ensures the security, confidentiality, and secure sharing of patient related health information.
- **Transparency:** It offers individuals access to public and private health services, ensures guideline compliance, and promotes transparency in pricing and accountability.

➤ **Key Initiatives:**

- **Scan and Share:** A **QR-code-based OPD registration service** allows patients to scan facility QR codes and share their demographic details, minimising queues and reducing data inaccuracies.
- **Digital Health Incentive Scheme (DHIS):** The **DHIS** encourages hospitals, diagnostic labs, and digital health solution providers to adopt transformative digitization practices through various incentives.
- **Microsites for Private Sector Adoption:** It is aimed at addressing various challenges in ABDM adoption, especially for private sector providers,

has successfully operationalised 106 microsites, surpassing the initial target of 100.

- **End to End ABDM Adoption Pilot:** The pilot aims to **digitise public and private facilities nationwide through** comprehensive ABDM adoption, establishing model facilities as benchmarks for future efforts.
- **New Portals:** The NHA has also developed portals like the **National Medical Register (NMC)** for the **National Medical Commission** and the **National Dental Register (NDR)** for the National Dental Council.

Note:

- National Health Authority (NHA) is the **apex body** responsible for implementing India's flagship public health insurance/assurance scheme.
- It was **established on 2nd January 2019** under the **Society Registration Act, 1860**.



What are the Achievements of Ayushman Bharat Digital Mission (ABDM)?

- **ABHA ID:** By September 2024, **over 67 crore ABHA IDs have been created**, providing citizens with unique digital health IDs for secure access to and sharing of their health records.
 - More than **42 crore health records have been linked to ABHA**, allowing seamless access to medical histories and improving healthcare delivery.
- **Integration:** Over **236 private entities**, including labs, pharmacies, and digital solution companies, have **integrated with the ABDM ecosystem** to support interoperability.

Note:

- **Public institutions** like AIIMS Delhi and AIIMS Bhopal are top performers in generating Scan and Share OPD registrations.
- Leading **private healthcare chains** have also played a major role in the success of the ABDM.
- **National Healthcare Providers Registry (NHPR):** The launch of the NHPR has resulted in the registration of **3.3 lakh health facilities and 4.7 lakh healthcare professionals**.
- NHPR is a comprehensive repository of registered healthcare professionals and health facilities.

What are the Major Concerns Related to Ayushman Bharat Digital Mission (ABDM)?

- **Limited Digital Infrastructure:**
 - Many rural and remote areas suffer from **unreliable internet connectivity and low digital literacy**, hindering effective engagement with and access to the ABDM.
- **Data Privacy and Security Concerns:**
 - The digitization of health records raises **concerns about data privacy, cybersecurity, and consent management**, highlighting challenges in protecting sensitive health information.
- **Cost and Resource Allocation:**
 - High implementation costs and **inadequate government funding for infrastructure, training, and capacity building** make it challenging for smaller healthcare facilities and practitioners to adopt the ABDM.
- **Regulatory and Legal Framework:**
 - The evolving regulatory framework for digital health, including unclear data protection laws and patient consent guidelines, creates ambiguity in accountability and responsibility regarding health data ownership and management.

Social Media Regulation for Children

Why in News?

Recently, the Australian **Prime Minister** has announced a plan to implement a **minimum age for social media usage**, aiming to protect children from potential online harms.

- This initiative is in response to **rising concerns over children's safety online**, especially following the pandemic, which saw increased screen time among youth.

Sharenting: It is a combination of the words "sharing" and "parenting".

- It describes the increasingly popular **habit of parents sharing photos, videos, or other information about their children on social media**.

What are the Global Regulatory Efforts Regarding Social Media Usage?

- **Social Media:**
 - Social media refers to the **means of interactions** (collection of websites and apps) among people in which they **create, share, and/or exchange information and ideas** in virtual communities and networks. Example: **Facebook, Instagram, LinkedIn** etc.
 - A newspaper is a type of print media which is **not considered social media**. It is a traditional form of media that includes magazines, journals, and newsletters.
- **In India:**
 - **Digital Personal Data Protection Act (DPDPA) 2023** aims to **regulate children's use of social media**. Section 9 of DPDPA outlines 3 conditions for handling children's data under the age of 18 years.
 - **Verifiable Parental Consent:** Companies must obtain consent from a parent or guardian.
 - **Alignment with Child Well-being:** Processing of personal data must prioritise the child's well-being.
 - **Restrictions on Monitoring and Advertising:** There is a ban on tracking, behavioural monitoring, and targeted advertising aimed at children.
 - **Karnataka High Court:** In 2023, **Karnataka High Court** suggested to the Union Government to implement an **age limit of 21 for accessing social media**, citing concerns about excessive addiction among schoolchildren and its negative impacts.
- **Global Context**
 - **South Korea:** The **Cinderella Law**, also known as the **Shutdown Law**, restricted children under 16 from playing online games between midnight and 6 AM.

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- The law was passed in 2011 to address concerns about internet addiction and was abolished in August 2021.
- **United States:** The US passed the **Children's Online Privacy Protection Act (COPPA), 1998** that requires websites to **obtain parental consent** before collecting data from children under 13, leading many platforms to restrict access for this age group.
- The Children's Internet Protection Act (CIPA) of 2000 mandates that **schools and libraries** receiving federal funds **filter harmful online content**.
- **European Union:** In 2015, the EU proposed a **law banning children under 16** from accessing the internet **without parental consent**.
 - The **General Data Protection Regulation (GDPR), 2018** sets **strict data privacy standards** in the EU, giving **users control over their personal information** and serving as a global benchmark.
- **United Kingdom:** The UK, while part of the EU, set the age for parental consent for online access at 13. In May 2024, a government panel recommended raising it to 16. The UK also introduced the **Age-Appropriate Design Code**, which requires platforms to prioritise children's safety and privacy by implementing stronger default settings and minimising risks.
- **France:** In July 2023, France passed a **law that requires social media platforms** to block children under 15 without parental authorization, imposing **fines of up to 1% of global sales for non-compliance**.
 - Also, if a **child under 16 works as an influencer and earns income**, their parents **cannot access that income until the child reaches the age of 16**.
- **China:** In August 2023, China set strict limits on children's internet usage: **minors aged 16-18 can use it for two hours daily**, ages 8-15 for one hour, and under 8 for 40 minutes, with access restricted from 10 PM to 6 AM.
 - Exceptions apply for development-focused apps.
- **Brazil:** In April 2023, Brazil enacted child data protection laws to limit how digital companies collect and handle children's data, part of broader efforts in Latin America to enhance online safety for minors.

State of Digital Literacy in India:

- Digital literacy in India is low with **only 40%** of Indians knowing **basic computer functions**, as per **NSSO (National Sample Survey Office) 2021** data.
- A survey in Tier 2 and Tier 3 cities found **80% of children help their parents navigate online platforms**, highlighting a digital gap.
- Additionally, India's **linguistic diversity and common device-sharing practices** make it **challenging to implement consistent digital safety measures** across the population.

What are the Reasons for Regulating Social Media Usage for Children?

- **Safety Concerns:** Increased **exposure to harmful content, cyberbullying, and online predators** poses significant risks to children.
 - Children are also **vulnerable to mental health issues** exacerbated by social media use, including anxiety and depression.
- **Pornography:** The proliferation of explicit content on social media platforms exposes **young people to age-inappropriate material**, potentially shaping their understanding of sexuality and **relationships in unhealthy ways**.
- **Misleading:** Social media can be a source of misleading information, and children may be vulnerable to being influenced by propaganda.
- **Promoting Real-life Connections:** A ban would encourage children to **engage in face-to-face interactions**, fostering better social skills and emotional intelligence.
- **Technological Responsibility:** There are arguments that technology companies should be held accountable for creating safer online environments for children, rather than relying solely on parental oversight.

What are the Issues Against Banning Social Media Usage for Children?

- **Enforcement Challenges:** Bans are difficult to enforce in a digital environment. Children **often find ways to circumvent age restrictions**, as evidenced by the failure of **South Korea's Cinderella Law**.
- **Burden on Parents:** Implementing age restrictions places an unreasonable burden on parents, particularly in regions with low digital literacy.

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- Many parents may lack the skills to navigate online platforms effectively, making it challenging to monitor their children's activities.
- **Loss of Positive Engagement:** Social media can provide valuable opportunities for learning, socialisation, and creativity.
 - A blanket ban may deprive children of these benefits and limit their ability to develop digital skills essential for future employment.
- **Freedom of Expression:** Minors have the right to express themselves and access information. A ban could infringe upon these rights, limiting their ability to engage with diverse ideas and communities.
- **Benefits of Social Media:** Social media fosters community building by connecting young people with supportive networks that affirm their identities, while also serving as a valuable tool for learning and keeping youth informed about global issues and trends.

State Control of Temples

Why in News?

The recent controversy regarding the **Tirupati laddu**, a sacred offering at the **Tirumala Venkateswara Temple**, has highlighted the issue of government control over Hindu temples.

- The detection of **adulterated ghee in the laddus** has prompted renewed demands for freeing these temples from state interference.

Tirumala Venkateswara (Tirupati Balaji) Temple:

- It is situated in **Tirumala, Andhra Pradesh**, on **Venkata Hill**, one of the seven hills (Saptagiri) of the Tirumala Hills.
- It is dedicated to **Lord Venkateswara**, an incarnation of **Lord Vishnu**.
- The temple has a rich history, with significant contributions from various South Indian dynasties, including the **Pallavas, Cholas**, and **Vijayanagara rulers**.
 - It has traditional **South Indian temple architecture**, featuring a towering **gopuram (gateway)** and **intricate carvings**.
- A notable practice at the temple is the **donation of hair by devotees as an offering**.

How are the Places of Worship Managed in India?

➤ Hindu Temples:

- **Government Control:** A majority of Hindu temples are managed under **state regulations**, with many states enacting laws that grant government authority over temple administration.
 - For example, Tamil Nadu's **Hindu Religious and Charitable Endowments (HR&CE)** department oversees temple management, including finances and appointments of temple heads.
 - The **Andhra Pradesh** government oversees and appoints the head of the **Tirumala Tirupati Devasthanams (TTD)**, which manages the **Tirupati Temple**.
- **Income Utilisation:** Revenue from major temples is often allocated for the **maintenance of smaller temples and social welfare** initiatives, such as **hospitals, orphanages, and educational institutions**.
- **Legal Framework:** The power for state intervention is derived from **Article 25(2)** of the Indian Constitution, which allows regulation of economic and social activities related to religious practices to ensure accountability.
 - Hindu temples form the majority of the around 30 lakh places of worship in India (**Census 2011**).

➤ Muslim and Christian Places of Worship:

- **Community Management:** Muslim and Christian places of worship are typically overseen by **community-based boards or trusts**, functioning independently of government control, which promotes a decentralised management approach.

➤ Sikh, Jain, and Buddhist Temples:

- The management of Sikh, Jain, and Buddhist temples is subject to varying levels of government regulation based on the state, while community involvement plays a crucial role in their administration.

➤ State Legislation and Intervention:

- Religious endowments and institutions are listed under the **Concurrent List** of the **Seventh Schedule** of the Constitution, allowing **both the Centre and states** to legislate on the subject. This has led to **diverse regulatory frameworks** across states.

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- Some states, such as **Jammu and Kashmir** with the **Shri Mata Vaishno Devi Shrine Act, 1988**, have enacted **specific legislation for individual temples**, which outlines their administration and funding.

What is the Historical Background of State Regulation of Temples?

- **Colonial Legislation:** Between 1810 and 1817, the East India Company enacted laws in Bengal, Madras, and Bombay, allowing interference in temple administration to prevent income misappropriation.
- **Religious Endowments Act (1863):** This Act of the British government aimed to secularise temple management by transferring temple control to committees but retained government influence through legal frameworks like the **Civil Procedure Code** and the **Charitable and Religious Trusts Act (1920)**.
- **Madras Hindu Religious Endowments Act (1925):** It established the **Hindu Religious and Charitable Endowments Board**, a statutory body and empowered provincial governments to legislate on temple matters, allowing oversight by a board of commissioners.
- **After Independence:**
 - In 1950, the **Law Commission of India** recommended legislation to prevent the misuse of temple funds, leading to the enactment of the **Tamil Nadu Hindu Religious and Charitable Endowments (TN HR&CE) Act, 1951**.
 - It provides for the creation of a **Department of Hindu Religious and Charitable Endowments** for the administration, protection, and preservation of temples and their properties.
 - Around the same time, **Bihar Hindu Religious Trusts Act, 1950** was passed in Bihar to regulate the religious institutions.

What are the Constitutional Provisions for State Regulation of Religion?

- **Article 25:**
 - **Article 25(1)** gives people the **freedom to practise, profess, and propagate their religion** which is **subject to public order, morality, and health**.
 - **Article 25(2)** allows the **state to regulate economic, financial, political, or secular activities linked to religious practices** and to **enact laws for social**

welfare, reform, and opening Hindu religious institutions to all classes of Hindus.

- Hence, the issue of **regulating secular aspects of religious practice** is distinct from **providing access to worship**.

➤ **Judicial Precedents for State Management of Religion:**

- **Shirur Mutt vs. The Commissioner, Hindu Religious Endowments, Madras Case, 1954:** The **Supreme Court (SC)** of India ruled that religious institutions have the right to manage their affairs independently under **Article 26(d)**, as long as they do not engage in activities contrary to public order, morality, or health.
 - However, the state can regulate the administration of religious or charitable institutions. The case set important precedents for the protection of religious freedoms and property rights in India.
- **Ratilal Panachand Gandhi v. State of Bombay Case, 1954:** The SC held that religious practices are as much a part of religion as religious faith or doctrines, but this protection extends only to essential and integral parts of religion and the state can regulate the administration of trust properties.
- **Pannalal Bansilal Pitti vs. State Of Andhra Pradesh Case, 1996:** The SC upheld a **law abolishing hereditary rights over temple management** and rejected the argument that such laws must apply equally to all religions.
- **Stanislaus v. State of Madhya Pradesh Case, 1977:** The SC held that the right to propagate religion under **Article 25 does not include the right to convert** another person to one's own religion. This judgement **upheld the validity of anti-conversion laws**.

Demands for Freeing Temple from Government Control

- **Initial Resolution by RSS (1959):** The **Rashtriya Swayamsevak Sangh (RSS)** passed its **first resolution demanding the freeing of temples from government control**, highlighting the need for Hindu self-management of religious institutions.
- **Kashi Vishwanath Temple Case (1959):** The **Akhil Bharatiya Pratinidhi Sabha (ABPS)** urged the **Uttar Pradesh government** to return the management of the **Kashi Vishwanath Temple** to Hindus, criticising the state's monopolisation of religious affairs.

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- **Recent Developments (2023):** The Madhya Pradesh government initiated steps to relax state oversight of temples, indicating a growing trend toward reassessing government control of religious institutions.

What are the Arguments in Favour and Against the State Control of Places of Worship?

- **Arguments in Favour of State Control:**
 - **Preventing Mismanagement:** Government control ensures **transparency in the administration of temple funds**, preventing misappropriation.
 - **Access for All Castes:** State supervision helps **enforce social reforms**, such as allowing people from all castes to enter Hindu temples.
 - **Welfare Activities:** Large temples **fund welfare activities such as hospitals and schools**. Government oversight ensures these funds are **used for the public good**.
 - **Protection from Commercialization:** The state can protect temples from exploitation by vested interests.
- **Arguments Against State Control:**
 - **Religious Freedom:** **Article 26** of the Constitution guarantees the right of religious denominations to manage their own affairs, and excessive **state intervention is seen as a violation of this right**.
 - **Political Interference:** State control of temples frequently results in **political interference**, with temple resources being manipulated and funds diverted for non-religious purposes.
 - **Discriminatory:** Government control over Hindu temples is seen as discriminatory, as **similar controls are not imposed on other religious places of worship**.
 - **Cultural Autonomy:** Temples are cultural centres, and their management should reflect the **interests and traditions of the local community**, not the state.

State Regulation Regarding Food Eateries

Why in News?

Recently, the **Uttar Pradesh (UP) government** mandated that **food establishments** prominently display the **names of their operators, proprietors, managers**, and other relevant personnel.

- The UP government cited reports of **food adulteration incidents**, such as food items being contaminated with **human waste or other inedible substances** for its latest directives.

What are the Existing Food Safety Requirements Under the Food Safety and Standards Act, 2006 (FSSAI)?

- **Registration or Licence:** Under the FSSAI, food business operators are required to **register or obtain a licence** from the **Food Safety and Standards Authority of India (FSSAI)**.
 - Registration certificates or licences, displaying the **owner's identity** and establishment's location, must be **prominently displayed** at the premises.
- **Penalties for No Licence:** Under **Section 63** of the FSSAI, any operator carrying on a food business **without a licence** can be punished with up to **six months in prison** and a fine of up to **Rs 5 lakh**.
 - This provision reinforces the importance of **proper licensing and display of information**.
- **Non-Compliance with FSSAI Regulations:** If a food business operator **violates** the provisions of the **FSSAI**, they may receive an '**Improvement Notice**' under **Section 31**.
 - If the operator **fails to comply** with the notice, their licence can be **suspended or cancelled**.
 - Additionally, **Section 58** provides for penalties up to **Rs 2 lakh** for violations where no specific penalty is prescribed.

What are State Governments' Power to Make Rules Under FSSAI?

- **State Authority:** **Section 94** of the FSSAI allows **state governments** to make **rules** with the **prior approval** of the FSSAI.
- **Assignment of Additional Functions:** State governments can prescribe **additional functions and duties** for the Commissioner of Food Safety, appointed under **Section 30** of the FSSAI.
 - This includes making rules on matters related to **food safety** within the state's jurisdiction, subject to the central government's oversight.
- **Process of Rulemaking by States:** **Section 94(3)** of the FSSAI requires that any rules made by state

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governments must be published and approved by the [state legislature](#).

What is the Supreme Court Stand on Such Orders?

- The Supreme Court **intervened and stayed** similar orders issued by the **police in Uttar Pradesh and Uttarakhand** for the **2024 Kanwar Yatra**, where food vendors were required to display their identities.
- The court ruled that while the **Food Safety and Standards Act (FSSA)** allows a “**competent authority**” to issue such orders, the **police cannot usurp** this power.

Why are such State Government Directives Challenged in Court?

- **Violation of Article 15:** Critics argue that such directives force individuals to reveal their **religious and caste identities** and **discriminate** against individuals on the grounds of **religion and caste**, violating [Article 15\(1\)](#) of the Constitution.
 - **Article 15(1)** states the State shall **not discriminate** against any citizen on grounds only of **religion, race, caste, sex, place of birth or any of them.**
- **Violation of Article 17:** It may implicitly support the practice of [untouchability](#), which was abolished and forbidden under [Article 17](#) of the Constitution.
- **Violation of Article 19:** Critics argue that the order creates conditions for the complete **economic boycott of specific community** and violates the right to practise any profession under [Article 19\(1\)\(g\)](#).

LIST OF FOOD ADULTRANTS

ADULTERANTS	MILK	HARMFUL EFFECTS
<ul style="list-style-type: none"> Unhygienic water Chalk powder Soap powder Hydrogen peroxide Urea 		<ul style="list-style-type: none"> Food poisoning Heart problems Cancer Vomiting Nausea
<ul style="list-style-type: none"> Papaya seeds 	BLACK PEPPER 	<ul style="list-style-type: none"> Liver disorders Stomach disorders
<ul style="list-style-type: none"> Argemone seeds 	OIL 	<ul style="list-style-type: none"> Epidemic dropsy Severe glaucoma
<ul style="list-style-type: none"> Vegetable oil Animal body fats 	GHEE 	<ul style="list-style-type: none"> Anaemia Enlargement of Heart
<ul style="list-style-type: none"> Brick powder Saw dust 	CHILLY POWDER 	<ul style="list-style-type: none"> Stomach problems Artificial colors can cause cancer
<ul style="list-style-type: none"> Yellow aniline dye Non-permitted colourants like metanil yellow 	TURMERIC POWDER 	<ul style="list-style-type: none"> Carcinogenic Stomach disorders

What are General Provisions to Prevent Food Adulteration under the FSS Act, 2006?

- **Use of Food Additives:** No article of food shall contain any **food additive or processing aid** unless it is in accordance with the provisions of this Act and regulations made thereunder.

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- **Toxic Substances and Heavy Metals:** No article of food shall contain any **contaminant**, naturally occurring **toxic substances or toxins** or **hormone** or **heavy metals** in excess of such quantities as may be specified by regulations.
- **Pesticide and Veterinary Drug Residues:** No food article may contain residues of **insecticides**, **pesticides**, **veterinary drugs**, **antibiotics**, or **microbiological** counts above the limits set by regulations.
 - No **insecticide** shall be used directly on articles of food except fumigants registered and approved under the **Insecticides Act, 1968**.
- **Genetically Modified Foods:** The FSSA restricts the manufacture, distribution, sale, or import of novel foods, **genetically modified foods**, irradiated foods, **organic foods**, health supplements etc unless otherwise provided under the Act and its regulations.
- **Packaging and Labelling:** Food products must be packaged and labelled in accordance with specified regulations.
 - Labels must not contain any **false or misleading claims** about the food products, including their quantity, nutritive value, or any implied medicinal or therapeutic benefits.
- **Unfair Trade Practices:** No person may engage in **unfair trade practices** to promote food articles, which includes making **false representations** about the standard, quality, or usefulness of the foods.

What is the Food Safety and Standards Authority of India?

- **About FSSAI:** FSSAI is an autonomous **statutory body** established under the **Food Safety and Standards Act, (FSSA) 2006**.
 - FSSA, 2006 **consolidates** various laws related to food, such as the **Prevention of Food Adulteration Act, 1954**, the **Fruit Products Order, 1955**, the **Meat Food Products Order, 1973** etc.
- **Functions of FSSAI:** FSSAI is responsible for protecting and promoting **public health** by regulating and supervising food safety and quality in India, operating under the **Ministry of Health & Family Welfare**.
 - FSSAI was consequently established in **2008** but work within the Food Authority effectively began in **2011** after its rules and key regulations were notified.

- **Powers of FSSAI:** Framing of regulations and standards for food products and additives.
 - Granting of **licences and registration** to food businesses.
 - Enforcement of food safety **laws and regulations**.
 - **Monitoring and surveillance** of food safety and quality.
 - Conducting **risk assessment** and scientific research on food safety issues.
 - Providing **training and awareness** on food safety and hygiene.
 - Promoting **food fortification and organic food**.
 - **Coordinating** with other agencies and stakeholders on food safety matters.
- **Structure of FSSAI:** The FSSAI comprises a **Chairperson** and **twenty two members** out of which **one – third are to be women**.
 - The **Chairperson and Chief Executive Officer** of FSSAI, appointed by the central government.
 - The Chairperson is in the rank of **Secretary** to the Government of India.
- **Initiatives of FSSAI:**
 - **World Food Safety Day**
 - **Eat Right India**
 - **State Food Safety Index**
 - **RUCO (Repurpose Used Cooking Oil)**
 - **Food Safety Mitra**
 - **100 Food Streets**

Ensuring Discipline Among Judges

Why in News?

Recently, the **Supreme Court (SC)** expressed **serious concern** over remarks made by a Karnataka **High Court Judge**.

- The SC dropped its intervention after the **judge tendered an apology** but it highlights the **constitutional limitations** on how the judiciary can discipline judges.

What are the Challenges of Disciplining Judges in India?

- **Constitutional Protection:** **Article 121** of the Constitution **prohibits parliamentary discussion** on

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the conduct of Supreme Court or High Court judges, except when a motion is made for their removal.

- **Article 211** of the Constitution **prohibits state legislatures** from discussing the conduct of **Supreme Court or High Court judges** in the discharge of their duties.
- **Difficult Impeachment Process:** **Article 124(4)** of the Constitution requires an **impeachment motion** to be supported by a **majority of the total membership** and at least **two-thirds** of members present and voting in each House.
 - The high impeachment threshold ensures judges aren't easily removed for trivial reasons but **makes addressing misconduct that does not reach the level of impeachment difficult**.
 - E.g. Impeachment proceedings have been triggered **only five times** in history and **no judge** of the Supreme Court has been **impeached so far**.
- **Narrow Definition:** The grounds of removal are **proved misbehaviour or incapacity**.
 - Misbehaviour under **Article 124(4)** of the Constitution is a high standard, covering **corruption, lack of integrity, and moral turpitude**.
 - Many instances of judicial misconduct, such as **indiscipline, bias, or inappropriate conduct**, do not meet the threshold for impeachment, leaving the judiciary with few options to address such behaviour.

What is the Procedure of Removal of Judges?

- A judge of the **Supreme Court** can be removed from his Office by an **order of the President**.
- The President can issue the **removal order** only after an address by **Parliament** has been presented to him in the **same session** for such removal.
- The address must be supported by a **special majority** of each House of Parliament (i.e., a **majority of the total membership** of that House and a **majority of not less than two-thirds of the members of that House present and voting**).
- The grounds of removal are **proved misbehaviour or incapacity**.
- A judge of a **high court** can be removed in the **same manner and on the same grounds** as a judge of the Supreme Court

- The **Judges Enquiry Act, 1968** regulates the **procedure** relating to the removal of a judge of the Supreme Court by the process of impeachment.
 - A removal motion signed by **100 members (in the case of Lok Sabha)** or **50 members (in the case of Rajya Sabha)** is to be given to the Speaker/ Chairman.
 - The Speaker/Chairman may **admit** the motion or **refuse** to admit it.
 - If it is **admitted**, then the Speaker/Chairman is to constitute a **three-member committee** to investigate the charges.
 - The committee should consist of-
 - A chief justice or a judge of the **Supreme Court**
 - A chief justice of a **high court**
 - A **distinguished jurist**
 - If the committee **finds the judge to be guilty** of misbehaviour or suffering from an incapacity, the House can take up the **consideration of the motion**.
 - After the motion is passed by each House of Parliament by **special majority**, an address is presented to the president for **removal of the judge**.
 - Finally, the president **issues an order removing the judge**.

What are Other Provisions of Disciplining Judges?

- **Judicial Intervention:** The SC can take **judicial action** to discipline judges.
 - E.g. In 2017, the SC held Calcutta High Court's **C S Karnan** guilty of **contempt of court**, and sentenced him to six months' imprisonment.
- **Transfer Policy:** The **SC Collegium**, comprising five senior-most judges of the Supreme court including the CJI, recommends the **transfer of High Court judges**.
 - Since the decisions of the Collegium are **opaque**, this transfer policy can be deployed as a **tool to discipline judges** as well.
 - E.g. While impeachment of **Justice P D Dinakaran**, a Karnataka High Court judge pending, the Collegium transferred him to the **Sikkim High Court**.

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- **In-House Inquiry Procedure:** Under the in-house inquiry procedure of 1999, the CJI can request a comment from the **Chief Justice of the relevant High Court**, who then **seeks a response from the judge involved**.
 - If a more **thorough investigation** is deemed necessary, a **three-member committee** comprising two chief justices from other high courts and one high court judge may be formed to conduct a **fact-finding inquiry**.
- **Censure Policy:** The judge concerned can be **advised to resign** from his office or seek **voluntary retirement**.
 - If the judge refuses to resign or retire, the CJI can advise the Chief Justice of the concerned High Court **not to assign any judicial work** to the judge.
- **Restatement of Values of Judicial Life 1997:** The SC adopted a Charter called the **Restatement of Values of Judicial Life** in 1997 consisting of **16 points**.
 - It is a code of **judicial ethics** and serves as a **guide** for an **independent and fair judiciary** which can help in maintaining discipline among judges.

How Discipline of Judges is Maintained Globally?

- **Lithuania:** In Lithuania, there are two institutions dealing with judicial discipline. They are the **Judicial Ethics and Discipline Commission and the Judicial Court of Honour**.
- **Germany:** According to Section 77 of the Judges Act, 1972, **federal states** have their own **special tribunals** for the supervision of judges of common courts.
 - Such a tribunal also exists at the **federal level for federal judges**, as a special senate within the German Federal Court of Justice.
- **Scotland:** The Lord President of the Court of Session may **nominate a person to conduct investigations** into disciplinary procedures.
- **Bangalore Principles of Judicial Conduct:** It aims to set **ethical standards for judges**, providing a framework for **regulating judicial behaviour** and offering guidance on maintaining judicial ethics.
 - It was adopted by the **United Nations Economic and Social Council (ECOSOC)** in 2006.

- **UN Basic Principles on the Independence of the Judiciary 1985:** These principles aim to **bridge the gap between ideal judicial independence and real-world practices**, ensuring justice is maintained, human rights are protected, and the judiciary operates free from discrimination.

What Measures can be Taken to ensure Discipline among Judges?

- **Establishment of a National Judicial Council (NJC):** Revive and pass the **Judges (Inquiry) Bill, 2006**, which aims to create the NJC to **oversee inquiries into allegations of incapacity or misbehaviour by judges**.
- **Judicial Oversight Committee:** Revive and pass the **Judicial Standards and Accountability Bill, 2010** that provided for establishing the **National Judicial Oversight Committee**, the **Complaints Scrutiny Panel**, and an **investigation committee**.
- **Clear Standards of Conduct:** Develop and implement a **Code of Conduct** for judges that outlines **expected behaviour, ethical standards, and procedures for addressing violations**. This code should be publicly accessible to promote accountability.
- **Judicial Performance Evaluation:** Implement a system for evaluating judges' performance based on criteria such as **case disposal rates, adherence to ethical standards, and feedback** from litigants and peers.
 - For example, in **Odisha**, a judicial officer is expected to achieve workout output equivalent to **240 working days in a year**.
- **Asset Declaration and Transparency:** Mandate judges to declare their **assets and liabilities**, and make this information publicly available. This measure can help deter corruption and enhance public trust in the judiciary.
- **Mandatory Training and Workshops:** Institute regular training programs and workshops on **judicial ethics, anti-discrimination laws**, and the importance of impartiality to foster a culture of accountability among judges.
- **Judicial Independence Safeguards:** While enhancing accountability, it is crucial to safeguard **judicial independence**. Any reforms should ensure that the processes for holding judges accountable do not undermine their ability to make impartial decisions.

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Dynamic Nature of the Indian Constitution

Why in News?

Recently, the **Chief Justice of India (CJI)** D.Y. Chandrachud emphasised the **dynamic nature of the Constitution**, asserting that **no single generation can claim a monopoly over its interpretation**.

- CJI emphasised the **Constitution's relevance in its ability to adapt** to changing social, legal, and economic contexts, contrasting this with the **United States doctrine of originalism**.

Why Must Constitutional Doctrine Evolve with Society?

- **Constitution as a Living Document:** CJI highlighted the concept of a **"living Constitution,"** which means the interpretation of the document must change with **evolving societal norms**.
 - This allows constitutional courts to **find solutions for new and novel problems that arise over time**, keeping the document relevant.
- **Different Social Contexts:** According to CJI, **no two generations** read the Constitution in the same social, legal, or economic context.
 - As society evolves, new challenges arise that require fresh interpretations of the Constitution to address contemporary needs, such as **legalising adultery**.
- **Contrast with Originalism:** CJI Chandrachud referenced the **2022 Dobbs v. Jackson Women's Health Organisation** ruling by the US Supreme Court as an example of originalism, where the right to **abortion** was denied because it is not explicitly mentioned in the US Constitution.
 - He contrasted this with India's evolving approach, noting that originalism can lead to a **rigid and restrictive interpretation of citizens' rights**.
- **Inflexibility:** CJI Chandrachud pointed out that rigid adherence to the framers' original intent makes the Constitution inflexible. He emphasised that it was meant as broad, **not iron-clad rules, which should evolve with the times**.
 - Over-reliance on subjective interpretations can lead to **conservative readings, limiting future generations' ability** to address new challenges.

What Role Does Constitutional Flexibility Play in Governance?

- **Support for Progressive Reform:** The Constitution's adaptability allows for reforms that meet current societal demands, from **technological advancements to evolving human rights standards like data protection laws, such as data protection laws**.
- **Fostering Innovation in Law:** A living Constitution creates room for **innovative legal interpretations** that can address emerging challenges, such as **privacy concerns in a digital age**.
- **Safeguarding Citizens' Rights:** A dynamic interpretation of the Constitution helps safeguard rights against conservative readings that could otherwise restrict freedoms.
- **Adaptability:** A flexible constitutional doctrine ensures **institutions remain relevant in a rapidly evolving world**, particularly in a growing **knowledge economy**.
- **Inclusion of New Realities:** The living Constitution doctrine allows the courts to incorporate **new social, economic, and legal contexts** into their interpretations, ensuring that rights evolve with societal advancements.

What is the Nature of the Indian Constitution?

- **Hybrid Structure:** The Indian Constitution **incorporates features of both rigid and flexible constitutions**. This hybrid nature allows for **adaptability while maintaining stability** in the fundamental structure of the Constitution.
 - **Protecting Fundamental Values:** Rigidity ensures the protection of **fundamental rights and basic structure** against arbitrary changes.
 - **Preserving Federalism:** While the federal structure is rigidly defined, necessary changes can be made to adapt to new realities, such as the **concurrent list**.
 - **Balancing Welfare:** The combination of rigid rights and flexible **Directive Principles of State Policy (DPSP)** helps balance individual liberties with collective welfare.
 - **Ensuring Stability:** Rigidity fosters stability by requiring consensus for significant changes, preventing hasty amendments.
 - **Fostering Democracy:** Flexibility in legislative processes promotes democratic governance by allowing elected representatives to respond to public needs while adhering to constitutional limits.

Note:



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➤ **Amendment Procedures:**○ **Article 368 Delineates Two Main Methods of Amendment:**

- **Special Majority of Parliament:** Certain provisions like amending Fundamental Rights require a **special majority** of **Parliament** for amendment, which entails a **two-thirds majority of the members present and voting in each House**, along with a majority of the total membership of each House.

➤ This ensures that significant changes garner substantial parliamentary support.

- **State Ratification:** Other provisions like **election of the President and its manner** necessitate both a **special majority in Parliament and ratification by at least half of the total states**.

➤ This process underscores the **federal structure of India**, ensuring that states have a voice in substantial constitutional changes that affect their governance.

- **Simple Majority Amendments:** Some provisions like **formation of new states** can be amended by a

simple majority in Parliament, following the same procedure as ordinary laws.

- These amendments **do not fall under the purview of Article 368**, indicating that certain aspects of the Constitution can be altered with relative ease.

Cases Related to the Flexibility of the Indian Constitution

- **Golak Nath vs. State Of Punjab Case, 1967:** The **Supreme Court of India** ruled that **Article 368** only lays down the procedure for amending the Constitution, stating that Parliament **cannot curtail the fundamental rights of citizens and that all amendments are subject to judicial review**.
- **Kesavananda Bharati v. State of Kerala Case, 1973:** The Supreme Court ruled that while Parliament has the power to amend the Constitution, it cannot alter its **basic structure**.
 - This case exemplifies flexibility as it allows for amendments while ensuring that **fundamental principles**, like democracy and secularism, remain intact.

What are the Differences Between Flexible and Rigid Constitutions?

Aspect	Flexible Constitutions	Rigid Constitutions
Amendment Procedures	Amendments may become more easy and similar to passing ordinary laws as seen in the United Kingdom's constitution .	Amendments require a complex, specialised procedure, as seen in the United States .
Adjustability to Changing Needs	Easily adapts to societal changes and evolving circumstances. It is viewed as a living document that evolves with societal progress.	Resists changes, prioritising stability over adaptability.
Reflection of Public Opinion	Reflects changing public opinion and societal perspectives.	More likely to reflect the framers' views, less responsive to changes.
Assumption of Perfection	Assumes no constitution is perfect and open to change.	Assumes the constitution is a perfect guide for all times.
Adaptability in Federal Systems	Accommodates the diverse needs of federal units, fostering cooperation.	Provides stability and checks to maintain balance in federal systems.
Protection of Minority Rights	Frequent changes, sometimes influenced by mobocracy (domination by the masses), can negatively impact minority rights .	Offers stronger protection, ensuring minority rights are safeguarded .

Conclusion

The **balance between a rigid and flexible constitution is crucial** for fostering a dynamic legal framework that remains **relevant and responsive** to contemporary challenges. Ultimately, embracing constitutional flexibility is essential for promoting justice, equality, and democratic governance in an ever-changing society.



Note:

Economic Scenario

Highlights

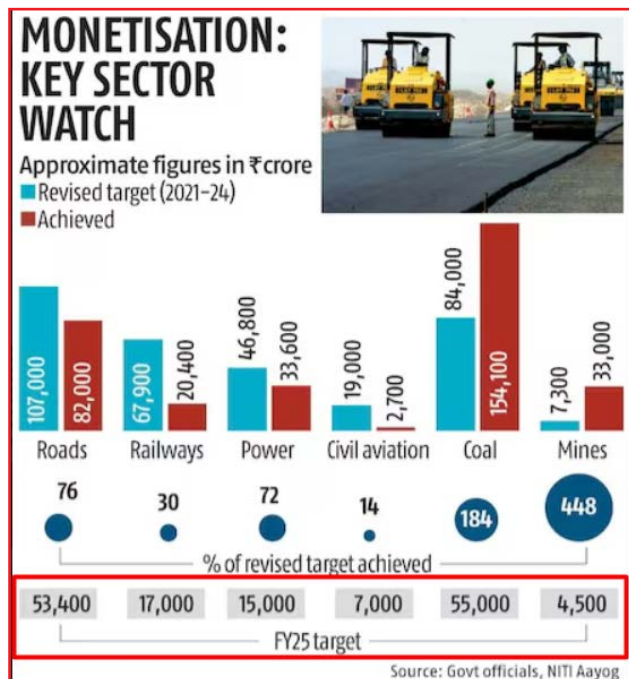
- Raising of Asset Monetisation Target
- GDP Base Year Revision
- Sustainable Agriculture to Recover Groundwater
- National Agriculture Code
- India's Concerns on EU's CBAM and Deforestation Norms
- Middlemen Gain as Farmers Earn Less in Agri Produce: RBI
- Weed-Induced Crop Losses
- 51st meeting of RBI Monetary Policy Committee
- Floriculture in India
- Rationalisation of Agriculture Schemes and Oilseeds Mission
- Functionality and Essentially Test for ITC
- India's Balance of Payments (BOP)
- International Day of Awareness of Food Loss and Waste
- Annual Survey of Industries Report 2022-23

Raising of Asset Monetisation Target

Why in News?

Recently, the **NITI Aayog** has increased the **asset monetisation** target for 2024-25 (FY25) by **Rs 23,000 crore** to **Rs 1.9 trillion**.

- With this, NITI Aayog moved closer to the **overall Rs 6 trillion (Rs 6 lakh crore)** target set under the **National Monetisation Pipeline (NMP)** for a four-year period (FY 2022-25).



What is Asset Monetisation?

- **About Asset Monetisation:** Monetising an asset means **converting** it into a form that can generate **revenue or currency**.
 - Monetising involves using something of value to **generate profit or convert it into cash**. For example, a government may monetise its national debt by acquiring treasury securities, thereby increasing the money supply.
- **Need of Asset Monetisation:** It unlocks the economic value of **underutilised or unutilised public assets** to create new revenue streams for governments and public entities.
 - It aims to identify and leverage these assets to generate financial returns without necessarily selling them outright.
- **Focus on Public Assets:** Public assets that can be monetised include properties owned by public bodies, such as infrastructure like **roads, airports, railways, pipelines, and mobile towers**.
 - The focus is on **brownfield assets**, which are existing assets that can be improved or put to better use.
 - Brownfield assets are those which a private company or investor purchases or leases an **existing infrastructure project or production facility** to carry out new production activity.
- **Monetisation vs. Privatisation:** Privatisation entails complete **ownership transfer** to the private sector, while asset monetisation involves structured partnerships with private entities, allowing public authorities to

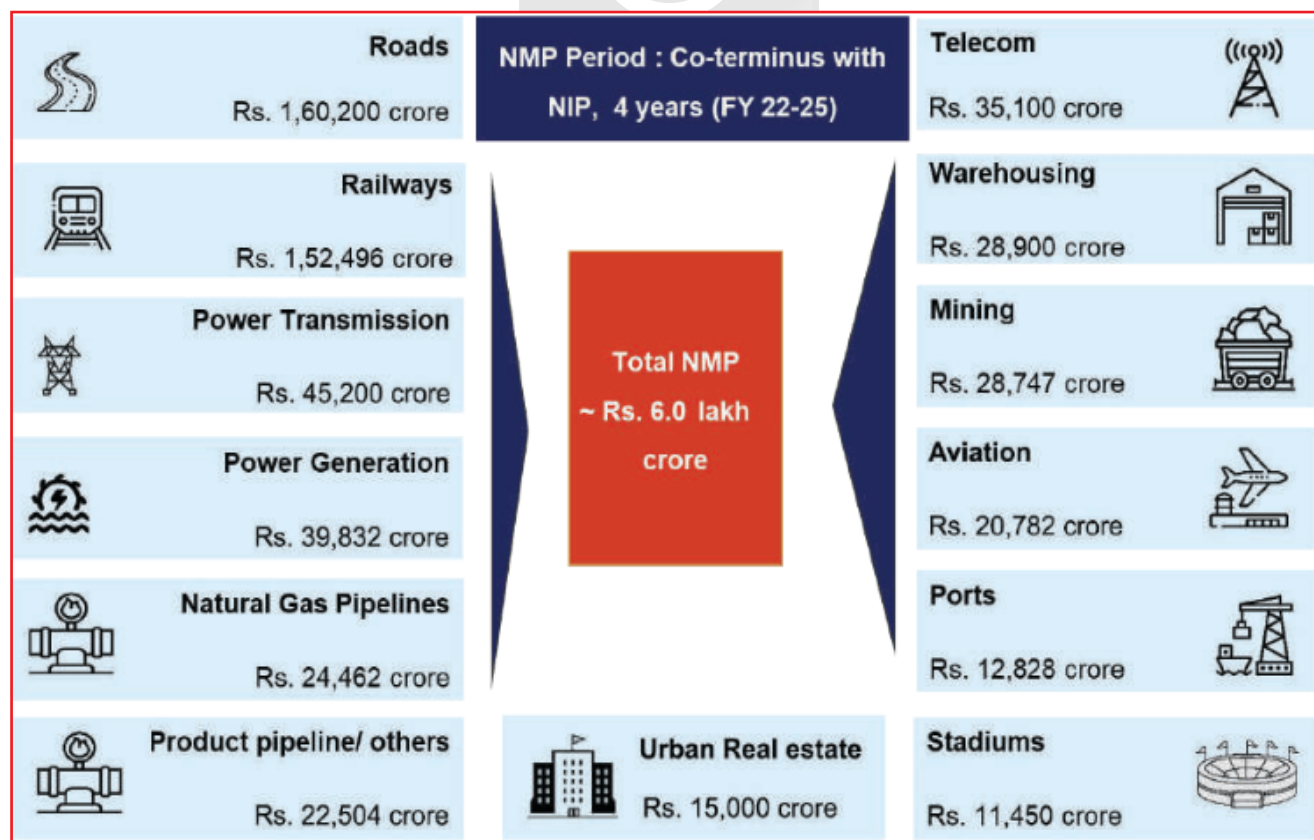
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retain ownership while benefiting from private sector efficiency and investment.

What is the National Monetisation Pipeline (NMP)?

- **About NMP:** The NMP is a key initiative to promote **sustainable infrastructure financing** through the **monetisation** of operating public infrastructure assets.
 - It envisages an aggregate monetisation potential of **Rs 6 lakh crore** through the **leasing of core assets** of the Central government and public sector entities.
- **Preparation of NMP:** The pipeline has been prepared by **NITI Aayog** in consultation with infrastructure line ministries.
 - These include ministries responsible for **Roads, Transport, Highways, Railways, Power, Civil Aviation, Telecommunications**, and others.
 - The NMP targets brownfield infrastructure assets, offering public asset owners a roadmap and providing the private sector with visibility on monetisation opportunities.

- **Sectors and Asset Classes Covered:** The NMP covers a wide array of sectors including roads, ports, airports, railways, gas & product pipelines, power generation and transmission, mining, telecom, warehousing, and more.
 - The **top 5** sectors include **roads (27%** of the total pipeline value) followed by **railways (25%), power (15%), oil & gas pipelines (8%)** and **telecom (6%)**.
- **Monetisation Framework:** The framework for monetisation of **core asset monetisation** has three key mandates.
 - **Monetization of 'Rights' NOT 'Ownership':** The government retains **primary ownership** of the assets and assets are returned to **public authority** after the transaction period ends.
 - **Stable Revenue:** It involves selecting **de-risked brownfield assets** with stable revenue.
 - **Defined Partnership:** Structured partnerships are established under well-defined **contractual frameworks**, with strict key performance indicators (KPIs) and performance standards.



Note:

- **Link with NIP:** The NMP is aligned with the **National Infrastructure Pipeline (NIP)**, ensuring that the monetisation period is **co-terminus** with the NIP, which runs through **FY 2022 to FY 2025**.
 - The purpose of NMP is to reinvest capital into the **Rs 111 trillion National Infrastructure Pipeline**.
 - NIP aims to attract investments in key **greenfield and brownfield projects** across all economic and social infrastructure sub-sectors.
- **Instruments for Monetisation:** The NMP will utilise a **variety of instruments** for asset monetisation, including:
 - **Public-Private Partnership (PPP) concessions** for direct contracts.
 - **Infrastructure Investment Trusts (InvITs)** and other capital market instruments.
 - **InvITs** enables direct investment of money from individual and institutional investors in infrastructure projects to earn a portion of the income as return.

What is the Current Status of the National Monetisation Pipeline?

- **Revenue Generation:** The NMP has generated **Rs 3.9 trillion** in the first three years (up to FY24), achieving most of its **adjusted targets**. The original target for this period was Rs 4.3 trillion.
- **Successful Monetisation:** The **Ministry of Coal** has raised **Rs 1.54 trillion** against its four-year target of Rs 80,000 crore, **far exceeding** expectations.
 - Additionally, **mines** have been monetised to the tune of **Rs 32,000 crore**, surpassing the revised target of **Rs 7,300 crore**.
- **Lagging Sectors:**
 - **Railways:** Despite being a major focus area, the Ministry of Railways has only monetised assets worth **Rs 20,417 crore** over the past three years, meeting just **30% of its revised target**.
 - **Warehousing:** Achieved **38% of its target**, amounting to Rs 8,000 crore.
 - **Civil Aviation:** Lagging significantly, having monetised **only 14% of its targeted Rs 2,600 crore** asset base.

What are Challenges with NMP?

- **Low Monetisation Potential:** The NMP targets the monetisation of Rs 6 lakh crore which is **only 5-6%** of the overall capital expenditure under the **National Infrastructure Pipeline (Rs 111 lakh crore)**.
- **Missing Disinvestment:** The 13 sectors chosen for monetization have consistently **missed their disinvestment targets** year after year in recent years. It raises doubt on achieving actual monetisation targets.
- **Long-Term Rights:** Monetisation could grant private players **long-term rights (up to 60 years)** to operate and profit from public assets. It can be viewed by many as **privatisation** raising suspicion about government motives.
- **Budgeting and Proceeds Usage:** The NMP lacks clarity on how proceeds from monetisation will be accounted for within the budget.
 - There are **no specific guidelines** on whether these funds will finance infrastructure or be used for revenue expenditures, such as salaries or subsidies.
- **Monopolisation:** The consolidation of ownership may lead to **monopolies**, particularly in the case of **highways and railway lines**. It could lead to increased prices.
- **Issue of Taxpayers' Money:** Taxpayers are concerned about **potential double charges** on public assets, as they first funded their creation and now face additional costs for using them through payments to private entities after monetization.

GDP Base Year Revision

Why in News?

Recently, the **Ministry of Statistics and Programme Implementation (MoSPI)** brought together many **economists and forecasters** to discuss the revision of the base year for India's **Gross Domestic Product (GDP)**.

- It underscores the importance MoSPI places on **wider consultation**, especially given the **criticism and debates** surrounding previous base year revisions.
- The previous base year revision in **2015** changed the base year from **2004-05 to 2011-12** but faced **criticism** due to perceived flaws in the methodological changes.

Note:



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What are the Previous Base Year Revision Controversies?

- **Methodological Concerns:** Previous revision of base year replaced computing GDP of the **private corporate sector (PCS)** directly from the **audited balance sheets** of the Ministry of Corporate Affairs (MCA) database and the use of **PCS data for estimating manufacturing sector GVA**.
 - It mostly discarded the **Index of Industrial Production (IIP)** and **Annual Survey of Industries (ASI)** data in the process.
- **Single Deflator Criticism:** Many experts questioned the **single deflator** used to calculate **real GDP growth** from **nominal GDP growth**, rather than the internationally standard technique of **double deflation**.
 - **Single deflator** involves deflating the **nominal value-added** in each sector by various price indices e.g., **CPI, WPI** while **double deflation** involves deflating **output by output prices and inputs by input prices**.
 - The GDP price deflator measures the **change in the value** of all of the goods and services produced in an economy when **inflation is taken into account**.
- **Discrepancies in GDP Estimates:** While overall GDP growth seems robust, **consumption appears weak** and this is a sign of **serious measurement problems**.
 - Also, there is a **discrepancy** between **production methods** and the **expenditure methods** of calculating GDP.
 - Weak consumption may indicate **underreported economic activities** or problems calculation of inflation in GDP calculations.
- **Under-reporting of Data:** In the last three decades, there has been significant growth in the number of **registered companies**, particularly in the services sector, especially finance.
 - However, their contribution to domestic output is unclear because many do not file their **audited balance sheets** with the **Registrar of Companies (RoC)**.
- **Underestimating Unorganised Sector:** The 2015 revision of base year faced criticism for the use of **balance sheets** of the **unorganised sector** to calculate GDP, instead of taking value-added figures from the producing units.

- It means a **lower coverage** for informal sector producers, who are not listed as companies.
- **Averaging Problem:** Averaging production and expenditure sides is acceptable in **advanced countries** but not in developing countries, as India does not measure the two sides of GDP independently.
 - Also, the data on the expenditure side of which consumption is a part is quite poor.

What is a Base Year?

- **About Base Year:** A **base year** is a **specific reference year** against which **Gross Domestic Product (GDP)** figures for subsequent and prior years are **calculated**.
- **Need for a Base Year:** It provides a **stable reference point** and serves as a **benchmark** for measuring economic performance and allows for **comparisons over time**.
 - By pegging GDP figures to a specific year, analysts can accurately **interpret trends and shifts** in economic performance.
- **Features of a Base Year:** The base year should be a **normal year** i.e., it must not experience any **abnormal incidents** such as droughts, floods, earthquakes, **pandemic**, etc. Also, it should **not be too distant** in the past.
- **Reasons for Revising the Base Year:**
 - **Fluid Nature of Indicators:** The indicators for computing GDP are **dynamic** and can change over time due to **shifts in consumer behaviour, economic structure, and commodity composition**.
 - Additionally, evolving data compilation methods may require the incorporation of **new classification systems** and data sources.
 - As such, revisions ensure that the GDP figures reflect the current economic reality.
 - **Impact on Economic Indicators:** When new data sets are incorporated through base year revisions, it can lead to **adjustments in GDP levels**.
 - These changes have a **ripple effect** on a wide array of economic indicators, including trends in public expenditure, taxation, and public sector debt.
 - **International Standard Practice:** **United Nations-System of National Accounts 1993** requires countries to revise computation practices from time to time.

Note:

- **Frequency of Base Year Revisions:** The base year should ideally be revised every 5 to 10 years to keep national accounts in line with the latest available data.
- **History of Base Year Revisions:** Since the first national income estimates were published in 1956 with FY 1949 as the base year, India has revised its base year seven times.
 - The most recent revision changed the base year from FY 2005 to FY 2012.

What are the Considerations for the New Base Year?

- **Formation of the Advisory Committee:** In June 2024, MoSPI set up a 26-member **Advisory Committee on National Accounts Statistics (ACNAS)** to decide the base year for GDP data, under the chairmanship of Biswanath Goldar.
 - The committee will also take a call on the alignment of GDP with other macro indicators like the WPI, CPI, and IIP.
- **Potential Base Years:** The committee is leaning towards 2022-23 as the new base year for GDP, although 2023-24 is also under consideration.
 - Year 2016 (**Demonetisation**), 2017-18 (ripple effects of GST) and 2019-21 (**Covid-19**) are not considered because of abnormal changes in the economy.
- **Utilising GST Data:** Discussions are underway regarding the inclusion of the **Goods and Services Tax (GST) database** for GDP calculations to include new databases to capture a better picture of the economy.
- **Methodological Improvements:** The advisory committee is also considering changing the composition of indices e.g., inclusion of **ASUSE (Annual Survey of Unincorporated Sector Enterprises)** and exploring the double deflation method to improve GDP measurement accuracy.

Sustainable Agriculture to Recover Groundwater

Why in News?

According to the Indian Institute of Technology Gandhinagar, Gujarat, replacing around 40% of the area currently sown with rice with other crops could help

recover 60-100 cubic kilometers of **groundwater** lost in northern India since 2000.

What are the Key Points of the Study?

➤ Key Highlights:

- The prevailing agricultural practices, particularly those centered around **rice cultivation**, heavily depend on groundwater resources for irrigation.
- A continued rise in global temperatures have contributed to the depletion of groundwater reserves, with estimates indicating a potential loss ranging between 13 to 43 cubic kilometers.
 - Such unsustainable cropping patterns, if left unchecked, could significantly strain the already overexploited groundwater resources, further aggravating water security challenges.
- The nexus between agricultural practices and groundwater depletion underscores the urgent need for adaptive strategies in cropping patterns to mitigate the impending ecological crisis.

➤ Impact of Climate Change:

- In comparison, maintaining the existing cropping patterns under global warming scenarios of 1.5 to 3°C would result in a far lower recovery of groundwater, estimated between 13 to 43 cubic kilometers.
 - The 2018 Special Report by the Intergovernmental Panel on Climate Change (IPCC) on Global Warming of 1.5°C warns that, if current trajectories persist, global warming is expected to reach 1.5°C between 2030 and 2050, with a potential rise to 3°C by 2100.

➤ Recommendations:

- The report emphasises the urgent need to alter crop patterns, particularly in Punjab, Haryana, and Uttar Pradesh, to enhance groundwater sustainability while maintaining farmers' profitability.
 - It recommends shifting towards cereals in Uttar Pradesh and oilseeds in West Bengal as alternatives to rice cultivation.
- These findings carry significant policy implications, suggesting that optimal crop patterns must be identified for sustainable groundwater management in irrigated regions of northern India while safeguarding farmers' livelihoods.

Note:



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- These findings carry significant policy implications, suggesting that optimal **crop patterns must be identified for sustainable groundwater management** in irrigated regions of northern India while safeguarding farmers' livelihoods.

Note:

- **Heavy Reliance:** Groundwater accounts for **62% of irrigation, 85% of rural water supply**, and 45% of urban water consumption.
- **Depletion Rates:** India's groundwater depletion rate could triple by 2080, primarily due to climate-induced over-extraction.
- **Over-Extraction:** Several regions, including **Rajasthan, Punjab, Haryana, and Delhi**, extract more groundwater than can be replenished, with withdrawal rates exceeding 100% of available resources.
- **Geographical Disparities:** The **Indo-Ganga-Brahmaputra plains** contain 60% of India's groundwater resources but cover only 20% of the country.
- **Agricultural Dependency:** Over 60% of irrigated agriculture relies on groundwater, putting immense pressure on resources, particularly in agricultural hubs.

What are the Challenges Related to Sustainable Agriculture in India?

- **Water Scarcity:** Over-reliance on **water-intensive crops and inefficient irrigation methods** have resulted in groundwater depletion and water shortages.
- **Climate Change:** Unpredictable **weather patterns, rising temperatures, and increasing frequency of extreme events** such as **floods and droughts** negatively impact crop yields and agricultural sustainability.
- **Fragmented Landholdings:** Small and fragmented farms make it **difficult to adopt sustainable agricultural practices, mechanization**, and efficient resource use.
- **Overuse of Chemical Inputs:** Excessive use of **chemical fertilizers, pesticides, and herbicides** has led to soil and water pollution, harming ecosystems and long-term agricultural productivity.
- **Inadequate Policy Support:** Insufficient **government policies and incentives** specifically promoting sustainable farming practices limit the transition to eco-friendly agriculture.

Government Initiatives Related to Sustainable Agricultural Methods

- **Mission Organic Value Chain Development for North Eastern Region (MOVCDNER)**
- **National Mission on Sustainable Agriculture**
- **Paramparagat Krishi Vikas Yojana (PKVY)**
- **Sub-mission on AgroForestry (SMAF)**
- **Rashtriya Krishi Vikas Yojana**

National Agriculture Code**Why in News?**

The **Bureau of Indian Standards (BIS)** is in the process of formulating the **National Agriculture Code (NAC)**, an ambitious project that seeks to establish standards across the entire agriculture cycle.

- This initiative, modelled after the **National Building Code (NBC) of India 2016** and **National Electrical Code (NEC) of India 2023**, aims to enhance agricultural practices and provide clear guidelines for farmers, policymakers, and other stakeholders.
- In conjunction with drafting the NAC, the BIS is establishing **Standardised Agriculture Demonstration Farms (SADF)** at select agricultural institutes.

Note: The tentative deadline for completing the NAC is set for October 2025.

What is the National Agriculture Code (NAC)?

- **Purpose:** The NAC aims to establish a **standardised framework for agricultural practices** across the entire agricultural cycle, from field preparation to storage of produce. It seeks to address areas that are **currently unregulated by existing standards**.
 - Currently, the BIS has established **standards for agricultural machinery** and inputs, but there remains a **significant gap in the regulation of agricultural practices**.
- **Scope:** The NAC will cover all agricultural processes, including **crop selection, land preparation, sowing, irrigation, soil health management, harvesting, post-harvest operations**, and storage.
 - It will also include standards for inputs like **fertilisers, pesticides, and weedicides**.

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- The NAC will incorporate standards for modern practices like **natural farming**, **organic farming**, and the use of **Internet-of-Things (IoT)** technology in agriculture.
- **Structure:** The code will be divided into **two parts**:
 - The first part will outline general **principles applicable to all crops**.
 - The second part will focus on **crop-specific standards** for various types of crops such as paddy, wheat, oilseeds, and pulses.
- **Objectives:** To create a **national code that considers agro-climatic zones**, crop types, socio-economic diversity, and all aspects of the agri-food value chain.
 - To foster a **quality culture in Indian agriculture** by guiding policymakers and regulators in incorporating NAC provisions into their schemes and regulations.
 - To provide a comprehensive guide for farmers, facilitating informed decision-making in agricultural practices.
 - To address horizontal aspects of agriculture, including **SMART farming**, sustainability, traceability, and documentation.
- **Guidance for Stakeholders:** The NAC will serve as a reference for farmers, agricultural universities, and policymakers, helping them make informed decisions and incorporate best practices into their operations.
- **Training and Support:** After the code is finalised, the BIS plans to provide training programs for farmers to help them understand and implement the standards effectively.

What are the Challenges in formulating a National Agriculture Code in India?

- **Diverse Agricultural Practices:** India has a wide range of **climates (15 agro-climatic zones)** and **soil types**, making it difficult to **create a one-size-fits-all set of standards**. Tailoring the NAC to accommodate these variations can be challenging.
- **State vs. Central Jurisdiction:** **Agriculture is a state subject** in India under the **Entry 14 of the State List in the Seventh Schedule** of the Constitution of India,

which can lead to potential **conflicts between central and state regulations**.

- Harmonising these laws while respecting state rights is a significant challenge.
- **Resource Constraints:** Many smallholder farmers may lack the resources or infrastructure to adopt new practices recommended by the NAC.
 - This includes access to **modern equipment, quality seeds, and efficient irrigation systems**.
 - Engaging these groups in the formulation process is essential to ensure acceptance.
- **Technological Barriers:** While the code aims to promote technology adoption, many farmers may lack access to the **necessary technology or skills**. Addressing these gaps is essential to realise the benefits of the code.
- **Data and Research Gaps:** There may be a lack of comprehensive data on **agricultural practices, yields, and market trends**, hindering evidence-based policy formulation. Addressing these gaps is crucial for creating an effective code.

What Can be Done to Address the Challenges in formulating NAC?

- **Customisation and Flexibility:** Develop region-specific guidelines within the NAC to address the diverse agro-climatic conditions across India.
 - Ensure the NAC is scalable and adaptable to different farm sizes and resource levels, from smallholder farms to large agricultural enterprises.
- **Environmental Considerations:** The code must address issues such as **land degradation, water scarcity, and climate change** while promoting agricultural growth.
- **Capacity Building:** Create hands-on training programs for farmers on the NAC and develop mobile apps like **Meghdoot** and platforms like **e-NAM** and **Kisanbandi** for real-time advice and information sharing.
- **Policy and Regulatory Support:** Establish a supportive legislative framework for the NAC to ensure enforceability and create incentive structures, like **tax benefits and recognition programs**, to reward farmers for compliance.

Note:

Agricultural Policy in Other Countries

- **Common Agricultural Policy (CAP):** Agriculture is the only sector in the **European Union (EU)** with a common policy, the CAP, provides subsidies, direct payments to farmers, supply controls, and overall support for farmers.
- **Growing Forward 2 (GF2):** It is a five-year federal-provincial-territorial policy framework for **Canada's agriculture and agri-food sector**. It focuses on innovation, competitiveness, and market development.

Standardised Agriculture Demonstration Farms (SADF)

- SADF farms will serve as experimental sites to test and implement various agricultural practices and new technologies in line with Indian Standards.
- These farms will offer a platform for extension officials, farmers, and industry professionals to learn about standardised agricultural practices, supported financially by the BIS.

What is the National Building Code of India?

- The NBC is a model code that provides comprehensive guidelines for all agencies involved in building construction.
 - It was first published in 1970, revised in 1983, and in 2005. The current version, **NBC 2016**, was introduced to address the changing landscape of building construction.
- **Key Provisions of the NBC 2016:** Emphasises the involvement of professionals for effective project execution and features a streamlined, **single-window approval process** that allows for enhancing the **ease of doing business** and promotes **Digitalization**.
 - Accessibility requirements have been revised to accommodate **persons with disabilities**. Enhanced **fire and life safety** measures are included, particularly for **complex buildings and high-rises**.
 - The code incorporates modern structural standards for safety against disasters and encourages the use of innovative materials and technologies to promote sustainability in construction.

What is the National Electrical Code (NEC) of India?

- The NEC is an all-inclusive **Electrical Installations Code** prepared by **BIS**, providing guidelines for regulating electrical installation practices across the country.
 - NEC was originally formulated in 1985 and revised in 2011 and 2023 to align with contemporary international practices.
- **Key Provisions of the NEC 2023:** Focuses on protective measures against electric shock, fire, and overcurrent. They address the **design, selection, and maintenance of standby power sources for emergencies**.
 - The guidelines ensure safety against electrical faults in agricultural settings, accounting for **external factors like water and corrosive substances**.
 - Additionally, they categorise hazardous areas based on the likelihood of dangerous atmospheres and provide tailored guidelines, while also offering comprehensive standards for **solar installations**, emphasising safety and quality.

Bureau of Indian Standards (BIS)

- BIS is the **National Standard Body of India** established under the BIS Act 2016 for the harmonious development of the activities of standardisation, marking and quality certification of goods. **BIS has its headquarters at New Delhi**.
- BIS provides traceability, tangibility, safe reliable quality goods, minimises health hazards, promotes exports and imports substitute, and controls proliferation of varieties through standardisation, certification and testing.
- It conducts capacity building programs on quality assurance and represents India in the **International Organization for Standardization (ISO) & International Electro-technical Commission (IEC)**.
 - IEC is an international standard setting body that publishes international Standards for all electrical, electronic and related technologies.
 - **Standardization Management Board (SMB)** is an apex governance body of IEC responsible for technical policy matters.

Note:

India's Concerns on EU's CBAM and Deforestation Norms

Why in News?

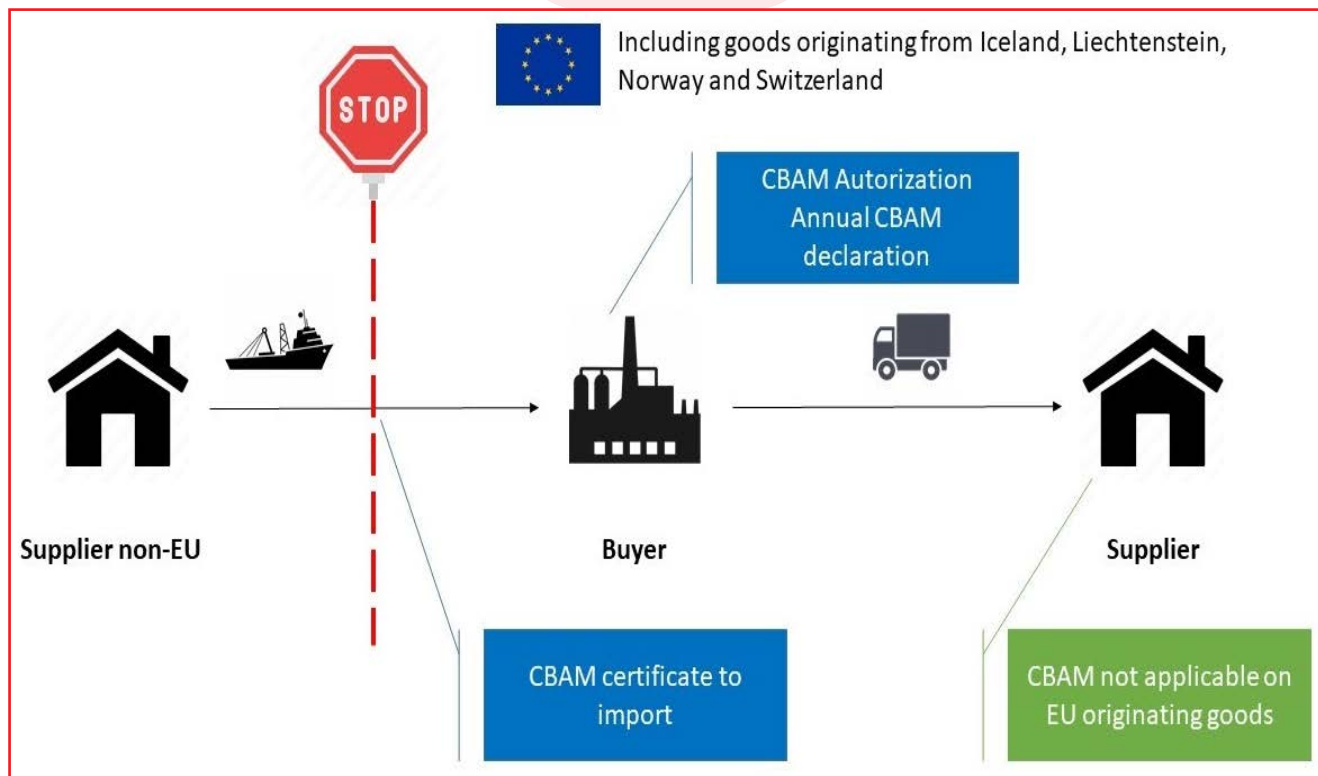
Recently, India's Finance minister termed the European Union's Carbon Border Adjustment Mechanism (CBAM) and European Union Deforestation Regulation (EUDR) as unilateral, arbitrary and a trade-barrier aimed at hurting Indian industries.

What is the EU's Carbon Border Adjustment Mechanism (CBAM)?

- **About CBAM:** It is the EU's tool to put a **fair price on the carbon emitted** during the production of **carbon intensive goods** that are entering the EU, and to encourage **cleaner industrial production** in non-EU countries.
 - It ensures that the **carbon price** for imports matches the carbon price applied to EU-produced goods, maintaining **fair competition**.

➤ CBAM's Functioning Framework:

- **Registration and Certification:** EU importers of goods covered by CBAM will need to **register** with national authorities and **purchase CBAM certificates**, reflecting the carbon emissions embedded in their imports.
- **Annual Declaration:** Importers will need to declare the **emissions embedded in their imported goods** and surrender the corresponding number of certificates annually.
- **Payment of Carbon Price:** Importers need to prove that a **carbon price** has already been paid during production in a **non-EU country** to get the amount deducted from the CBAM payment.
- **Goods Covered by CBAM:** Initially, CBAM applies to **high-risk carbon leakage goods** such as **cement, iron and steel, aluminum, fertilisers, electricity and hydrogen**.
 - Over time, CBAM will capture more than **50% of emissions** from sectors covered by the **EU Emissions Trading System (ETS)** e.g., oil refineries, shipping etc.



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What is European Union Deforestation Regulation (EUDR)?

- **About EUDR:** Operators or traders placing specified commodities on the **EU market or exporting them** must prove their products do not come from **recently deforested land** or contribute to **forest degradation**.
- **Objectives of the Regulation:** The primary objectives include:
 - **Prevention of Deforestation:** Ensuring listed products in the EU do not contribute to deforestation or forest degradation.
 - **Carbon Emission Reduction:** Aiming for a **reduction** of at least **32 million metric tonnes of carbon emissions** annually from these commodities.
 - **Combat Forest Degradation:** Addressing deforestation and degradation caused by **agricultural expansion** related to these commodities.
- **Commodities Covered:** It focuses on commodities such as **cattle, wood, cocoa, soy, palm oil, coffee, rubber, and related products** (e.g., leather, chocolate, tires, furniture).
 - It aims to enhance **transparency and accountability** within supply chains linked to these commodities.

What are Key Concerns Related to EU's CBAM and EUDR?

- **CABM as a Trade Barrier:** CBAM could result in tariffs of **up to 35% on imports** of carbon-intensive goods like cement, aluminium, iron, and steel from India, acting as a **unilateral trade barrier**.
 - This is a significant issue, as over a **quarter of India's exports** of these materials in **2022** were directed to the EU.
- **CBAM as a Tool of Protectionism:** The EU imposes tariffs on carbon intensive steel imports while it continues to produce the **same kind of steel domestically**, using the **proceeds from CBAM** to fund its transition to **green steel** production.
 - CBAM is intended to prevent **carbon leakage**, a phenomenon where EU-based firms shift their carbon-intensive production to countries with **less stringent climate policies**.
- **Threat to Intellectual property rights (IPRs):** CBAM requires exporters to provide up to **1,000 data points** on production methods.

- Indian exporters fear that the detailed data collection could not only **erode their competitive edge** but also risk exposing sensitive **trade secrets**.
 - A trade secret is any **practice or process** of a company that is generally **not known outside of the company**.
- **Impact on India's Trade Dynamics:** The EU represents approximately **14% of India's overall export mix**, which includes significant exports of **steel and aluminium**.
 - India's status as the **EU's third-largest trade partner** and its projected economic growth trajectories imply that the size of Indian exports, including those in CBAM-affected sectors, will likely **increase over time**.
- **Disproportionate Impact:** The **carbon intensity** of Indian products tends to be **higher** than that of their European counterparts.
 - Consequently, the **carbon tariffs** imposed through CBAM would be proportionately higher for Indian exports.
- **Non-Compliance with WTO Norms:** Indian government raised concerns about whether CBAM complies with **World Trade Organization (WTO)** norms.
 - It creates uncertainty and additional challenges for countries like India despite meeting **international commitments**.
- **EUDR as Non-Tariff Barrier:** EUDR mandates that importers of commodities like **cattle, soy, palm oil, coffee, and wood** certify that their products do not come from recently deforested land or contribute to forest degradation.
 - India views this regulation as another form of **protectionism and a non-tariff barrier (NTBs)**.
 - A non-tariff barrier is a trade restriction other than a tariff. NTBs include quotas, **embargoes, sanctions, and levies**.
- **Barrier to Net-Zero Emissions Target:** CBAM imposed by the EU will hinder India meeting **net-zero carbon emission goal** by 2070.
- **Slowing FTA Negotiations:** Sustainability measures like CBAM and the EUDR have become **contentious issues** in the ongoing **India-EU FTA negotiations**.
- **Previous Tariff Barriers:** EU's steel tariffs have caused India **USD 4.41 billion in trade losses between 2018 and 2023**.

Note:

- These steel tariffs were part of the EU's safeguard measures, which were initially set to expire in June 2023 but have been extended.
- **Potential for Global Policy Replication:** The implementation of CBAM may **prompt** other countries to **adopt similar regulations**, potentially leading to additional tariffs or regulations in major markets.
- This trend could complicate India's trading relationships and impact its balance of payments.

Middlemen Gain as Farmers Earn Less in Agri Produce: RBI

Why in News?

The four working papers released by the **Reserve Bank of India (RBI)**, indicated that during periods of **high inflation** in the **fruits and vegetables sector**, **middlemen and retailers** appeared to capture a significant portion of the price paid by consumers, thereby **benefiting at the expense of farmers**.

Inflation

- **Definition:** Inflation is defined as the rate at which the **general level of prices for goods and services rises**, leading to a **decrease in purchasing power**.
- **Measurement:** In India, inflation is mainly measured through 2 price indices – the **Wholesale Price Index (WPI)** and the **Consumer Price Index (CPI)**.
- **Types of Inflation:**
 - **Demand-Pull Inflation:** Occurs when **demand for goods and services exceeds supply**.
 - **Cost-Push Inflation:** Results from an **increase in the costs of production**, leading to **higher prices** for consumers.
 - **Structural inflation:** It is a type of inflation that's caused by **structural weaknesses in an economy**, and is often experienced in developing countries.
- **Impact on Economy:** **Moderate inflation** is considered a **sign of a growing economy**, but high inflation can erode purchasing power, create uncertainty, and negatively impact savings and investments.

What are the Key Findings of the RBI Papers?

- Four working papers from the **RBI's Department of Economy & Policy Research** found that farmers received a much lower share of the consumer rupee in the case of fruits (e.g., bananas, grapes, mangoes) and essential vegetables (e.g., tomatoes, onions, potatoes) compared to dairy, poultry, and pulses.
- According to the paper **Livestock and Poultry Inflation in India:**
 - Farmers receive about **70% of the consumer rupee for milk and 75% for eggs**.
 - For poultry meat, farmers and aggregators together receive about 56%.
 - The **Consumer Price Index (CPI) for Milk** shows price fluctuations influenced by factors like **feed costs and availability**.
 - Higher availability of milk results in lower prices.
 - Higher feed costs lead to increased milk prices.
- The paper **Price Dynamics and Value Chain of Fruits in India** estimates:
 - Farmers receive **about 31% of the consumer rupee for bananas**, 35% for grapes and 43% for mangoes.
 - Grape farming is **capital and labor-intensive** and price volatility is influenced by **seasonality, climate conditions, and input costs**.
 - Grape production is concentrated in **Maharashtra and Karnataka**.
 - Exports grapes primarily to the **Netherlands and Bangladesh**, while imports from **China**.
- The paper **Pulses Inflation in India** finds:
 - Farmers receive 75% of the consumer rupee for gram (chana), 70% for moong and 65% for tur.
 - Both demand and supply-side factors, such as **stock levels, rural wages, input costs, and structural bottlenecks**, are determinants of pulses inflation.
- The paper **Vegetables Inflation in India** estimates:
 - Farmers receive **33% for tomatoes, 36% for onions, 37% for potatoes**.
 - Key factors affecting vegetable inflation are **input costs, rainfall, and wages, along with supply-side shocks** like weather conditions and market behavior.

Note:



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- Vegetable prices are highly volatile due to **short crop cycles, perishability, regional production concentration, and seasonal weather** conditions.

RBI's Department of Economy & Policy Research

- It serves as a knowledge hub focused on **macroeconomic policy-oriented research** to support policy-related decision-making.
- The department's research agenda addresses key macroeconomic challenges in India, covering areas such as **monetary policy, growth and inflation dynamics, financial markets, macroeconomic forecasting, the banking sector, financial stability, and external sector management**.
- The DEPR is responsible for publishing the **RBI's key statutory reports**, including the Annual Report and the Report on Trend and Progress of Banking in India.
 - It also publishes other important resources such as State Finances (A Study of Budgets), and the Handbook of Statistics on Indian States.

What are the Measures Suggested by the RBI Research Papers?

➤ Fruits and Vegetables:

- **Expanding Private Markets:** To reduce dependency on middlemen and enhance market access for farmers.
 - Expanding such markets can **encourage competitive pricing and reduce the inefficiencies** in traditional wholesale markets (mandis).
- **Government Initiatives:** Measures such as **buffer stocks, Price Stabilization Fund (PSF)**, and the **Operation Greens** scheme aim to reduce price volatility and increase value realization for farmers.
- **Enhancing Use of the e-NAM Platform:** Promoting the use of the **National Agriculture Market (e-NAM) platform** is critical for ensuring transparency and reducing price distortions.
- **Promoting Farmer Collectives:** **Farmer Producer Organizations (FPOs)** are being promoted to **empower small and marginal farmers**.
 - FPOs can **help farmers pool resources, enhance bargaining power**, and improve access to inputs, credit, and markets.
- **Building Cold Storage Facilities:** To **minimise post-harvest losses**, particularly for perishable fruits and

vegetables. **India loses about 30-40% of its fruits and vegetables due to inadequate cold storage.**

- Increased investment in cold chain infrastructure can extend the shelf life of produce, stabilizing prices and benefiting both farmers and consumers.

➤ Pulses:

- **Infrastructure Improvements:** Need for **structural reforms in agricultural markets** such as **investment in rural infrastructure**.
 - These measures are **essential for ensuring sustained price stability** and improving farmers' income over the long term.
- **Varietal Development for Higher Yields:** Promote **climate-resilient and short-duration seed varieties** to enhance production.
 - For example, **ICAR's Pusa Arhar-16** reduces the maturity period of tur from 180 to 120 days, **increasing yield by 15%**.
- **Scaling up Procurement and Buffer Reserves:** Strengthen government procurement of domestic and imported pulses for market intervention.
 - **National Agricultural Cooperative Marketing Federation of India's** strategic buffer stock has helped manage inflation.

➤ Milk:

- **Rationalising Trade Policy:** Adjust **tariffs on imported products** like **skimmed milk powder (SMP) and butter** to stabilise prices, while protecting domestic farmers.
- **Promoting Germplasm Imports:** Relax restrictions on **importing cattle/buffalo germplasm** to introduce temperate breeds for crossbreeding, thus boosting milk productivity in the medium to long term.
- **Enhancing Value Chain Infrastructure:** Prioritise investment in **bulk milk chilling (BMC) centers**, modern dairy plants, and small processing units.
 - **Improved processing and storage infrastructure** will enhance the export competitiveness of dairy products.
- **Integrated Animal Health Plans:** Establish fast medical response units to tackle frequent disease outbreaks like **foot-and-mouth disease**.

Note:

- **Policy Suggestions for Poultry Sector:**
 - **Removing Trade Policy Distortions:** Rationalise duties on poultry imports, particularly during periods of high demand, to reduce meat inflation and increase market competition.
 - **Developing Infrastructure:** Encourage **FDI** and **public-private partnerships (PPP)** to improve cold chain facilities, processing infrastructure, and farm management.
 - **Reducing Production Costs:** Prioritise policies to **enhance high quality maize and soybean productivity**, as they constitute **the bulk of poultry feed costs**.
 - **Institutional Support for Small Producers:** Encourage the **collectivisation of small poultry farmers** to improve access to quality inputs and markets.
 - Cooperative models such as **Amul** could help smallholders reduce transaction costs and gain fair prices.

What are the Key Initiatives Related to Agriculture?

- [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#)
- [Soil Health Card Scheme](#)
- [Pradhan Mantri Krishi Sinchai Yojana \(PMKSY\)](#)
- [e-National Agriculture Market \(e-NAM\)](#)
- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Digital Agriculture Mission](#)
- [Unified Farmer Service Platform \(UFSP\)](#)
- [National e-Governance Plan in Agriculture \(NeGP-A\)](#)
- [Mission Organic Value Chain Development for North Eastern Region \(MOVCDNER\)](#)

Weed-Induced Crop Losses

Why in News?

According to a study by the **Federation of Seed Industry of India (FSII)**, **weeds** are causing Rs 92000 crore (USD 11 billion) worth of **loss in crop productivity** each year.

- The report highlights the need for **technology-led weed control strategies** to mitigate this growing problem.

What are the Key Points of the Study?

- **Yield Loss Statistics:** Weeds account for approximately **25-26%** of yield losses in **kharif crops** and **18-25%** in **rabi crops** across India.

- **Diverse Crops and Regions:** The study covered **seven major crops—rice, wheat, maize, cotton, sugarcane, soybean, and mustard**, across 30 districts in 11 states.
- **Stakeholder Involvement:** Researchers interviewed 3,200 farmers, 300 dealers as well as officials from, **Krishi Vigyan Kendras**, and Agriculture Department.
- **Average Expenditure:** The average weed control expenditure ranges from Rs 3,700 to Rs 7,900 per acre.
- **Weed Management Strategies:** The study recommends herbicides, mechanization, crop rotation, cover cropping, and biological control, which could reduce costs by 40-60% compared to traditional methods.

Federation of Seed Industry of India (FSII)

- FSII is a 40-member association **representing the R&D-driven plant science industry** in India.
- It is involved in the production of high-quality seeds for food, feed, and fibre, supporting the country's agricultural sector.
- FSII promotes the adoption of technology-driven farming solutions that improve agricultural productivity while reducing both pre-harvest and post-harvest losses in a sustainable manner.
- It is affiliated with international bodies like the **International Seed Federation (ISF)** and the **Asia and Pacific Seed Association (APSA)**, enhancing its global outreach and collaboration.

What are Weeds?

- **About:**
 - Weeds are typically unwanted plants that thrive in ecosystems where they disrupt agricultural or ecological balance. Examples include **nut grass, portulaca, common couch, and leucaena**.
- **Characteristics:**
 - They are characterized by their ability to **aggressively compete with cultivated crops** and other vegetation for essential resources.
 - Weeds exhibit significant **resilience and adaptability to diverse environmental conditions**, allowing them to colonize various habitats rapidly.
 - Weeds often grow quickly and reproduce in large numbers, primarily through **seeds, rhizomes, or other vegetative structures**, facilitating their spread.

Note:



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What are the Challenges Posed by Weeds?

- **Reduction in Agricultural Productivity:** Beyond costs, **weeds are a leading cause of crop loss**, competing for resources from the preparatory tillage stage to the post-harvest stage.
 - Weed compete with crops for essential resources such as water, nutrients, **sunlight, and space** which can result in lower yields and reduced crop quality.
- **Increased Farming Costs:** Weed management requires significant investments in terms of **labour, herbicides, and other control methods** which can increase the overall expenses of farming operations.
- **Herbicide Resistance:** Continuous **use of herbicides** has led to the development of herbicide-resistant weed species. This **complicates control efforts and** necessitates the use of alternative or more expensive methods to manage resistant populations.
- **Depletion of Soil Health:** Some weed species can degrade soil quality by **altering its nutrient balance or increasing soil erosion**. Their aggressive root systems may also hinder the growth of other plants, leading to long-term soil degradation.
- **Increased Pest and Disease Risks:** Weeds often serve as hosts for various pests and pathogens, providing **breeding grounds for insects and diseases** that can then spread to nearby crops, further aggravating agricultural challenges.

What are the Benefits of Weed?

- **Habitat and Food for Wildlife:** Weeds provide **habitat and food sources for various insects, birds, and small animals**. They play a role in maintaining biodiversity by supporting ecosystems with secondary species that rely on their presence.
- **Medicinal and Nutritional Uses:** Some weeds have medicinal properties or are used as **natural remedies in traditional medicine**. For example, plants like **dandelion and nettle** are known for their health benefits. Certain weeds are also edible and provide nutrients when used as food.
- **Natural Pollinator Attractants:** Many weeds **produce flowers that attract pollinators such as bees, butterflies, and other beneficial insects**. By supporting pollinator populations, weeds indirectly enhance the productivity of nearby crops and plants.

What are the Challenges in Implementing Effective Weed Management Strategies?

- **Weed Resistance:**
 - Over Reliance on herbicides can lead to the development of herbicide-resistant weed strains, making it more difficult to control them over time.
- **Labor Shortages:**
 - With a declining agricultural labor force and increased rural-to-urban migration, **manual weeding is becoming less feasible**.
- **High Costs:**
 - Although technological solutions like **herbicides and mechanization** can reduce costs, the initial investment for these technologies may be **prohibitive for small-scale farmers**.
- **Environmental and Health Concerns:**
 - The excessive use of chemical herbicides can lead to **environmental degradation, water contamination, and potential health risks** for both farmers and consumers.
- **Integration with Organic and Natural Farming:**
 - There is a challenge in aligning chemical and mechanical **weed management** techniques with **organic and sustainable farming practices**, which aim to minimize external inputs like herbicides.

Note:

What are the Government Initiatives Related to Agriculture?

- [Pradhan Mantri Kisan Samman Nidhi \(PM-KISAN\)](#)
- [Pradhan Mantri Fasal Bima Yojana \(PMFBY\)](#)
- [Pradhan Mantri Krishi Sinchai Yojana \(PMKSY\)](#)
- [National Mission on Sustainable Agriculture](#)
- [Paramparagat Krishi Vikas Yojana \(PKVY\)](#)
- [Unified Farmer Service Platform \(UFSP\)](#)
- [National e-Governance Plan in Agriculture \(NeGP-A\)](#)
- [Mission Organic Value Chain Development for North Eastern Region \(MOVCNDR\)](#)

51st Meeting of RBI Monetary Policy Committee

Why in News?

Recently, the 51st [Monetary Policy Committee \(MPC\)](#) meeting of the [Reserve Bank of India \(RBI\)](#) was chaired by the RBI Governor.

What are the Key Decisions Taken at the 51st MPC Meeting?

- **Unchanged Repo Rate:** Monetary Policy Committee (MPC) decided to keep the [repo rate](#) unchanged at 6.5% for the 10th consecutive time.
- **Change in Monetary Policy Stance:** The MPC changed the policy stance to 'Neutral' from 'withdrawal of accommodation'.
 - **Neutral stance** allows the MPC greater flexibility to adjust monetary policy as needed while "withdrawal of accommodation" means **restrictive monetary policy** stance where the RBI aims to **reduce the money supply** in the economy (curb inflationary pressures).
 - When the **RBI withdraws accommodation**, it signals that it is **less inclined to support economic growth through lower rates**, focusing instead on stabilising prices.
- **Inflation Targets:** The RBI has retained its [Consumer Price Index \(CPI\)](#) inflation forecast for FY2025 at 4.5%.
 - **Flexible Inflation Targeting (FIT)** was introduced in 2015 to control inflation with a **target of 4% (±2%)** while allowing temporary deviations to support economic growth.

- **Real GDP Growth Projections:** The RBI kept its real **GDP growth projection** for FY25 at **7.2%**. India's **growth story remains strong**, driven by private consumption and investment demand.
- **Hike in UPI123PAY Transaction Limit:** The RBI has hiked the [UPI 123PAY](#) per transaction limit to **Rs 10,000** from **Rs 5,000**.
 - RBI announced a hike in the [UPI lite](#) per transaction limit to **Rs 1,000** from **Rs 500**. RBI also hiked the **UPI lite wallet limit** to **Rs 5,000** from currently **Rs 2,000**.
 - **UPI 123PAY** is a payment system mainly for **non-smart phone/feature phone** users by which they can make payment **using UPI without internet connectivity**.
- **Reserve Bank-Climate Risk Information System (RB-CRIS):** RBI has proposed to create a **data repository** namely RB-CRIS to bridge the **gap in climate-related data** that is currently available in a fragmented manner.
 - It will undertake **climate risk assessments** for ensuring **stability of balance sheets** of financial entities and that of the **financial system**. It will be in **two parts**.
 - The first part will be a **web-based directory** listing various publicly accessible **meteorological and geospatial data** sources on the RBI's website.
 - The second part will be a **data portal with standardised datasets**, accessible only to **regulated entities** in a phased manner.
- **Direction of NBFCs:** RBI issued a strong advisory to **non-banking financial companies (NBFCs)**, **microfinance institutions (MFIs)** and **housing finance companies (HFCs)**, to follow a '**compliance first**' culture and take a sincere approach to customer grievances.
 - Compliance first culture prioritises adherence to **laws, regulations, and internal policies** above other business considerations.

Note: The MPC determines the policy **repo rate** required to achieve the inflation target while **other decisions** are taken by the RBI.

- **UPI Lite** is a new payment solution that leverages the trusted **NPCI Common Library (CL)** application to process **low value transactions**.
- UPI lite wallet is a **digital wallet** where you **load money from your bank account** to make online transactions.

Note:

What is RBI's Stance on NBFCs in the 51st meeting of RBI MPC?

- **Growth at Any Cost Approach:** RBI Governor expressed concerns regarding the “**growth at any cost**” mentality prevalent among some NBFCs while **ignoring sustainable business practices** and robust risk management frameworks.
- **Review of Compensation Practices:** RBI has directed NBFCs to reassess how they structure their **employee compensation**, especially regarding **bonuses and incentives** linked to short-term performance goals.
 - The RBI is concerned that such practices may encourage **risky or unsustainable behaviours** focused solely on immediate results.
- **Usurious Practices:** Concerns were raised about NBFCs charging **high-interest rates** and imposing unreasonably **high processing fees and penalties**.
- **Push Effect of Growth Targets:** RBI Governor highlighted that aggressive growth targets could lead to **retail credit growth** that does not align with actual demand.
 - It could potentially lead to **high indebtedness** posing financial stability risks.
- **Investor Pressure:** Some NBFCs, including MFIs and HFCs are driven by **investor pressure** to achieve excessive **returns on equity (RoE)**.
 - RBI urged NBFCs to adopt **sustainable business goals** and asked not to compromise long-term sustainability for short-term gains.

What are Non-Banking Financial Companies (NBFCs)?

- **About NBFCs:** A Non-Banking Financial Company (NBFC) is defined as a company that operates under the **Companies Act, 1956** and is primarily involved in **providing loans and advances**, acquiring **financial securities** such as shares, bonds, and debentures, as well as engaging in **leasing and hire-purchase transactions**.
 - However, **NBFCs do not** encompass institutions whose **principal business** involves **agriculture, industrial activities**, the purchase or sale of goods (except securities), providing services, or dealing with **immovable property**.

- **Criteria for Classification:** NBFC must conduct financial activities as its principal business. This means that more than **50% of its total assets** should be in financial assets, and similarly, income from financial assets must exceed **50% of its gross income**.
 - This classification criteria is often referred to as the **50-50 test**.
- **Differences Between Banks and NBFCs:** Although NBFCs perform functions similar to banks, several key differences exist.
 - NBFC **cannot accept demand deposits**.
 - NBFCs **do not form part of the payment and settlement** system and **cannot issue cheques** drawn on itself.
 - **Deposit insurance facility** of **Deposit Insurance and Credit Guarantee Corporation** is **not available** to depositors of NBFCs, unlike in case of banks.
- **Registration Requirements for NBFCs:** Under the **RBI Act, 1934**, it is **mandatory** for every NBFC to obtain a **certificate of registration** from the RBI before commencing its operations.
 - Additionally, an NBFC must maintain a **minimum Net Owned Funds (NOF) of Rs 25 lakhs (or Rs 2 crore since April 1999)** to qualify for registration.
- **Exemptions from Registration:** Certain categories of NBFCs are **exempt** from registration with the RBI because they are regulated by other authorities. E.g.,
 - **Venture Capital Funds:** Regulated by the **Securities and Exchange Board of India (SEBI)**.
 - **Insurance Companies:** Regulated by the **Insurance Regulatory and Development Authority (IRDA)**.
 - **Housing Finance Companies:** Regulated by the **National Housing Bank (NHB)**.
- **Recent Trends in NBFCs:** In FY24, NBFCs' **assets under management (AUM)** grew **18% to Rs 47 trillion** while **NPA ratio** stood at **2.6%** as of June 2024.
 - It is **growing** at a healthy rate of **18% annually**.

Note:

What is the Monetary Policy Committee?

Monetary Policy Committee



Monetary Policy

- It is formed and managed by **Reserve Bank of India** to control a nation's overall money supply and achieve economic growth
- It is **different from Fiscal Policy** which is managed by the **Ministry of Finance** that measures the spending and taxation in Indian Economy

Monetary Policy Committee (MPC):

- **Ex-officio Chairperson:** RBI Governor
- **Objective:** To determine the policy rate required to achieve the inflation target ($4\pm 2\%$, Urjit Patel Committee)

- **Legal Framework:** Under Section 45ZB of the amended RBI Act, 1934, the Central Government is empowered to constitute a six-member Monetary Policy Committee (MPC)
 - The MPC is required to meet at least four times in a year. Each member of the MPC has one vote, and in the event of an equality of votes, the Governor has a second or casting vote.
- **Monetary Policy Report:** RBI once in every six months, releases Monetary Policy Report to explain the sources of inflation and the forecast of inflation for 6-18 months ahead



Floriculture in India

Why in News?

The Jujumara region in Odisha's Sambalpur district is home to one of the **first Farmer Producer Organizations (FPO)** in the state dedicated **exclusively to floriculture**, transitioning from **traditional paddy farming**.

- With support from the **National Botanical Research Institute (NBRI)**, local farmers are adopting flower cultivation, resulting in significant economic improvements.

What is Floriculture?

- **About:** Floriculture involves the **cultivation of flowering and ornamental plants** for various purposes, such as direct sale, cosmetics, perfume, and pharmaceutical industries.
 - It includes **seed and plant material production** through techniques like cutting, grafting, and budding.
 - The **Agricultural and Processed Food Products Export Development Authority (APEDA)**, the nodal organisation for promotion of agri-exports including flowers.
- **Market of Floriculture in India:** The government of India has identified floriculture as a **"sunrise industry"**.
 - About **297 thousand hectares** of the area were under Cultivation for floriculture in 2023-24 (2nd Advance Estimate).
 - India exported around 20,000 metric tonnes of floriculture products worth Rs 717.83 crores in 2023-24, with major importers including the **United States of America (USA), the Netherlands, the United Arab Emirates, the United Kingdom, Canada, and Malaysia**.
 - Due to the exceptional performance of the sector, it is expected to grow to USD 5.9 billion by 2030 with a **Compounded Annual Growth Rate (CAGR)** of 7.4% (2021-2030).
- **Varieties:** India's floriculture industry covers cut flowers, pot plants, bulbs, tubers, and dried flowers.
 - The important floricultural crops in the **international cut flower trade** are Rose, Carnation, Chrysanthemum, Gargera, Gladiolus, Gypsophila, Liatris, Nerine, Orchids, Archilea, Anthurium, Tulip, and Lilies.

- Floriculture crops like **Gerberas, Carnation, etc. are grown in greenhouses**. The **open field crops** are Chrysanthemum, Roses, Gaillardia, Lily Marigold, Aster, Tuberose, etc.

- **Greenhouses are inflated structures** covered with transparent material, where crops are grown under controlled environmental conditions.

- **Leading Floriculture Regions:** Karnataka, Tamil Nadu, Madhya Pradesh, West Bengal, Chhattisgarh, Andhra Pradesh, Gujarat, Uttar Pradesh, Assam and Maharashtra have emerged as major floriculture centres.

What are the Key Challenges in India's Floriculture Industry?

- **Low Knowledge Base:** Floriculture being a relatively new concept, scientific and commercial floriculture is not well-understood, leading to **inefficiencies in production and marketing**.
- **Small Land Holdings:** Most floriculture farmers have **small land holdings**, limiting their ability to invest in large-scale, modern cultivation practices.
- **Unorganised Marketing:** The marketing system is fragmented and lacks organised platforms like **auction yards and controlled condition storage facilities**, making it difficult for farmers to get fair prices.
 - Although India has a large domestic market, it lacks modernised marketing systems to handle surplus production and meet increasing quality demands.
- **Inadequate Infrastructure:** Poor post-harvest management and lack of cold storage lead to quality degradation, especially in flowers grown for domestic markets.
- **Biotic and Abiotic Stresses:** Flower production in open fields exposes crops to various stresses, making the produce **less suitable for high-quality export markets**.
- **High Initial Costs:** Commercial floriculture requires heavy investments in infrastructure, and **farmers struggle to access affordable finance options**. More schemes like the **soft loan initiative by the National Horticulture Board** are needed.
- **Export Barriers:** **High air freight rates, low cargo capacity**, reduce the global competitiveness of Indian floriculture products.

Note:



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What are India's Initiatives for Floriculture?

- **APEDA (Agricultural and Processed Food Products Export Development Authority):** Supports floriculture exporters with cold storage, freight subsidies, and infrastructure development.
- **Council of Scientific & Industrial Research (CSIR) Floriculture Mission:** It is a nation-wide mission being implemented in 22 states with an aim to enhance the income of farmers and develop **entrepreneurship through high value floriculture** utilising **CSIR technologies**.
- **FDI in Floriculture:** 100% **foreign direct investment (FDI)** under the automatic route is allowed in the Floriculture sector making the investment process much easier for the foreign investor.
- **Integrated Development of Commercial Floriculture Scheme:** Provides access to quality planting material, promotes off-season cultivation, and enhances post-harvest management.

Rationalisation of Agriculture Schemes and Oilseeds Mission

Why in News?

Recently, the Union cabinet rationalised **18 centrally sponsored schemes** and approved the **National Mission on Edible Oils–Oilseeds (NMEO-Oilseeds)**.

What are the Key Facts Regarding Rationalisation of Schemes?

- **Categorisation of Schemes:** All **Centrally Sponsored Schemes (CSS)** under the Ministry of Agriculture and Farmers' Welfare into **two umbrella schemes** namely the **Pradhan Mantri Rashtriya Krishi Vikas Yojana (PM-RKVY)** and the **Krishonnati Yojana (KY)**.
- **Key Features of the Schemes:**
 - **PM-RKVY:** This scheme aims to promote **sustainable agriculture practices** across the country.
 - It encompasses various initiatives, including **soil health management**, rainfed area development, **agroforestry**, **crop diversification** among others.
 - **The PM-RKVY comprises the following schemes:** Soil Health Management, Rainfed Area Development, Agro-Forestry, Paramparagat

Krishi Vikas Yojana, Agricultural Mechanization including Crop Residue Management, Per Drop More Crop, Crop Diversification Programme, RKVY DPR component, Accelerator Fund for Agri Startups.

- **Krishonnati Yojana (KY):** It will address **food security** and agricultural self-sufficiency.
- **Comprehensive Strategic Document:** The States are given an opportunity to prepare a **Comprehensive Strategic Document** for their agriculture sector.
 - It focuses on improving **crop production and productivity** while addressing **climate resilient agriculture** and developing **value chains** for agricultural products.
- **Objective of Rationalisation:**
 - **Efficiency and Integration:** Avoid duplication of efforts and ensure **convergence** for a more integrated approach to agricultural initiatives.
 - **Emerging Agricultural Challenges:** Focus on emergent challenges of agriculture like **nutrition security**, **sustainability**, **climate resilience**, value chain development and private sector participation.
 - **State-Specific Strategic Planning:** States will have the freedom to draft **strategic plans** tailored to their **specific agricultural needs**.
 - **Streamlined Approval Process:** **Annual Action Plan (AAP)** of States can be approved in one go rather than approving individual scheme-wise AAPs.

What are the Key Facts Regarding NMEO-Oilseeds?

- **About NMEO-Oilseeds:** It has been launched by the **Ministry of Agriculture & Farmers Welfare** for enhancing domestic **oilseed production** to reduce dependency on edible oil imports.
 - It aligns with the broader goal of **Atmanirbhar Bharat** (self-reliant India) and focuses on boosting both **primary and secondary oilseed production** in the country.
- **Duration:** The mission will be implemented over a **seven-year period**, from 2024-25 to 2030-31.
- **Objective:** Together with **NMEO-OP (Oil Palm)**, the mission targets to increase **domestic edible oil production** to **25.45 million tonnes by 2030-31**, meeting around **72%** of India's projected **domestic requirement**.

Note:



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- It seeks to **expand oilseed cultivation** by an additional **40 lakh hectares** by targeting **rice and potato fallow lands**, promoting **intercropping**, and promoting **crop diversification**.
- NMEO-OP (Oil Palm) aims to increase crude palm oil production by **11.20 lakh tonnes by 2025-26**.
- **Key Focus Areas:**
 - **Production of Primary Oilseed Crops:** It focuses on enhancing the production of key **primary oilseed crops** such as **rapeseed-mustard, groundnut, soybean, sunflower, and sesamum**.
 - It aims to raise primary oilseed production from 39 million tonnes in 2022-23 to **69.7 million tonnes by 2030-31**.
 - **Extraction from Secondary Sources:** It aims at increasing **collection and extraction** efficiency from secondary sources like **Cottonseed, Rice Bran, and Tree Borne Oils**.
 - **Technological Interventions:** Cutting-edge technologies, such as **genome editing**, will be leveraged to develop **high-quality seeds** and enhance productivity.
- **SATHI Portal for Seed Management:** A **5-year rolling seed plan** will be introduced via the **Seed Authentication, Traceability & Holistic Inventory (SATHI)** Portal.
 - This will help states establish **tie-ups with seed-producing agencies** (FPOs, cooperatives, and seed corporations).
 - **65 new seed hubs and 50 seed storage units** will be set up in the public sector to improve the seed production infrastructure.
- **Value Chain Clusters:** Over **600 Value Chain Clusters** will be developed across **347 districts**, covering more than **10 lakh hectares annually**.
 - Farmers in these clusters will have access to **high-quality seeds, Good Agricultural Practices (GAP)** training, and advisory services on weather and pest management.
 - Value Chain Clusters are networks of **interconnected businesses, suppliers, and institutions** within a specific industry that collaborate to improve **productivity, innovation, and competitiveness**.
- **Post-Harvest Support:** Support will be extended to **FPOs, cooperatives, and industry players** to establish

or upgrade **post-harvest units** to enhance recovery from **cottonseed, rice bran, corn oil, and Tree-Borne Oils (TBOs)**.

What are Key Highlights of India's Oilseed Production?

- **Oilseed Production:** India ranks as the **fourth largest oilseed producer** in the world. India has **20.8% of the global area** under oilseed cultivation, contributing **10% of global production**.
 - In **2022-23**, production reached a record **413.55 lakh tonnes, 33.92 lakh tonnes** higher than the previous year.
 - India produces a variety of oilseeds including **Groundnut, Soybean, Sunflower, Sesamum, Niger Seed, Mustard, and Safflower**.
- **Rainfed Farming:** Nearly **72% of India's oilseed cultivation** is limited to **rainfed farming**, predominantly carried out by **small farmers**, leading to **low productivity**.
- **Major Oilseed-Producing States:** **Rajasthan, Madhya Pradesh, Gujarat, and Maharashtra** were the leading producers in 2021-22, contributing **23%, 21%, 18%, and 16%**, respectively.
- **Oilseed Export:** In 2022-23, the oilseed exports amounted to USD 1.33 billion.
 - Major export destinations include **Indonesia, Vietnam, Philippines, Malaysia, Thailand, UAE and Bangladesh**.
- **Oilseed Imports:** India is heavily reliant on imports of oilseed which account for **57% of its domestic demand** for edible oils.

What are Previous Measures to Promote Oilseed Production?

- **National Mission on Edible Oils-Oil Palm (NMEO-OP):** **NMEO-OP** was launched in **2021** to increase the area of oil palm to **10 lakh hectares by 2025-26** with a special focus on **North Eastern states**.
 - It aims to increase crude palm oil production to **11.20 lakh tonnes by 2025-26**.
 - Increase consumer awareness to maintain **consumption level of 19 kg/person/annum till 2025-26**.
- **MSP for Oilseeds:** The **Minimum Support Price (MSP)** for mandated edible oilseeds has been increased, and schemes like **Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA)** ensure that oilseed farmers receive fair prices.

Note:

- **Import Duty Protection:** 20% import duty on edible oils has been imposed to protect domestic producers from cheap imports and encourage local cultivation.

Functionality and Essentially Test for ITC

Why in News?

Recently, the **Supreme Court** laid down **functionality and essentially test** for **Input Tax Credit (ITC)** eligibility under the **Goods and Services Tax (GST)** regime.

- The verdict was delivered in the **Chief Commissioner of Central Goods and Service Tax & Ors. Vs Safari Retreats Case, 2024**.

What are the Key Highlights of the Supreme Court Ruling on ITC?

- **ITC for Real Estate Sector:** The Supreme Court (SC) ruled that the **real estate sector can claim ITC** on construction costs for commercial buildings used for **renting or leasing** purposes under the functionality and essentially test.
 - Earlier ITC was not allowed on such **immovable property** construction.
- **Clarification on 'Plant and Machinery' Category:** The court clarified that if the construction of a building is **essential** for providing services like leasing or renting, the building may fall under the **category of 'plant and machinery'**.
 - This is based on **Section 17(5)(d)** of the **Central Goods and Services Tax (CGST) Act, 2017** which permits ITC claims on plant and machinery used in the business of supplying services.
 - The court read down the scope of **Sections 17(5)(c) and (d) of the CGST Act, 2017** which **prohibit ITC claims** for construction materials used for immovable property, except for plant or machinery.
- **Case-Specific Determination:** The SC emphasised that determining whether a building like a mall or warehouse qualifies as 'plant' under **Section 17(5)(d)** should be assessed on a **case-by-case basis**.
 - The business nature and the role of the building in the registered person's business are key factors in this determination.

What are Functionality and Essentially Tests?

- **Functionality Test:** It will **evaluate** whether the **building plays a role in the supply of services**, akin to the function of plant and machinery in a factory.
- **Essentially Test:** The SC held that procurement of goods or services must be **directly essential** to business operations.
 - It means that only those goods and services that are **directly needed** for constructing or developing property can be claimed for tax benefits or input tax credit (ITC). E.g., **cement, steel etc.**

What is Goods and Services Tax?

- **About GST:** GST is a **value-added tax system** (ad valorem tax) that is levied on the **supply of goods and services** in India.
 - It is a comprehensive **indirect tax** implemented in India on **1st July 2017**, via the **101st Constitution Amendment Act, 2016**, with the vision of '**One Nation, One Tax.**'
- **Tax Slabs:** The primary GST slabs for regular taxpayers are currently **0% (nil-rated), 5%, 12%, 18%, and 28%**.
- **GST Council:** The GST Council is a **constitutional body** that recommends matters concerning **GST implementation** in India. According to **Article 279A(1)** of the Constitution, the President established the **GST Council**.

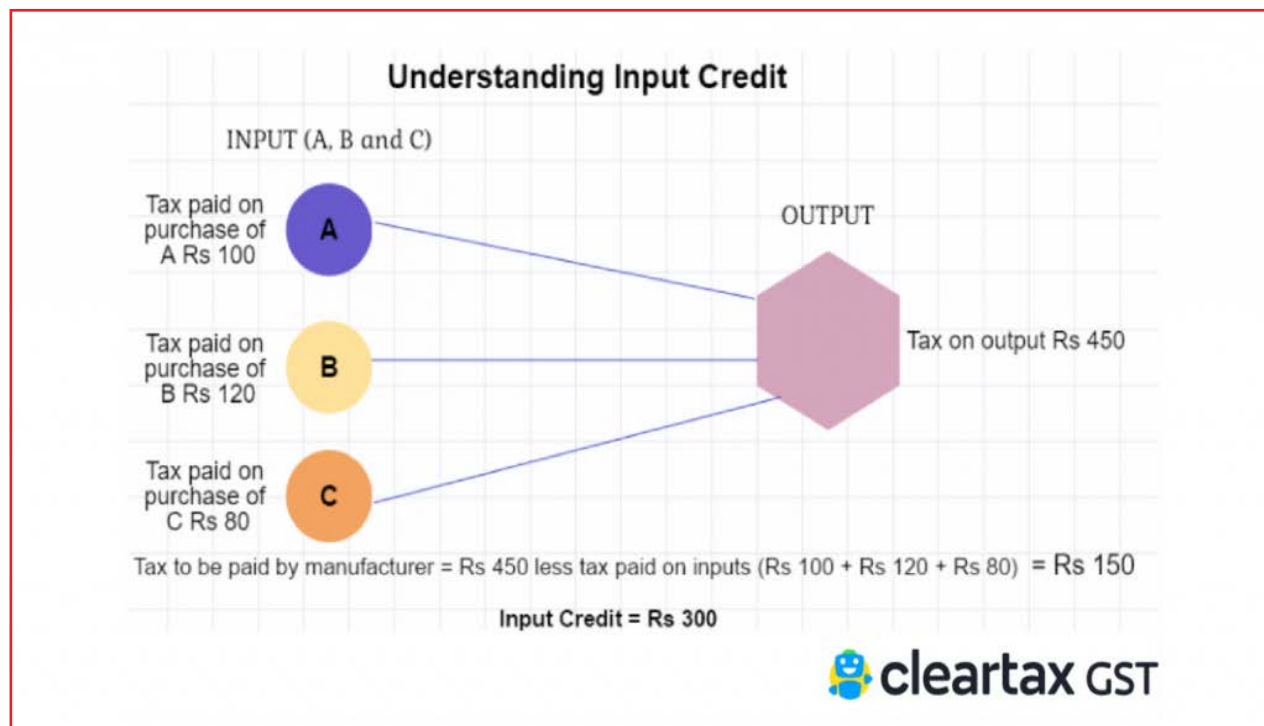
What is Input Tax Credit Under GST?

- **About ITC:** ITC is one of the **foundational elements** of the GST system that allows businesses to **claim credit for taxes paid** on inputs used in their business.
 - It implies at the time of paying tax on output, one can **reduce the tax he has already paid** on inputs and pay the **balance amount**.
 - It enables an uninterrupted and **seamless credit flow** across the supply chain.
 - It **eliminates the cascading effect of taxes** by imposing **tax** only on the **value addition** to the input.
- **ITC Working Mechanism:** When someone buys a product/service, he pays taxes on the purchase and on selling, he collects the tax.
 - He **adjusts** the taxes paid at the time of purchase with the amount of **output tax (tax on sales)** and balance liability of tax (tax on sales minus tax on purchase) has to be paid to the government.

Note:



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- **Avoiding Cascading of Taxes using ITC:** Cascading of taxes occurs when a tax is levied on a product, and **subsequent taxes are imposed on the taxed value** of that product, thus leading to multiple layers of taxation.
 - In the pre-GST tax system, taxes levied by the Central Government (like **central excise duty**) could **not be used to offset** taxes levied by the State Governments (like **VAT**). VAT was levied not just on the value of the product but also on the tax (excise duty) included in the price.
 - Since GST **subsumes** most central and state indirect taxes into a **single levy**, the tax paid at one stage can be used to **offset the tax payable** at subsequent stages. This ensures that tax is only paid on the value added at each stage, not on the entire cost, including previous taxes.
- **Impact of ITC:** The introduction of ITC under GST has led to **greater transparency and efficiency** in the supply chain.
 - Since the tax paid at each stage can be claimed as a credit, businesses are incentivised to ensure **proper documentation and compliance**.
 - The ITC mechanism **reduces the overall tax burden** on businesses, making goods and services more competitively priced in the market.

What is Reversal of Input Tax Credit?

- **About Reversal of ITC:** Reversal of ITC means that the **input tax credit** one had claimed earlier is **cancelled**, and the amount is added to his **tax liability**.
- Conditions for ITC Reversal:
 - **Non-payment Of invoices within 180 days:** ITC will be reversed for invoices that remain **unpaid beyond 180 days** from the date of issue.
 - **Credit note issued to ISD by seller:** If a seller issues a **credit note** to the **Input Service Distributor (ISD)**, it means that the amount of input tax credit (ITC) previously claimed will be reduced.
 - **Partially used business inputs:** In cases where inputs are used for **both business and non-business (personal) purposes**, the portion of ITC used for personal purposes must be reversed proportionately.

India's Balance of Payments (BOP)

Why in News?

According to recent **RBI** data, India's **Current Account Deficit (CAD)** widened marginally to **USD 9.7 billion (1.1%**

Note:

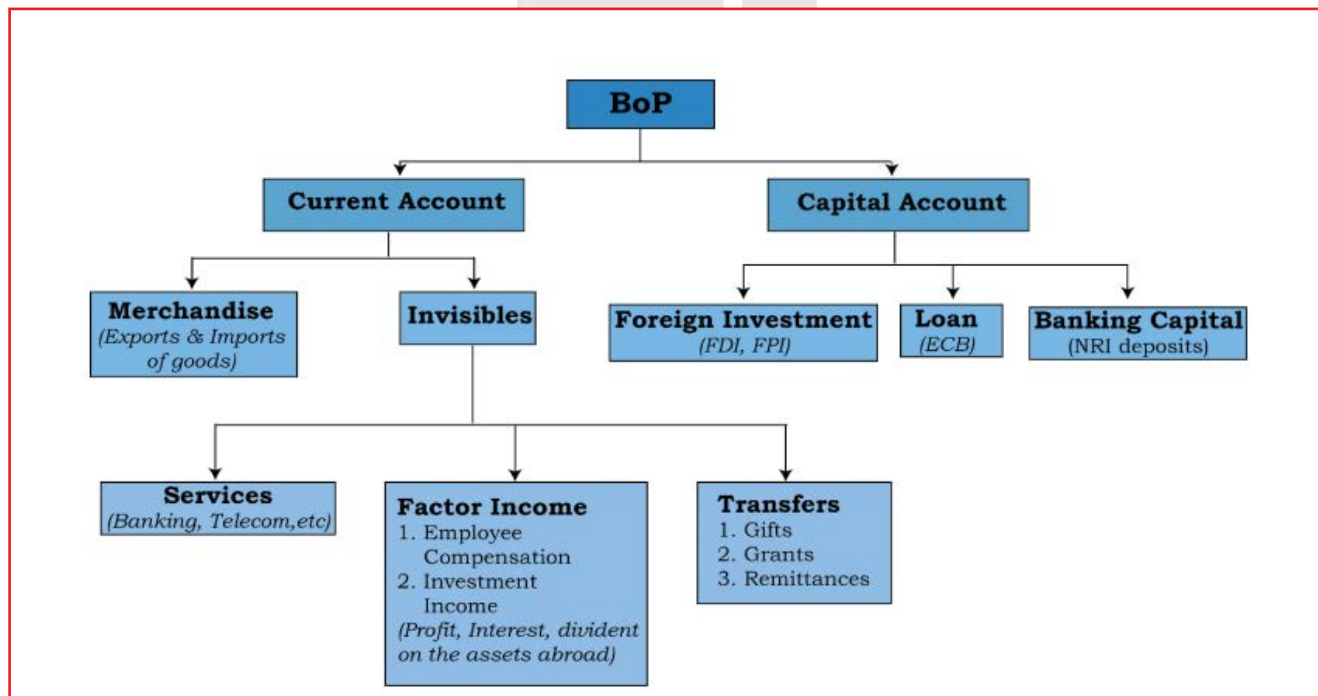
of GDP) in Q1 of 2025 reflecting the status of India's Balance of Payments.

- CAD occurs when the total value of goods and services a country **imports exceeds** the total value of goods and services it **exports**.

What is Balance of Payments?

- **About:** The **balance of payments (BOP)** is the record of **all international transactions** made by the residents of a country.
 - It measures the **relative demand for the rupee** against foreign currencies, crucially influencing exchange rates and economic stability.
- **Constituents of BoP:** The **Current Account** and **Capital Account** are the two main constituents of BoP.
 - **Current Account:** It includes those transactions that do not change the assets or liabilities position of a country.

- **Merchandise:** It includes trade in **physical imports and exports**, indicating the balance of trade. A deficit suggests **higher imports than exports**.
- **Invisibles:** It includes **services** (e.g., banking, insurance IT, tourism, transport, etc.), **transfers** (e.g., gifts, grants, remittances etc), and **factor incomes** (such as the income earned from investments).
- **Capital Account:** It reflects the net change in a nation's assets and liabilities over a specific period.
 - **Assets:** It reflects investments such as **Foreign Direct Investment** and **Foreign Institutional Investor (FII)**, essential for economic growth and stability.
 - **Liabilities:** It also reflects factors such as **commercial borrowings, loans, and capital**.



India's Efforts to Reduce Current Account Deficit

- **Encourage Exports:** The **Foreign Trade Policy (FTP) 2023** aims to boost India's exports to **USD 2 trillion by 2030**. It can counterbalance imports and **reduce CAD**.
- **Promote Import Substitution:** **Atmanirbhar Bharat Abhiyaan** is vigorously pursued and provides incentives to domestic manufacturers for the domestic production of goods. E.g., **Production Linked Incentive Scheme**.
- **Increase Productivity:** Enhancing productivity and competitiveness in the domestic economy can **boost exports** and help reduce the trade deficit. E.g., **'future friendly' skills building, Innovation etc.**

Note:

International Day of Awareness of Food Loss and Waste

Why in News?

Recently, on 29th September, the world observed the **International Day of Awareness of Food Loss and Waste (IDAFW)**, highlighting its implications for **food security** and **environmental sustainability**.

- A 2023 report by the **Food and Agriculture Organization (FAO)** reveals that about **30% of global food production is lost or wasted**, which could feed the hungry. This urgent issue demands immediate action, especially in India, where **post-harvest** losses are significantly high.

Key Terms

- **Food Loss:** It refers to a decrease in **mass (dry matter) or nutritional value (quality)** of food intended for human consumption.
 - This occurs primarily due to **inefficiencies in food supply chains**, including poor infrastructure, inadequate logistics, lack of technology, and insufficient skills and management. Additionally, **natural disasters** contribute to these losses.
- **Food Waste:** It refers to food suitable for human consumption that is **discarded**, whether due to **spoilage or exceeding its expiry date**.
 - This waste can result from factors such as **market oversupply or individual consumer shopping and eating habits**.
- **Food Wastage:** It refers to any food lost by **deterioration or waste**. Thus, the term "wastage" encompasses both food loss and food waste.

What is the International Day of Awareness of Food Loss and Waste?

- The IDAFW, designated by the **United Nations General Assembly (UNGA)** in 2019, focuses on the critical issue of **food loss and waste (FLW)**, it aims to raise awareness and mobilise efforts to reduce FLW, highlighting the need for financial support to achieve **climate goals** and the **2030 Agenda for Sustainable Development**.
- The initiative aligns with **SDG Target 12.3**, which aims to halve global food waste and reduce food losses by 2030, and is linked to the **Kunming Montreal Global Biodiversity Framework**.

- Reducing FLW is a climate solution that requires increased **climate finance**.

What are the Implications of Food Loss and Waste (FLW)?

- **Impact on Food Security:** According to a study published in *Nature*, approximately **29% of the global population experiences moderate to severe food insecurity** while one-third of food produced (1.3 billion tonnes) is lost or wasted.
 - FLW contributes to a significant **decrease in the availability of food for consumption**, exacerbating hunger and **malnutrition**, especially in vulnerable populations.
- **Environmental Consequences:** Enormous resources **land, water, energy, and labour** are wasted alongside food, contributing to the depletion of natural resources.
 - **Carbon Footprint:** Food wastage generates **3.3 billion tons of CO₂ equivalents** annually, contributing heavily to **global greenhouse gas (GHG) emissions**.
 - **Water Usage:** The amount of water wasted on uneaten food is equivalent to the **annual flow of Russia's Volga River or three times the volume of Lake Geneva**.
 - **Land Usage:** Nearly **1.4 billion hectares of land** are used to produce food that is ultimately wasted, roughly 28% of the world's agricultural land.
 - **Energy Waste:** About **38% of total global food system energy** is consumed in producing food that is lost or wasted.
 - **Methane Emissions:** Food waste in landfills produces **methane**, a greenhouse gas far more potent than CO₂, thus accelerating **climate change**.
 - **Climate Goals:** The agricultural sector's inefficiencies make it difficult to meet **global climate targets**, as emissions from food systems account for up to **37% of all GHG**.
- **Economic Impacts:** The economic costs associated with FLW are significant, leading to lost income for producers and higher prices for consumers.
 - Food prices often fail to reflect the **true social and environmental costs of food production**, resulting in market inefficiencies and reinforcing inequalities.

Note:

How Significant are FLW in India?

- **Post-Harvest Losses:** According to the **National Bank for Agriculture and Rural Development Consultancy Services (NABCONS)** survey conducted in 2022, India incurs food losses worth Rs 1.53 lakh crore (USD 18.5 billion).
 - Major losses include 12.5 million metric tonnes of **cereals**, 2.11 million metric tonnes of **oilseeds**, and 1.37 million metric tonnes of pulses.
 - Around 49.9 million metric tonnes of horticultural crops are lost annually due to inadequate cold chain infrastructure.
 - **Key Causes of Post-Harvest Losses:** A survey by **Indian Council for Research on International Economic Relations (ICRIER)** found that food loss largely occurs during **harvesting, threshing, drying, and storage** due to low levels of mechanisation.
 - Poor storage facilities contribute to roughly **10% of total food grain losses in India**, according to the **Indian Grain Storage Management and Research Institute (IGSMRI)**.
- **National Food Loss:** The **United Nations Environment Programme (UNEP)** estimates that **India wastes 74 million tonnes of food each year**, representing a loss of 92,000 crore rupees.
 - **Food waste in restaurants** stems from overproduction, large portion sizes, and the complexity of offering a wide variety of dishes, leading to spoilage.
 - Additionally, customers often **over-order, leaving food uneaten or discarded**. A lack of awareness among staff and patrons about the economic, social, and environmental impacts further exacerbates the problem.
 - According to the **UNEP Food Waste Index Report 2021**, Indian households generate **50 kg of food waste per capita per year**, resulting in a total of 68,760,163 tonnes annually.

Why is Reducing FLW Crucial for India's Future?

- **Climate Change:** Reducing food wastage could significantly lower GHG emissions, addressing a key contributor to **climate change**.
 - Reducing FLW can cut emissions by as much as 12.5 gigatons of CO₂ equivalent (Gt CO₂e), which is equivalent to removing emissions from 2.7 billion cars from the road.

- By minimising FLW, the strain on natural resources like water and land, can be significantly reduced to ensure that more food reaches those in need.
- **Food Security:** Globally, Between 691 and 783 million people faced hunger in 2022. As per the **Food and Agriculture Organization (FAO)**, over 74% of India's population is unable to afford a healthy diet.
 - With millions of people in India still **malnourished**, cutting food loss could help ensure that **more food reaches those in need**, particularly in times of crisis.
- **Economic Efficiency:** By improving post-harvest processes, India can enhance farm productivity, reduce waste, and **boost farmer incomes**, fostering a more resilient agricultural economy.

What are India's Initiatives to Combat Food Loss and Waste?

- **Pradhan Mantri Kisan Sampada Yojana:** It is a central sector umbrella scheme by the Ministry of Food Processing Industries (MoFPI) aimed at reducing food loss and waste through the development of robust **food processing and preservation infrastructure across India**.
 - **Key Components:**
 - **Cold Chain, Value Addition & Preservation Infrastructure:** Establishes **integrated cold chain, preservation infrastructure and value addition Infrastructure** to minimise post-harvest losses.
 - **Mega Food Parks:** Aims to streamline food processing and distribution (was discontinued by the Government of India in April 2021).
 - **Agro Processing Clusters:** Promotes localised food processing units to reduce food wastage and enhance local supply chains.
 - **Operation Greens:** Provides credit linked financial aid in the form of grants-in-aid / subsidy is provided for establishing food processing projects leading to creation of food processing and preservation infrastructure facilities.
- **Save Food, Share Food, Share Joy (IFSA):** This initiative, led by the **Food Safety and Standards Authority of India (FSSAI)**, brings together various stakeholders to prevent food loss and waste throughout the supply chain. It also facilitates the safe distribution of surplus food.

Note:



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International Models Addressing Food Waste

- **Incentives for Businesses:** In the US, the **Protecting Americans from Tax Hikes (PATH) Act of 2015** introduced enhanced tax deductions for food donations, encouraging businesses to donate excess food.
- **Italy's Incentive Model:** Italy has allocated approximately USD 10 million annually to reduce one million tonnes of food waste by offering businesses incentives to donate food to charities.
- **UN Global Food Loss and Waste Protocol:** It is a global standard for the measurement of food loss and waste. It was proposed as an **indicator for the SDG target 12.3**, regarding processing, retail, consumers.
 - It can be used by both countries and companies to measure FLW within their borders and supply chains.

What Actions are Needed to Address FLW?

- **Promote Mechanisation:** Farmers using mechanised equipment like combine harvesters report significantly lower losses in paddy production. However, only a small percentage of Indian cultivators own such machinery.
 - Expanding mechanisation through **Farmer Producer Organisations (FPOs)** and **Custom Hiring Centres (CHCs)** can make technology more accessible to small and marginal farmers, reducing on-field losses.
- **Improve Storage and Packaging Solutions:** Traditional storage methods, including **sun drying and jute packaging**, are prone to **contamination, quality degradation**, and spoilage due to rodent attacks or pilferage.
 - Implementing **solar dryers**, **airtight packaging**, and upgrading India's grain storage capacity by **70 million metric tons (MMT) over five years**, as planned by the government, could significantly **curb post-harvest losses**.
- **Waste Management Protocols and Recycling:** Adopting the **UN Global Food Loss and Waste Protocol** could enable India to quantify food loss across the value chain and develop targeted solutions.
 - **Recycling** food waste into **compost, biogas, or energy** provides a sustainable way to manage excess production and post-harvest waste.

- **Redistribute Surplus Food:** Surplus food can be redistributed to those in need, reducing hunger and food insecurity. Alternatively, surplus food can be converted into animal feed or organic manure, offering an effective **recycling solution**.
- **Consumer Responsibility:** Consumers play a vital role in reducing food waste by **purchasing only what is necessary**.
 - Changing consumer behaviour through awareness campaigns can drive responsible consumption patterns.
- **Adopt Innovative Technologies:** Innovations such as **mobile food processing systems**, better logistics, and **e-commerce** platforms can help bridge the gap between food production and consumption, reducing inefficiencies in storage, transportation, and distribution.
- **Food Collection from Social Events:** Social events often lead to significant food wastage. **City-based organisations** are already collecting surplus food from events and distributing it to slum areas, addressing both food waste and hunger.
- **Align Food Production with Demand:** To minimise resource wastage, **aligning food production with actual demand** can optimise the use of water, energy, and land, ensuring that excess resources are not expended on food that will eventually go to waste.

Annual Survey of Industries Report 2022-23

Why in News?

Recently, the **Ministry of Statistics and Programme Implementation (MoSPI)** released the **Annual Survey of Industries (ASI)** for **2022-23** which presents significant insights into the **recovery and growth of the manufacturing sector** in India.

- The survey fieldwork was conducted from **November 2023 to June 2024** for ASI 2022-23.

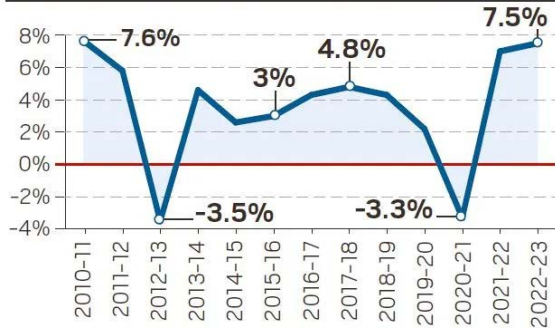
What are the Key Highlights of the ASI Report 2022-23?

- **Employment Growth in Manufacturing:**
 - The ASI indicates that **employment** in manufacturing **grew by 7.5%** from 1.72 crore in 2021-22 to **1.84 crore in 2022-23**, the **highest rate of growth in the last 12 years**.

Note:

- In 2022-23, the manufacturing sector created 13 lakh jobs, an increase from 11 lakh in FY22.

EMPLOYMENT GROWTH IN MANUFACTURING



➤ Gross Value Added (GVA) and Output Growth:

- The manufacturing **GVA** grew robustly by **7.3%**, reaching Rs 21.97 lakh crore in 2022-23, up from Rs 20.47 lakh crore in 2021-22.
- The **total industrial input** increased by **24.4%**, while the **output** grew by **21.5%** in the sector in 2022-23 compared to 2021-22, reflecting a significant rebound in manufacturing activities.

INDUSTRY PERFORMANCE

	Persons engaged (in mn)	Additional jobs created (in mn)	Sector GVA (₹ trn)
FY20	16.6	0.344	14.85
FY21	16.08	-0.534	16.17
FY22	17.2	1.1	20.47
FY23	18.49	1.3	21.97

Note: *Total emoluments is defined as the sum of wages and salaries including bonus; output and GVA in current prices
Source: MoSPI

➤ Main Drivers of Manufacturing Growth:

- The primary drivers of manufacturing growth in **2022-23** were **basic metals, coke and refined petroleum products, food products, chemicals, and motor vehicles**.
 - Together, these industries accounted for about **58% of total output**.

➤ Regional Performance:

- Top 5 states in terms of employment were Tamil Nadu, Maharashtra, Gujarat, Uttar Pradesh, and Karnataka.

➤ Increase in Number of Factories:

- The number of factories increased from **2.49 lakh** in 2021-22 to **2.53 lakh** in **2022-23**, marking the first full recovery phase after **Covid-19** disruptions.

➤ Informal Sector Decline:

- The informal sector saw a **1.5%** decline in employment, dropping by 16.45 lakh to **10.96 crore** in **2022-23**, indicating a shift towards formal employment in manufacturing as per the **Annual Survey of Unincorporated Enterprises (ASUSE) 2022-23 report** released in July 2024.

➤ Average Salaries:

- Average emolument per person **rose by 6.3%**, reaching Rs 3.46 lakh in 2022-23 compared to 2021-22.

➤ Capital Investment Surge:

- **Gross fixed capital formation (GFCF)** surged by **over 77%** to Rs 5.85 lakh crore in **2022-23**, while **net fixed capital formation** saw **781.6% rise** to Rs 2.68 lakh crore, supporting sustained manufacturing growth.
- **Gross fixed capital formation (GFCF)**, or "investment," refers to the acquisition of produced assets, including second-hand purchases, as well as the production of assets by producers for their own use, minus disposals.
- **Net fixed capital formation** is the amount of **Gross fixed capital formation (GFCF)** minus the amount of consumption of fixed capital.
- **Profits in the manufacturing sector** increased by **2.7%** to Rs 9.76 lakh crore.

Note:

- Workers encompass **all individuals employed directly or through an agency**, including **paid and unpaid workers** involved in manufacturing processes or cleaning machinery and premises.
- Employees include **all workers receiving wages**, as well as those in clerical, supervisory, or managerial roles, and those involved in purchasing raw materials or fixed assets, along with watch and ward staff.

Note:



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Gross Value Added (GVA)

- GVA represents the **value that producers add to goods and services** throughout the production process.
- It's calculated by **subtracting the cost of inputs (intermediate consumption) from total output**.
- It's a key component of **Gross Domestic Product (GDP)**, reflecting economic growth. GVA growth rates provide insights into sectoral performance, aiding economic analysis and policymaking.
 - $GVA = GDP + \text{subsidies on products} - \text{taxes on products}$.
- **Net Value Added (NVA)** is obtained by deducting depreciation from Gross Value Added (GVA).
 - It represents the value of output after subtracting both intermediate consumption and the consumption of fixed capital.

What is the Annual Survey of Industries (ASI)?

- **About:**
 - The **Annual Survey of Industries (ASI)** is the primary **source of industrial statistics** in India.
 - It **began in 1960**, using **1959 as the base year**, and has been **conducted annually** since then, with the **exception of 1972**, in accordance with the **Collection of Statistics Act of 1953**.
 - Since ASI 2010-11, the survey has been conducted under the **Collection of Statistics Act, 2008**, which was **amended in 2017** to **extend its coverage to All India**.
- **Implementing Agency:**
 - The **National Statistical Office (NSO)**, a part of the **Ministry of Statistics and Programme Implementation (MoSPI)**, conducts the ASI.
 - The MoSPI is responsible for ensuring the coverage and quality of the released statistics.
- **Scope and Coverage of ASI:**
 - The ASI extends to the **entire country**. It covers **all factories** registered under **Sections 2(m)(i) and 2(m)(ii)** of the **Factories Act, 1948**.
 - **Bidi and cigar manufacturing establishments**, registered under the Beedi and Cigar Workers (Conditions of Employment) Act, 1966.
 - **Electricity undertakings** engaged in the generation, transmission, and distribution of electricity, are **not registered** with the **Central Electricity Authority (CEA)**.

- Units with **100 or more employees** registered in the **Business Register of Establishments (BRE)** maintained by State Governments, as shared by the respective states.

➤ **Data Collection Mechanism:**

- Data for the ASI are collected from selected factories in accordance with the **Collection of Statistics Act, 2008**, as amended in 2017, and the rules established under it in 2011.

What are the Opportunities and Challenges to the Manufacturing Sector in India?➤ **Opportunities:**

- **Broad Domestic Market and Demand:** The Indian manufacturing sector has witnessed **robust demand for its products** from both domestic and international clients.
 - The **Purchasing Managers' Index (PMI)** recorded at 58.8 in May 2024 indicates expansion within India's manufacturing landscape.
- **Sectoral Advantage:** Key manufacturing sectors, including **chemicals, pharmaceuticals, automotive, electronics, industrial machinery, and textiles**, have shown significant growth in recent years.
 - **Pharmaceutical manufacturing costs** in India are approximately **30%–35% lower** than those in the US and Europe.
- **Outreach to the Global South Market:** Indian manufacturing is shifting from European to Asian **Global Value Chains (GVC)**, with foreign value-added (FVA) from Global Southern partners increasing from **27% to 45%** in 2005-2015.
 - This offers Indian firms a chance to establish their own GVCs and position India as a regional growth hub.
- **Rise of MSMEs:** **Micro, Small, and Medium Enterprises (MSMEs)** contribute around **30% to India's GDP** and play a vital role in driving economic growth, accounting for nearly **45%** of the country's total exports.
 - As of March 2024, **over 4 crores MSMEs** were registered on the Udyam portal, with **67%** identified as manufacturing MSMEs.
- **Potential for Growth:** The Indian manufacturing sector has the potential to reach USD 1 trillion by 2025 highlighting its critical role in the economy.

Note:



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➤ **Challenges:**

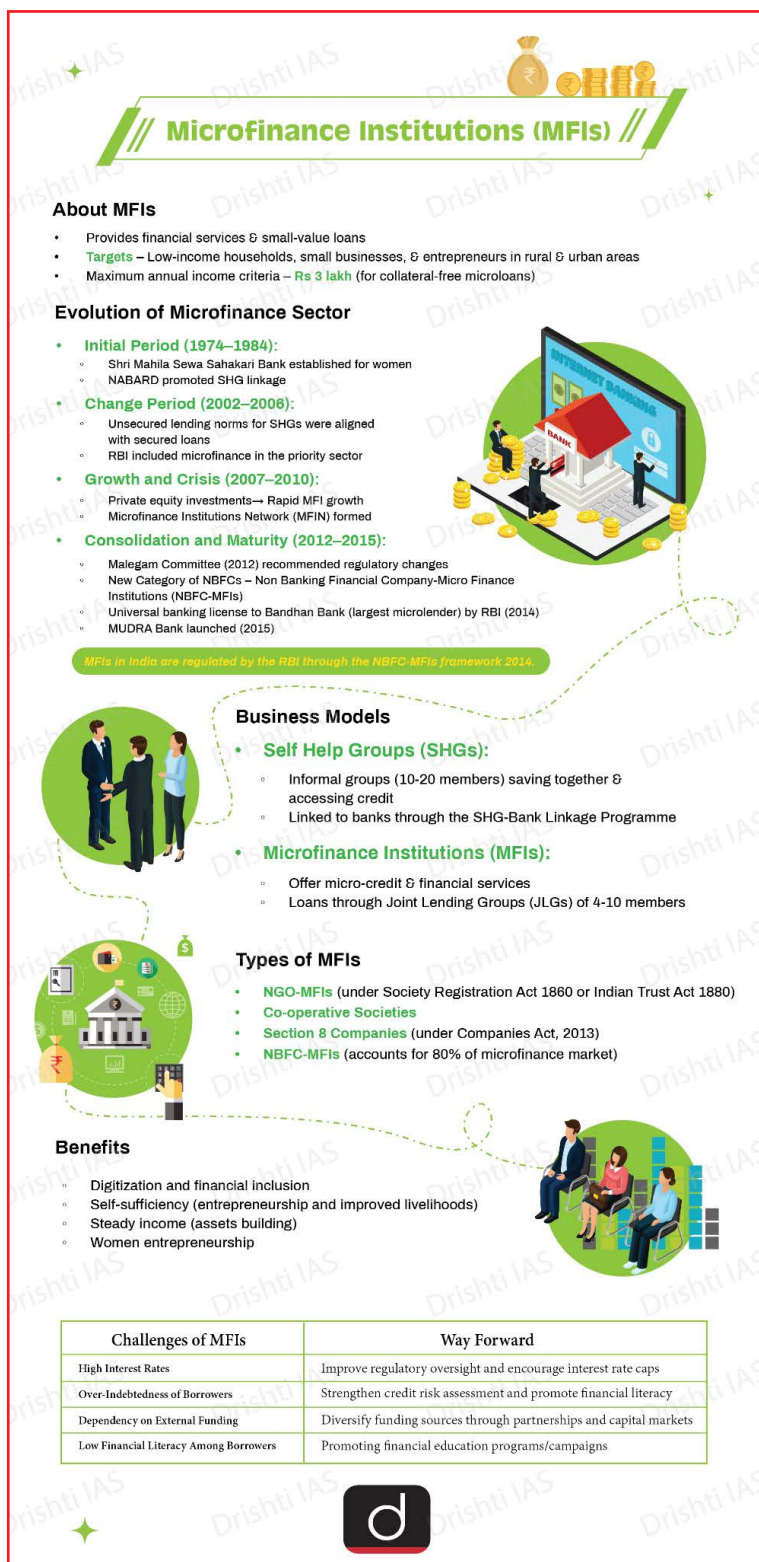
- **Outdated Technology and Infrastructure:** Reliance on outdated technology and insufficient infrastructure hampers Indian manufacturers' ability to compete globally and meet international quality standards.
- **Shortage of Skilled Workforce:** According to the **World Bank**, only **24%** of India's workforce possesses the skills needed for complex manufacturing jobs, compared to **52% in the US and 96% in South Korea**.
- **High Input Costs:** The **Reserve Bank of India** (2022) reported that **logistics costs in India are 14% higher** than the global average, affecting the overall competitiveness of the manufacturing sector.
 - Also the land acquisition process is complex in India.
- **Competition from China and Import Dependence:** In 2023-24, China accounted for nearly **42%** of India's textiles and clothing imports, **40%** of machinery, and **38.4%** of electronics imports.

What are the Government Initiatives in the Manufacturing Sector in India?

- **Production-Linked Incentive (PLI)**
- **PM Gati Shakti- National Master Plan**
- **Bharatmala and Sagarmala Project**
- **Start-up India**
- **Make in India 2.0**
- **Atmanirbhar Bharat Campaign**
- **Special Economic Zones**
- **Liberalised foreign direct investment (FDI)**
- **MSME Innovative Scheme**
- **Ease of Doing Business**
- **Goods and Services Tax (GST) and Reduction in Corporate tax**

Note:

Microfinance Institutions



Microfinance Institutions (MFIs)

About MFIs

- Provides financial services & small-value loans
- Targets** – Low-income households, small businesses, & entrepreneurs in rural & urban areas
- Maximum annual income criteria – **Rs 3 lakh** (for collateral-free microloans)

Evolution of Microfinance Sector

- Initial Period (1974–1984):**
 - Shri Mahila Sewa Sahakari Bank established for women
 - NABARD promoted SHG linkage
- Change Period (2002–2006):**
 - Unsecured lending norms for SHGs were aligned with secured loans
 - RBI included microfinance in the priority sector
- Growth and Crisis (2007–2010):**
 - Private equity investments → Rapid MFI growth
 - Microfinance Institutions Network (MFIN) formed
- Consolidation and Maturity (2012–2015):**
 - Malegam Committee (2012) recommended regulatory changes
 - New Category of NBFCs – Non Banking Financial Company-Micro Finance Institutions (NBFC-MFIs)
 - Universal banking license to Bandhan Bank (largest microlender) by RBI (2014)
 - MUDRA Bank launched (2015)

MFIs in India are regulated by the RBI through the NBFC-MFIs framework 2014.

Business Models

- Self Help Groups (SHGs):**
 - Informal groups (10-20 members) saving together & accessing credit
 - Linked to banks through the SHG-Bank Linkage Programme
- Microfinance Institutions (MFIs):**
 - Offer micro-credit & financial services
 - Loans through Joint Lending Groups (JLGs) of 4-10 members

Types of MFIs

- NGO-MFIs** (under Society Registration Act 1860 or Indian Trust Act 1880)
- Co-operative Societies**
- Section 8 Companies** (under Companies Act, 2013)
- NBFC-MFIs** (accounts for 80% of microfinance market)

Benefits

- Digitization and financial inclusion
- Self-sufficiency (entrepreneurship and improved livelihoods)
- Steady income (assets building)
- Women entrepreneurship

Challenges of MFIs	Way Forward
High Interest Rates	Improve regulatory oversight and encourage interest rate caps
Over-Indebtedness of Borrowers	Strengthen credit risk assessment and promote financial literacy
Dependency on External Funding	Diversify funding sources through partnerships and capital markets
Low Financial Literacy Among Borrowers	Promoting financial education programs/campaigns

Note:

International Relations

Highlights

- 19th East Asia Summit (EAS)
- 10 Point Plan for India-ASEAN Relations
- Civil War in Sudan
- Colombo Security Conclave Charter
- Maldives' President State Visit to India
- Israel-Hezbollah Conflict and War Theory
- Jamaican Prime Minister's Visit to India
- Strengthening Ties between India and Sri Lanka
- US-India Nuclear Cooperation and Small Modular Reactors
- India-France Strategic Dialogue
- Implications of the Israel-Iran Conflict

19th East Asia Summit (EAS)

Why in News?

Recently, the Prime Minister of India attended the 19th East Asia Summit (EAS) in Vientiane, Lao PDR.

What are the Key Highlights of the Visit?

- PM advocated for a development-oriented **Indo-Pacific** approach over expansionism.
- Reiterated support for **Nalanda University** and invited EAS members to the Heads of Higher Education Conclave.
- Addressed global challenges like terrorism, cyber, and maritime threats, and stressed dialogue-based conflict resolution.
- PM conveyed his wishes to **Malaysia on presiding as the new Chair of ASEAN** and expressed India's full support to it. **The present chair of ASEAN is Lao PDR.**

What is the East Asia Summit (EAS)?

- **Establishment:** The EAS was established in 2005 as an **Association of Southeast Asian Nations (ASEAN)**-led initiative.
 - The EAS is the **only leader-led forum in the Indo-Pacific** that brings together all key partners to discuss political, security and economic issues of strategic importance.
 - The idea of an East Asia Grouping was first proposed by then **Malaysian Prime Minister Mahathir Mohamad in 1991.**
 - The **first summit was held in Kuala Lumpur, Malaysia on 14th December 2005.**

- **Objectives:** The EAS operates on the principles of openness, inclusiveness, respect for international law, ASEAN centrality, and ASEAN's role as the driving force.
- **Members:** The EAS is a key forum for strategic dialogue in the Indo-Pacific region, involving **18 countries, including ASEAN members.**
 - The EAS comprises 18 members, the **10 ASEAN countries** (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam) and **eight dialogue partners** (Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States).
- **Importance:**
 - **Economically:** In 2023, EAS members represented approximately **53% of the world's population and accounted for approximately 60% of global GDP.**
 - **India is ASEAN's seventh-largest trading partner**, while ASEAN is India's fourth-largest partner. In the last ten years India-ASEAN trade had doubled to over USD 130 billion.
 - **Strategically:** Connectivity projects in Southeast Asian countries, both infrastructure and digital, are key to **India's Act East Policy**, with major initiatives like the **India-Myanmar-Thailand Highway and Kaladan Multi-Modal Transit Transport** boosting regional links and connectivity with East Asian Nations.
 - Besides, India also engages in capacity-building through the **Indian Technical and Economic Cooperation (ITEC) programme** with Southeast Asian countries like Cambodia, Laos, and Vietnam.
 - **Culturally:** **Buddhism, a major cultural and religious tradition that connects many Southeast Asian and East Asian nations, originated in India.**

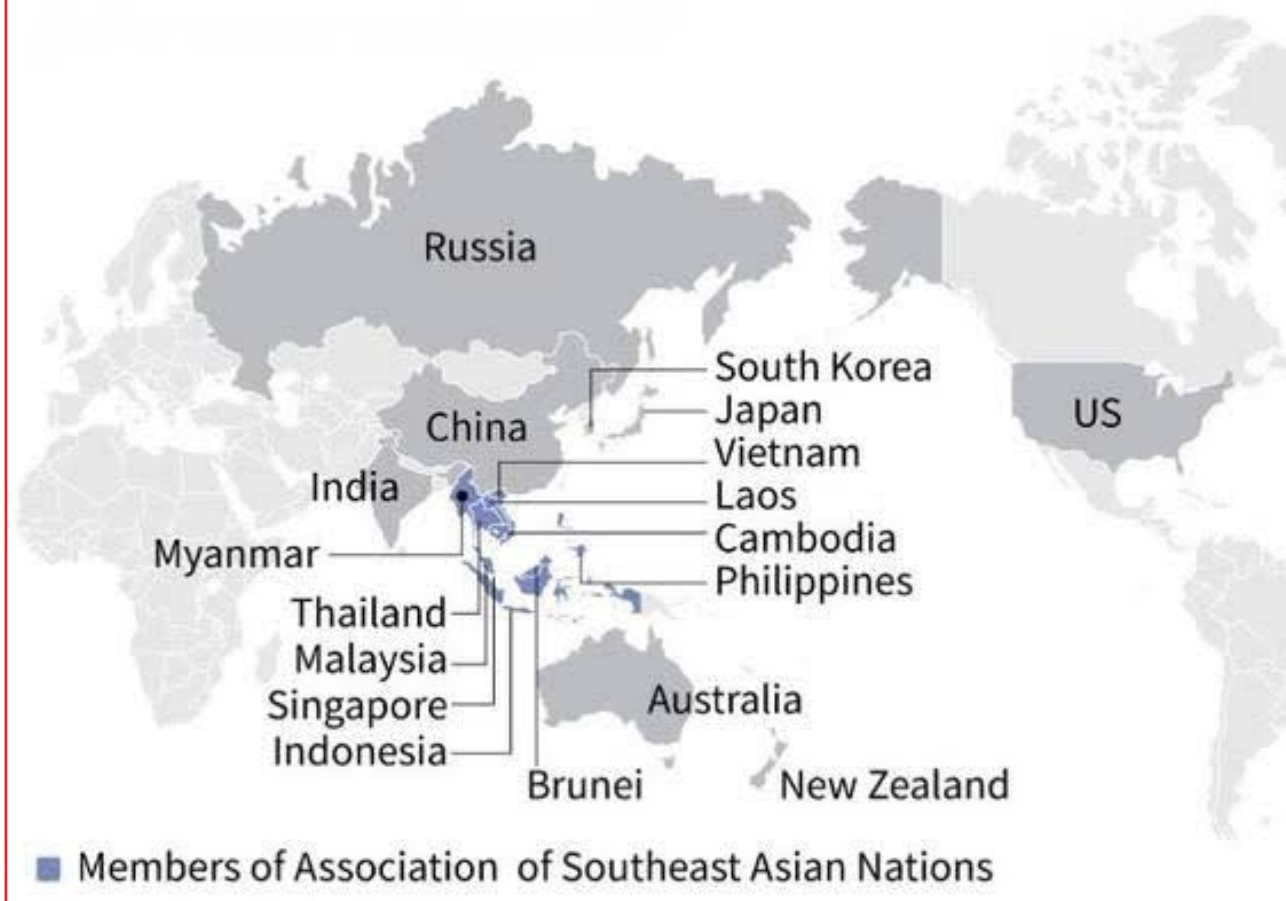
Note:



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- Restoration of **Nalanda University** and support for the **International Buddhist Confederation**, enhance India's spiritual and cultural ties with Myanmar, Thailand, and Cambodia, showcasing its commitment to promoting **Buddhist traditions**.

East Asia Summit



10 Point Plan for India-ASEAN Relations

Why in News?

Recently, India's Prime Minister announced a **10-point plan** at the **21st ASEAN-India Summit 2024** in Vientiane, Laos.

- He also participated in the **44th ASEAN summit** with the theme **ASEAN: Enhancing Connectivity and Resilience** and **19th East Asia Summit**.
- Year 2024 also marked **10 years of India's Act East Policy** that was announced in **2014** to strengthen **India-ASEAN ties** in trade, security, and connectivity in the **Indo-Pacific**.

What are the Key Facts About the 21st ASEAN-India Summit 2024?

- **ASEAN and India Overview:** ASEAN and India together represent **7% of the world's GDP** and **26% of the global population**.

Note:



- **Emerging Technologies:** India and ASEAN agreed to collaborate on **Artificial Intelligence (AI), Blockchain, Internet of Things (IoT), Robotics, Quantum Computing, and 6-G technology.**
- **Digital Transformation:** They issued a joint statement on advancing **digital transformation** covering **digital infrastructure, fintech, and cybersecurity.**
 - India will share its expertise in **digital public infrastructure**, like **Aadhaar** and **UPI**, with **ASEAN** nations.
- **ASEAN-India Trade Growth:** In the last ten years, **India-ASEAN trade** had doubled to over **USD 130 billion.**
 - However, **India's trade deficit** with ASEAN has risen to **USD 44 billion in FY23**, compared to **USD 8 billion in FY13.**
 - India is ASEAN's **sixth largest trading partner** and **eight largest source of FDI** among **ASEAN Dialogue Partners.**
- **Trade in Local Currency:** Some ASEAN countries and India have started trading in **local currencies**, with **Malaysia** leading the way and other ASEAN nations expected to follow.
- **Investment Flows:** India and ASEAN's **Global Value Chains (GVCs)** have grown, with total investments surpassing **USD 125 billion from 2000 to 2023.**

Note:



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- **Financial Integration:** In June 2024, the **Reserve Bank of India** officially joined **Project Nexus** with ASEAN which enables **real-time cross-border transactions** between India's UPI and Singapore's PayNow system.
- **Regional Security:** Both agreed to enhance the **ASEAN-India Comprehensive Strategic Partnership** for regional peace, stability, and prosperity, aligned with the **ASEAN Outlook on the Indo-Pacific (AOIP)** and supported by India's **Act East Policy (AEP)**.
- **Code of Conduct for the South China Sea:** Both supported full implementation of the **Declaration on the Conduct of Parties (DOC)** in the **South China Sea** and called for an effective **Code of Conduct (COC)** in line with **UNCLOS 1982**.
- **Defence and Security Cooperation:** Both agreed to ensure **maritime security**, counter-terrorism, **cybersecurity** etc through joint military exercises and naval port calls. E.g., **ASEAN India Maritime Exercise**.

Note: The India's Prime Minister announced a **12-point agenda** at **Jakarta in 2023** to boost **India-ASEAN economic relations**, highlighting India's strong commitment to this partnership.

What is India's 10-Point Plan for ASEAN Cooperation?

- **ASEAN-India Year of Tourism 2025:** India will contribute **USD 5 million** for joint tourism activities.
- **Celebrating a Decade of the Act East Policy:** Events like **Youth Summit, Start-up Festival, Hackathon, Music Festival**, and **Think Tank initiatives** will be organised.
- **Women Scientists Conclave:** ASEAN-India Science collaboration through a conclave for women scientists.
- **Educational Scholarships:** Doubling **Nalanda University** scholarships and offering new scholarships for ASEAN students in Indian agricultural universities.
- **Trade Agreement Review:** The **ASEAN-India Trade in Goods Agreement** will be reviewed by 2025.
- **Disaster Resilience:** India to provide **USD 5 million** to strengthen **ASEAN's disaster resilience**.
- **Health Ministers' Track:** Regular interactions between ASEAN and Indian health ministers to build health resilience.
- **Cyber Policy Dialogue:** Establishing an **ASEAN-India dialogue for digital and cyber resilience**.
- **Green Hydrogen Workshop:** Supporting ASEAN's energy transition with a **green hydrogen** workshop.

- **Climate Resilience Initiative:** ASEAN leaders invited to join India's "**Plant a Tree for Mother**" campaign.

Civil War in Sudan

Why in News?

Recently, the **Sudanese Armed Forces (SAF)** launched a significant offensive against the **Rapid Support Forces (RSF)** in **Khartoum** and **Bahri**, reigniting a conflict that had quieted for several months.

- This renewed offensive comes amid a civil war that has persisted for over 18 months, with more than **20,000 deaths** reported and nearly **11 million** people displaced as of **October 2024**.

What is the Origin of the Civil War in Sudan?

- The war is rooted in a **power struggle** between SAF leader **Abdel Fattah al-Burhan** and RSF leader **Hamdan Dagalo (Hemedti)**.
- It started in **Khartoum** but has spread to other regions like **Omdurman, Bahri, Port Sudan**, and the **Darfur** and **Kordofan** states.
- **Historical Background:**
 - Sudan was a joint protectorate under **Egypt** and the **UK** during the **Anglo-Egyptian Condominium**.
 - Sudan gained independence in **1956**, facing internal challenges between the wealthier **Arab Muslim north** and the **Christian/Animist south**.
 - Two major civil wars, **first (1955-1972)** and **Second (1983-2005)**, led to the deaths of millions, atrocities, and eventually leading to the **secession of South Sudan** in 2011.
 - The second civil war ended with a peace agreement in 2005, but tensions and internal conflict remained, particularly in **Darfur**.
- **Omar al-Bashir's Regime:**
 - Bashir took power in a **1989 coup** and ruled Sudan for 30 years.
 - He imposed a strict interpretation of **sharia law**, used **private militias (Janjaweed)** to fight rebels, and persecuted minority religions.
 - Bashir's regime was condemned for **genocide in Darfur**, particularly targeting **non-Arab groups** like the **Fur, Zaghawa, and Masalit**.

Note:



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A multifaceted war

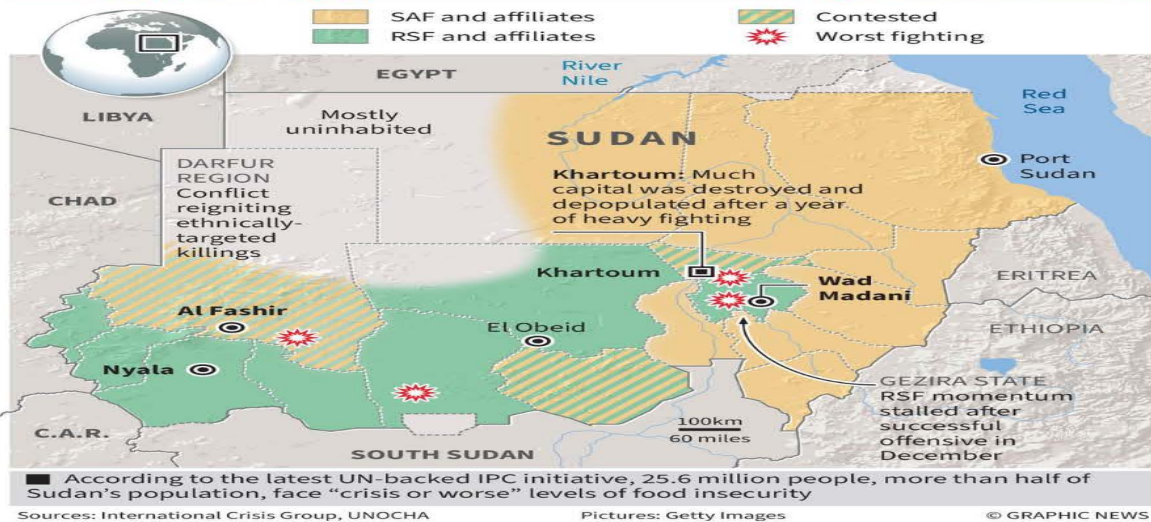
The ongoing civil war in Sudan has killed more than 20,000 people, according to the United Nations. Additionally, the International Organization for Migration has estimated a record 10,890,722 internally displaced people in Sudan



To the brink: Displaced people queue for food aid at a camp in Gedaref, Sudan on September 23. AFP



■ **April 15, 2023:** Power struggle between the Sudanese Armed Forces (SAF), led by Abdel Fattah al-Burhan (left), and the Rapid Support Forces (RSF) militia, led by Mohamed Hamdan Dagalo, known as Hemedti (right), erupted into a full-scale conflict



○ **Bashir's Overthrow:**

- By 2019, protests against Bashir's oppressive rule intensified, leading to his removal in an April coup supported by both SAF and RSF.
- After his overthrow, Sudan entered a transitional phase under military and civilian leadership.

➤ **RSF's Origin and Power:**

- RSF emerged from the **Janjaweed militia**, a key force in the **Darfur conflict** responsible for widespread atrocities.
- Formally organized in **2013**, the RSF gained wealth and influence especially through control over **gold mines**.

➤ **Transitional Government:**

- After Bashir's fall, a **Transitional Sovereignty Council** was formed.
- **Prime Minister Abdalla Hamdok**, a civilian leader, sought economic stability but was ousted in a 2021 coup led by the SAF and RSF. Later his resignation left Sudan without effective civilian leadership.

Note:

- **The December 2022 Deal:**
 - The **December 2022 agreement** outlined a two-year transition to **civilian rule**.
 - However, tensions emerged over **RSF integration** into the armed forces, with **Burhan** and **Hemedti** disagreeing on timelines.
- The involvement of foreign actors, such as the **Wagner Group** and military support from **UAE**, has complicated the conflict, making it harder to resolve.



What are the Reasons for Persistent Conflict in Sudan?

- **Power Struggle:** Both the **SAF** and **RSF** are determined to consolidate power, with each faction seeking dominance over the other.
 - The **SAF** claims to be the legitimate government, while the **RSF** challenges it.
- **Weapon Supply:** Despite an arms embargo by the **United Nations** since the **2004 Darfur crisis**, weapons continue to flow into the country.
 - Advanced military equipment, often supplied by **Russia, China, and UAE**.

Note:

- **Ethnic Tensions:** The conflict has taken on an ethnic dimension.
 - Eg. In **Darfur**, Arab militias support the RSF, while non-Arab communities like the **Masalit** back the SAF.
- **Foreign Interference:** Each side is receiving external support, reducing their incentive to compromise or seek peace.
- **Failed Peace Talks:** Despite numerous ceasefire efforts, particularly led by **Saudi Arabia** and the **US** like the **Jeddah Declaration (2023)**, none have succeeded.

Colombo Security Conclave Charter

Why in News?

Recently, the members of **Colombo Security Conclave (CSC)** India, Sri Lanka, the Maldives and Mauritius signed a **Charter** and a **memorandum of understanding**, for the establishment of the **CSC secretariat** in Colombo.

- **Bangladesh** was absent and **Seychelles** participated as an observer state.

What are the Key Facts About the Colombo Security Conclave?

- **Background of CSC:** It was originally known as the **NSA Trilateral on Maritime Security** and was established between **India, Sri Lanka, and the Maldives** in 2011.
 - It was an initiative of **Sri Lanka** to enhance **maritime security** in the **Indian Ocean Region**.
- **Members:** **India, Sri Lanka, and the Maldives** were its founding members.
 - **Mauritius** joined the conclave in **2022** while **Bangladesh** joined in **2024**. **Seychelles** is an observer state.
- **Goals of CSC:** Cooperation under the CSC focuses on **five goals**:
 - **Maritime safety** and security.
 - Countering **terrorism and radicalisation**.
 - Combating **trafficking** and transnational **organised crime**.
 - **Cyber security** and protection of critical infrastructure and technology.

- **Humanitarian assistance and disaster relief.**

- **Defence Exercises:** In November 2021, India, Sri Lanka, and Maldives conducted **Exercise Dosti XV** in Maldives.
 - **India, Sri Lanka, and Maldives** subsequently conducted their first joint exercise in the **Arabian Sea** under the aegis of the CSC.
- **Dialogues and Meetings:** The **first dialogue** among the three countries took place in **2011 in the Maldives**, followed by meetings in **Sri Lanka (2013)** and **India (2014)**.
 - The dialogue stalled **after 2014** due to rising **India-Maldives tensions** and **China's growing influence** in the Indian Ocean.
 - It was revived and re-branded as the **Colombo Security Conclave** in 2020.
- **Significance of CSC:** The CSC strengthens **India's Indian Ocean outreach**, counters **China's influence**, enhances **maritime security**, aligns with the **SAGAR vision**, and fosters **sub-regionalism** among six Indian Ocean nations on a **shared security platform**.

Why is the Indian Ocean Important for India?

- **Central Location:** The Indian Ocean, stretching from **Africa to Australia**, positions India to control **key maritime routes**, including critical choke points like the **Straits of Malacca** and **Hormuz**, vital for global trade and national interests.
- **Trade Routes:** India has historically acted as a **resident power** in the Indian Ocean, occupying **40% of strategic waters**
 - Approximately **95% of India's trade by volume** and **68% by value** passes through the Indian Ocean.
- **Energy Security:** India relies heavily on the Indian Ocean for its energy needs, with nearly **80% of crude oil requirements** imported via this route.
- **Rich in Minerals:** The Indian Ocean accounts for **40% of the world's offshore oil production** and reservoir for minerals such as **nickel, cobalt, and copper**.
- **Fishing Industry:** The Indian Ocean has significant **fishing grounds** and India's fishing industry employs approximately **14 million people**.

Note:



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Maldives' President State Visit to India

Why in News?

Recently, Maldives President Mohamed Muizzu paid a four-day **state visit to India** and called New Delhi a **valued partner**.

- The visit is significant as President Mohamed Muizzu earlier focused on **capitalising on anti-India sentiments** and his ministers' **derogatory remarks** against the Indian Prime Minister.

What are the Key Outcomes of the Visit?

- **Strengthening Bilateral Ties:** India reaffirmed its commitment to supporting the Maldives under its **Neighbourhood First policy** and the **SAGAR (Security and Growth for All in the Region) vision**.
- **Emergency Financial Assistance:** India provided **Treasury bills (T-bill)** worth **USD 100 million** to address its urgent financing needs.
 - In addition, India extended a **USD 400 million and Rs 30 billion** bilateral **currency swap agreement** to further support the Maldives in managing its financial difficulties.
- **Comprehensive Economic and Maritime Security Partnership:** Both countries agreed to transform the relationship into a **Comprehensive Economic and Maritime Security Partnership**.
 - This framework will be **people-centric, future-oriented**, and an anchor for stability in the **Indian Ocean Region**.

Note:



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- **Development Cooperation:** India and Maldives will prioritise the timely completion of the Greater Male Connectivity Project (GMCP) and conduct a feasibility study for connecting **Thilafushi and Giraavaru islands**.
 - Both sides will collaborate on developing a **commercial port at Thilafushi**, expanding transshipment and bunkering services, and maximising the potential of airports like **Hanimaadhoo and Gan**.
- **Trade and Economic Cooperation:** The two sides agreed to initiate discussions on a bilateral free trade agreement, local currency trade settlement, investment promotion, **economic diversification** and boosting tourism.
- **Digital and Financial Cooperation:** The two sides agreed to cooperate in the domain of Digital Public Infrastructure (DPI) by launch of India's Unified Payments Interface (UPI), Unique Digital Identity, Gati Shakti Scheme and other digital services that will enhance e-governance and delivery of services.
 - India launched **RuPay card in Maldives** to enhance ease of payments for Indian tourists visiting Maldives.
- **Energy Cooperation:** Both sides will collaborate on **renewable energy and energy efficiency** projects to enable the Maldives to meet its climate goals.
 - India will assist in the Maldives' participation in the One Sun One World One Grid initiative, a global solar energy project.
- **Health Cooperation:** Jan Aushadhi Kendras will be set up across the Maldives to supply **affordable generic medicines** from India.
 - Both countries will collaborate on mental health services, **drug de-addiction**, and emergency medical evacuation capacity-building efforts.



- **Defence and Security Cooperation:** Both sides acknowledged the importance of completing the **Maldives National Defence Force (MNDF) 'Ekatha' harbour project at Uthuru Thila Falhu (UTF)**, funded by India, which will boost MNDF's operational capabilities.
- **Food Security:** Both countries agreed to jointly work in establishing **Agriculture Economic Zone** and tourism investments in **Haa Dhaalu atoll** and **fish processing and canning facility** at Haa Alifu atoll with Indian assistance.
- **Capacity Building and Training:** A **Start-up Incubator-Accelerator** will be established in the Maldives to foster youth innovation and entrepreneurship.
- **People-to-People Linkages:** Both countries decided to establish **consulates in Bengaluru (India) and Addu City (Maldives)** to promote people-to-people interactions.

Note:

- Set up higher education institutions, skill centres, and an **Indian Council for Cultural Relations Chair** at the Maldives National University.
- **Regional and Multilateral Cooperation:** India and the Maldives reaffirmed their commitment to close cooperation in regional and international fora, particularly in the **Colombo Security Conclave (CSC)**.
- **Political Exchanges:** Both agreed to formalise cooperation between their respective parliaments, recognising shared **democratic values** as a driver of bilateral relations.
- **Establishment of High-Level Core Group:** To ensure timely and effective implementation of the cooperation framework, a new **High-Level Core Group** will be established.

Why Maldivian President Soften his Anti-india stance?

- **Economic Crisis in the Maldives:** The Maldives is currently facing a **severe economic crisis**, with its foreign exchange reserves dwindling to just **USD 440 million**, enough to cover **only 1.5 months of imports**.
 - This is compounded by the threat of a **debt default**, as flagged by **Moody's**, which downgraded the country's credit rating.
- **Economic Dependence:** The Maldives' dependence on **Indian tourists** for its vital tourism industry also plays a role.
 - Indian tourists make up **one of the top contributors** to the Maldives' tourism economy, and a decline in Indian visitors due to strained relations led to an estimated **USD 150 million loss**.
 - India is the **fifth-largest trading partner** of the Maldives, providing essential supplies such as **food, medicine, and construction materials**.
- **Strategic Importance of India:** Historically, India has been a **key player** in the Maldives' development and security landscape. Alienating India could **undermine** the Maldives' **regional stability and security**.
 - Maldivian President acknowledged India's continued role as the **'First Responder'** of Maldives in times of need. E.g., **water crisis in 2014 in Male** and the **Covid-19 pandemic**.
 - India has been the Maldives' **primary security partner**, demonstrated by historical operations like **"Operation Cactus" (1988)**, where India intervened to stop a coup attempt.

- **Geopolitical Balancing with China:** His softened stance indicates a pragmatic approach to **balancing relations** with both India and China, rather than an **outright pivot to China**.
 - It allows the Maldives to continue benefiting from India's development and security partnerships while maintaining a **diversified foreign policy**.
- **Political Realism:** The tensions between India and Maldives, fueled by political rhetoric and social media spats, were seen as damaging to bilateral relations.
 - The visit is a strategic move to ensure that **bilateral relations with India remain strong**, given the economic and geopolitical importance of the partnership.

What is the Significance of Maldives for India?

- **Strategic Location:** The Maldives is situated along key **International Shipping Lanes (ISLs)** in the Indian Ocean, vital for **global trade and energy flows**.
 - Around **50% of India's external trade and 80% of its energy imports** pass through these lanes.
- **Countering Chinese Influence:** India views the Maldives as a **critical player** to **counterbalance China's growing influence** in the region and ensure its security.
- **Indian Ocean as India's Backyard:** A **favourable and positive** maritime environment in the Indian Ocean is essential for the fulfilment of **India's Strategic priority**. For this, Maldives is an important partner in the **Indian Ocean Region**.
- **Climate Change Collaboration:** The Maldives, with its **vulnerability to sea-level rise** and climate disasters, is an important partner for India in **climate change adaptation and mitigation** strategies.

Israel-Hezbollah Conflict and War Theory

Why in News?

- Recent conflicts, such as the prolonged **Israel-Hezbollah war**, the **Russia-Ukraine war**, and unrest in many other parts of the world have revived the debate over whether large-scale violence can ever be justified.
- The **three major schools of thought** provide distinct ethical viewpoints on this matter providing distinct perspectives on the morality of war, making this issue increasingly relevant today.

Note:

What are the Reasons of Conflict Between Israel and Hezbollah?

➤ Origins of the Conflict (1982):

- The establishment of the **State of Israel in 1948** triggered mass displacement of over 750,000 Palestinian Arabs (**during the 1948 Arab-Israeli war**).
- Many of these refugees sought shelter in **southern Lebanon**, heightening tensions in the region. This situation was further complicated by conflicts among various Lebanese factions, including Christian militias and Palestinian groups.
- During the 1960s and 1970s, the presence of the **Palestine Liberation Organization (PLO)** in southern Lebanon escalated Israeli security concerns.
 - In response to PLO attacks on northern Israeli towns, Israel launched military operations in Lebanon (1978 and 1982), leading to prolonged occupation and the **eventual rise of Hezbollah**.
- Hezbollah was established in 1982, with Iranian support, **in response to the Israeli invasion** and the **ongoing civil war**, aiming to **resist Israeli occupation and protect Lebanese sovereignty**.

➤ Escalation of Violence (1980s - 1990s):

During the 1980s, Hezbollah conducted **guerrilla warfare against Israeli forces** and their allies in Lebanon, notably bombing US and French barracks in 1983, causing significant casualties.

- By 1985, as Hezbollah's military strength increased, Israel withdrew to a self-declared **"security zone" in southern Lebanon**, which it held until 2000.

➤ Political Integration and Continued Hostilities (1990s):

Following the Lebanese civil war, **Hezbollah integrated into politics**, securing parliamentary seats and establishing a social support network, which **enhanced its legitimacy among Shia communities**.

- In 1993, Israel launched "Operation Accountability" in response to Hezbollah attacks, resulting in significant civilian casualties and infrastructure damage in Lebanon known as **Seven-Day War (1993)**.

➤ The July War (2006):

In July 2006, Hezbollah captured two Israeli soldiers, prompting a large-scale Israeli military response. The conflict lasted 34 days and resulted in around 1,200 Lebanese and 158 Israeli fatalities. The war underscored Hezbollah's military capabilities and solidified its position as a key player in Lebanese and regional politics.

➤ Recent Developments (2010s - Present):

- **Syrian Civil War Involvement:** Since 2012, Hezbollah has intervened in the Syrian civil war **to support the Assad regime**, gaining valuable combat experience despite facing criticism.
- **Gaza Conflict (2023):** In October 2023, Hezbollah launched a **rocket campaign in solidarity with Gaza** amid escalating Israeli military actions, intensifying cross-border hostilities.
- **Recent Escalations:** The assassination of key Hezbollah leaders and the **blast of walkie-talkie and pagers** in September 2024 have increased tensions, with Hezbollah vowing retaliation, raising the possibility of further conflict.

What is the Ethical Basis for War and Peace?

➤ Just War Theory (JWT): A Measured Approach:

○ About:

- **Just War Theory (JWT)** is a **significant framework in international law**, primarily articulated by philosophers such as **Augustine and Aquinas**.
- It holds that **war can be morally justified in certain situations**, though it is not commendable merely for its strategic or bold nature.
- It views war as an acceptable form of mass political violence under specific conditions.

○ Parts of JWT:

- **Jus ad Bellum (Just Cause):** This principle focuses on the **justification for initiating war**. Just causes include **self-defense, preventing future aggression, and stopping ongoing atrocities**.
 - **Example:** Allied forces' intervention in **World War II** is often cited as a just war, responding to aggression and atrocities committed by Axis powers.
- **Jus in Bello (Right Conduct):** This principle dictates **how war is waged**. It emphasises **minimising civilian casualties, avoiding unnecessary suffering, and respecting the rights of non-combatants**.
 - Violations of these principles can lead to **war crimes**, as outlined in **international humanitarian law**.
- **Jus Post Bellum (Just Peace):** This principle focuses on a **just and lasting peace** following the war. It emphasises **fair treatment of the defeated, reconstruction efforts, and addressing the root causes of conflict**.

Note:



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➤ **Realism: Power Politics Prevail**

○ **Thought:**

- Realism asserts that **moral considerations have no place in international relations**.
- According to realists, states operate in an **anarchic international system** where **power and national security are paramount**.
 - **They believe that national security, national interest, and the pursuit of power are the driving forces in international politics, and war becomes a tool to achieve these goals.**
- It was articulated by philosophers like **Thucydides** and **Machiavelli**.
- They **criticise Just War Theory** for being impractical and idealistic, arguing that focusing on morality weakens a state's ability to defend itself and pursue its interests.

○ **Criticism of Realism:** Critics of realism point out that a **complete disregard for ethics** can lead to brutal and unnecessary wars.

○ **Examples:** Historical events like the lead-up to **World Wars I** and **World Wars II** show that **states prioritise strategic calculations over ethics**.

- The **Cuban Missile Crisis** highlights this realist view, with national security outweighing moral concerns.

➤ **Pacifism: Abhorring All Violence**

○ **Thought:**

- Pacifists **reject all forms of violence, including war**, and **promote nonviolent resistance and diplomacy** to resolve conflicts, **aligning with the ideals of leaders like Mahatma Gandhi and Martin Luther King Jr.**

Note:



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- Pacifists **critique Just War Theory** by arguing that **any justification for war leads to more violence** and suffering.
- They believe that **creative and persistent nonviolent methods** can achieve more lasting peace than armed conflict.
- **Criticism of Pacifism:**
 - Critics argue that **pacifism can be unrealistic** when **confronting aggression and evil**, suggesting that military force may sometimes be necessary to prevent or stop atrocities.

What is Hezbollah?

- Hezbollah, which translates to “Party of God,” is a **Shia militia and political party based in Lebanon**.
- **Origin of Hezbollah:**
 - Hezbollah was **founded in 1982** as a **resistance movement against the Israeli invasion of Lebanon during the Lebanese Civil War (1975-1990)**.
 - It received **support from Lebanon’s Shia community, Iran and its Islamic Revolutionary Guard Corps (IRGC) and Palestinian groups**, influenced by **Iran’s 1979 Islamic revolution**.
- It is recognized as one of the **most heavily armed non-state actors** globally, according to the **Center for Strategic and International Studies (CSIS)**.
- Several countries, including the United States and Israel, have designated Hezbollah as a terrorist organisation.

What are the Principles of India’s Foreign Policy?

- **Panchsheel (Five Principles):** It was first formalised in the **1954 Agreement on Trade between India and the Tibet** region of China, forming the foundation of India’s international relations. These principles are:
 - Mutual respect for territorial integrity and sovereignty
 - Mutual non-aggression
 - Non-interference in internal affairs
 - Equality and mutual benefit
 - Peaceful co-existence
- **Vasudhaiva Kutumbakam (The World is One Family):** India sees the world as a global family, promoting harmony, collective growth, and trust among nations, aligned with **Sabka Saath, Sabka Vikas, Sabka Vishwas**.

- The **Gujral Doctrine** is a set of **5 principles** to **guide India’s foreign relations with its immediate neighbours**, recognizing the supreme importance of friendly, cordial relations. These **5 principles** are:
 - India extends support to neighbours like Bangladesh, Bhutan, Maldives, Nepal, and Sri Lanka **without expecting reciprocity**, acting in good faith and trust.
 - No South Asian country should allow its territory to be **used against the interests of another** in the region.
 - Countries should **refrain from interfering in the internal affairs** of one another.
 - All South Asian nations must **respect each other’s territorial integrity** and sovereignty.
 - Disputes should be **resolved peacefully through bilateral negotiations**.
- **Proactive and Impartial Assistance:** India promotes **democracy and development** through proactive assistance, but always with the **consent of the concerned government**.
 - This emphasises **capacity building and institutional strengthening** in partner nations, as seen in **India’s efforts in Afghanistan**.
- **Support for the United Nations:** India is a founding member of the **United Nations (UN)** and supports the purposes and principles of the UN.
- **Strategic Autonomy:** It emphasises **independent decision-making** and **India favours partnerships** but **avoids formal military alliances**, maintaining flexibility in its international engagements.

Jamaican Prime Minister’s Visit to India

Why in News?

Recently, the **Prime Minister of Jamaica** visited India to solidify bilateral ties in a range of key areas including trade and investment. It will be the **first-ever bilateral visit of the Prime Minister of Jamaica to India**.

What are the Key Outcomes of the Visit?

- **Meeting the President of India:**
 - Both leaders agreed on the **need to further strengthen partnerships** across various levels, including parliamentary, academic, and cultural exchanges, as well as **collaboration in international forums**.

Note:

- The President appreciated Jamaica's participation in all **three editions of the Voice of the Global South Summits** and emphasised the shared commitment of both nations to reform multilateral institutions, including the **UN Security Council**, through groupings like the **L-69**.
- **Several Memorandum of Understanding (MoU) were Signed:**
 - The **governments of India and Jamaica** collaborate to share successful **digital public infrastructure**, the Cultural Exchange Programme, and **cooperation in sports**.
 - Between **NPCI International Payments Limited** and **Egov Jamaica Limited**.

The Voice of the Global South Summit (VOGSS)

- It is a new and unique **India-led initiative** that envisages bringing together countries of the Global South and sharing their perspectives and priorities on a **common platform** across a whole range of issues.
- It is a reflection of India's philosophy of **Vasudhaiva Kutumbakam**, or "One Earth, One Family, One Future", and the Prime Minister's vision of **Sabka Saath, Sabka Vikas, Sabka Vishwas and Sabka Prayas**.

How are the Relations between India and Jamaica?

- **India was among the first nations to recognize Jamaica after its independence**, establishing diplomatic relations in 1962, and setting up a resident mission in Kingston in 1976 following PM Indira Gandhi's visit.
- Jamaica established its Resident Mission in India in 2020.
- India and Jamaica have historically maintained **cordial and friendly relations**, built on shared ties of history, **parliamentary democracy**, **Commonwealth membership**, and a mutual love for cricket.
- Jamaica is home to a 70,000-strong **Indian diaspora**, one of the **girmitiya countries**, serving as a vital connection between the two nations. The year 2022 marks 177 years of the Indian community's presence in Jamaica.
 - The **Girmitiya countries** are countries where Indian indentured labourers settled, such as **Fiji, Guyana, Mauritius, South Africa, Suriname, Trinidad and Tobago, and Reunion Island**.

- Both countries are members of international organizations like the **Non-Aligned Movement (NAM)** and **G-77**.
 - As **developing nations**, India and Jamaica share similar goals, such as **economic growth**, **equity**, **poverty eradication**, and **improving citizens' quality of life**.

Jamaica

- It is an **island country of the West Indies** and **third largest island in the Caribbean Sea**, after Cuba and Hispaniola.
- It is situated **west of Haiti**, south of Cuba, northeast of the nearest point on the mainland, Cape Gracias a Dios, on the Caribbean coast of Central America.
- The **national capital is Kingston**.
- Its population being of **African ancestry**, descended from slaves brought by European colonists.
- **Jamaica gained independence from the UK in 1962** and remains a Commonwealth member.



Strengthening Ties between India and Sri Lanka

Why in News

Recently, the **External Affairs Minister S. Jaishankar** met with **Sri Lanka's newly elected President Anura Kumara Dissanayake** in Colombo, during which he pledged India's full support for the country's **economic recovery and growth**.

Note:

- Additionally, this meeting marked Jaishankar as the **first high-level foreign dignitary** to meet with him after the election.



What are the Key Highlights of the Meeting Between India and Sri Lanka?

- **Economic Support:**
 - During the meeting, India emphasised India's commitment to sectors such as **tourism, energy, and dairy**, while discussing boosting Indian **tourist inflow** to support Sri Lanka's economy.
 - India also recognized Sri Lanka's gratitude for its assistance during the financial crisis.
- **Fishermen and Security Concerns:**
 - India and Sri Lanka acknowledged the issue of **detained Indian fishermen**, emphasizing the need for their release, a review of fines, and addressing the seizure of assets **such as boats**.

Note:



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➤ **Support for Tamil Rights:**

- India reiterated its support for the aspirations of all communities in Sri Lanka, emphasizing the need for political solutions for Tamils and the implementation of the **13th Amendment**.
- The **13th Amendment** established Provincial Councils, ensuring a power-sharing framework that allows **all nine provinces**, including those with a **Sinhala majority**, to exercise self-governance.

What is the Historical Context of India-Sri Lanka Relations?

- In the **3rd century BCE**, **Mahinda**, the son of Emperor Ashoka, introduced Buddhism to Sri Lanka, forging a strong cultural and religious connection between the two nations.
- During the **10th century CE**, the **Chola dynasty** from **South India** invaded Sri Lanka several times, leaving a lasting cultural impact that shaped Sri Lankan art, architecture, and language.
- Both **India and Sri Lanka** achieved independence from British colonial rule in 1947 and 1948, respectively, with India playing a vital role in helping Sri Lanka develop its democratic institutions.
- **The Liberation Tigers of Tamil Eelam (LTTE)** (a terrorist organisation) were formed in **1976** and engaged in armed conflict with the Sri Lankan government from **1983 to 2009**.
- In response to the conflict, India and Sri Lanka signed the **1987 India-Sri Lanka Agreement**, which led to the implementation of the 13th Amendment and the deployment of the **Indian Peace Keeping Force (IPKF)** to Sri Lanka.
- The Sri Lankan Civil War came to an end in 2009 following a military offensive.

What are the Major Areas of Cooperation Between India and Sri Lanka?

- **Development Cooperation:** India is a significant provider of **development aid** to Sri Lanka, committing nearly **USD 4 billion**, including around **USD 560 million in grants**.
- Notable initiatives include the **Indian Housing Project, which aims to build 50,000 homes for war-affected communities**. Additional support includes electricity projects, railway development, and various community development initiatives.

- In 2022, India agreed to set up **hybrid power projects** in northern Sri Lanka and initiated development projects at **Kankesanthurai and Trincomalee ports**.

- **Economic Cooperation:** India and Sri Lanka have strengthened economic ties through the **India-Sri Lanka Free Trade Agreement (ISFTA)**, with India being Sri Lanka's **third-largest export** destination and **over 60%** of exports benefiting from the agreement.
 - They are also exploring an **Economic and Technology Cooperation Agreement (ETCA)** to further strengthen their economies.
 - Sri Lanka's adoption of India's **Unified Payments Interface (UPI)** has improved fintech connections, and using the rupee for trade supports its economy.
- **Cultural Relations:** The **1977 Cultural Cooperation Agreement** has enabled cultural exchanges, while the **Indian Cultural Centre** in Colombo promotes Indian arts and organizes **International Yoga Day**.
 - Additionally, the India-Sri Lanka Foundation, established in 1998, strengthens scientific and cultural collaboration.
- **Defence and Security Cooperation:** Since 2012, India has been involved in the **Indo-Sri Lankan Defence Dialogue**, focusing on security partnerships. Both nations conduct **joint military (Mitra Shakti) and naval (SLINEX)** exercises to enhance their defence collaboration.
 - India is providing support through a **free-floating dock facility**, a Dornier reconnaissance aircraft, and a training team, all aimed at bolstering security in the Indian Ocean region.
- **Multilateral Cooperation:** Both countries actively participate in regional organisations such as **BIMSTEC (Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation)** and **SAARC** as well as international bodies like the United Nations and the **World Trade Organization**.

What are the Challenges in India-Sri Lanka Relations?

- **Political Instability:** Sri Lanka has faced political turbulence in recent years, characterised by frequent government changes, which has impeded its ability to engage with India and pursue cooperative economic initiatives.

Note:

- **Geographical Concerns:** India recognises Sri Lanka's sovereignty over **Katchatheevu under the 1974** agreement, but political commentary over the island and the authenticity of the agreement raise diplomatic concerns between the countries.
- **Strategic Concerns:** China's establishment of the **Colombo and Hambantota ports** under its **Maritime Silk Route initiative** poses strategic challenges for India. Moreover, China has partnered with **Sri Lanka's Supreme SAT** for **satellite launch operations**.
- **Fishermen's Issue:** Sri Lanka has consistently voiced concerns over illegal fishing by Indian fishermen in its waters, resulting in regular arrests for violating the **International Maritime Boundary Line (IMBL)**.
- **Tamilian Interests:** India seeks to fulfil the Tamil community's aspirations for **equality, justice, and peace**, promoting the devolution of powers as outlined in the 13th Amendment. However, Colombo has yet to demonstrate a firm commitment in this regard.
- **Border Security Concern:** The porous maritime border between India and Sri Lanka has resulted in challenges related to border security, including the smuggling of goods, narcotics, and illegal immigrants.

US-India Nuclear Cooperation and Small Modular Reactors

Why in News?

Recent developments indicate a **revitalization of the civil nuclear deal between India and the United States (US)**, with **Holtec International's small modular reactor (SMR-300)** at the forefront.

- Holtec aims to collaborate with India to meet energy demands of India and advance clean energy goals by **utilising existing coal plant sites** for SMR deployment and exploring joint manufacturing, thereby aligning with **India's clean energy transition objectives**.

What is the SMR-300?

- **About:** The SMR-300 is an advanced pressurised **light-water reactor** that uses **low-enriched uranium fuel** to produce at least 300 megawatts (MWe) of electric power through **fission**.
- **Compact Design:** The SMR-300 requires significantly **less land** compared to traditional reactors, making it suitable for existing coal plant sites in India.

- **Support for Clean Energy Transition:** This technology is pivotal for India's clean energy goals, offering a competitive **alternative to fossil fuels** in the face of increasing energy demands, especially from technology sectors like **Artificial Intelligence** and **data centres**.
 - By developing SMRs, India aims to position itself as a **credible alternative in the global nuclear market**, competing against established players like Russia and China.
- **Challenges in Implementing SMR-300 in India:**
 - **Civil Liability for Nuclear Damage Act, 2010:** This legislation creates challenges for foreign nuclear suppliers by **placing liability primarily on equipment manufacturers**.
 - As a result, many potential partners are **hesitant to invest in India's nuclear sector** due to concerns about potential financial liabilities arising from accidents.
 - **Export Regulations:** The **US Atomic Energy Act of 1954** restricts US companies like Holtec from manufacturing nuclear equipment in India, complicating the potential for local production of SMR components.
 - **Legislative Limitations:** India's existing legislative framework **lacks the flexibility to amend liability laws**, hindering smoother collaboration with foreign entities.
- **Future Prospects for SMR-300 in India:** Collaborating on SMR technology could enhance US-India ties, addressing both nations' technological constraints and labour cost challenges.

India-US Nuclear Deal

- The **India-US Nuclear Deal** also known as the **US-India Civil Nuclear Agreement**, was signed in 2008. This agreement stemmed from a joint statement made in 2005 by then Indian Prime Minister Manmohan Singh and US President George W. Bush.
 - The agreement aimed to facilitate **civil nuclear cooperation between the two countries**, marking a significant shift in US policy, which had previously **restricted nuclear trade with India** due to its non-signatory status to the **Nuclear Non-Proliferation Treaty (NPT)**.
- The India-US nuclear deal, often referred to as the **"123 Agreement,"** allows US companies to supply **nuclear fuel and technology** for India's civilian nuclear energy program.

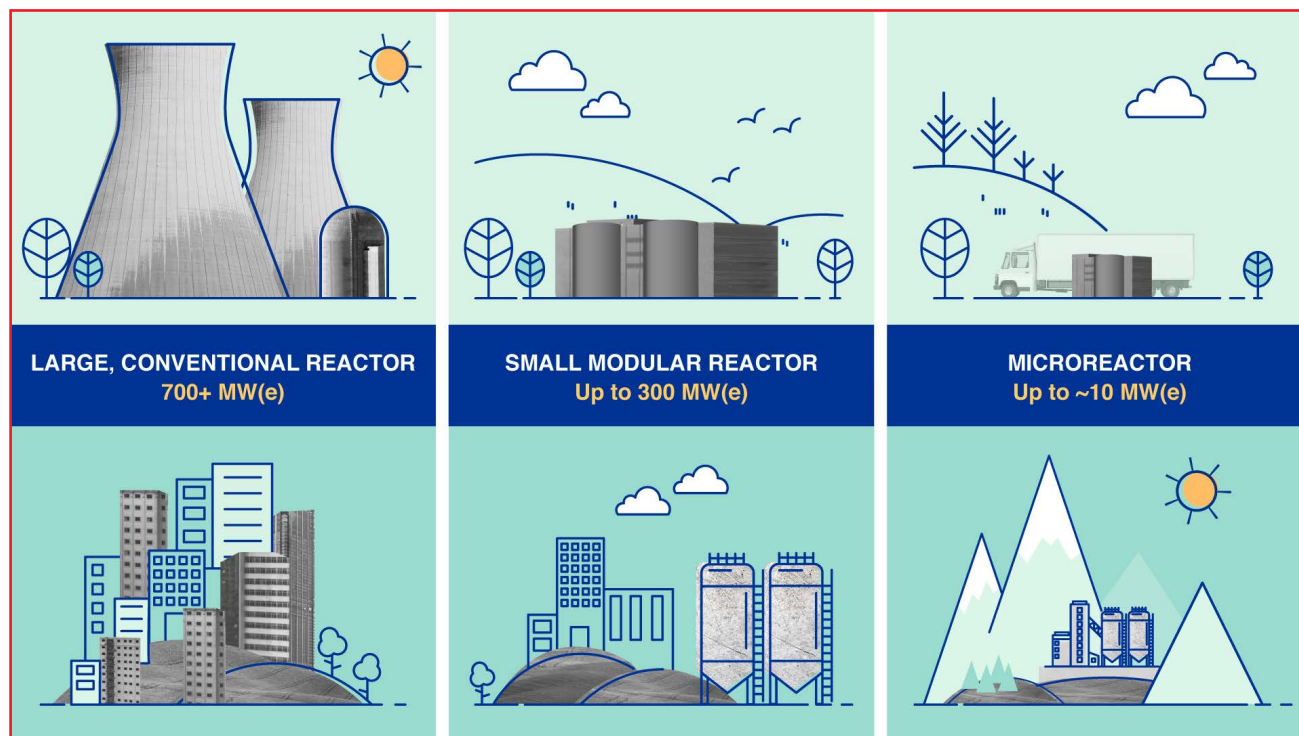
Note:

- As a part of India-US Nuclear Deal, India committed to allowing inspections from the **International Atomic Energy Agency (IAEA)** for its civilian nuclear program.
- **Benefits to India:** India gained eligibility to buy US **dual-use nuclear technology**, including materials and equipment for **uranium enrichment** and plutonium reprocessing.
 - The deal was expected to enhance India's energy security and help meet its growing energy demands through nuclear power.

What are Small Modular Reactors (SMRs)?

- **About:** According to the **IAEA**, small modular reactors (SMRs) are advanced nuclear reactors designed for enhanced safety and efficiency. Their power generation capacity typically ranges from **less than 30 MWe to over 300 MWe**.
- **Features:**
 - **Small:** Physically smaller than conventional nuclear power reactors, allowing for flexible deployment in various locations.
 - **Modular:** Designed for factory assembly, enabling transportation as a complete unit for easier installation.

- **Reactors:** Utilise nuclear fission to generate heat for electricity production or direct applications.
- **Global Status of SMR Technology:** Globally, there are **over 80 SMR designs in various stages of development** and licensing, with some already operational. These designs fall into several categories.
 - **Land-based Water-Cooled SMRs:** Include designs like integral pressurised water reactors (PWRs) and boiling water reactors (BWRs) utilising mature technologies.
 - **Marine-Based Water-Cooled SMRs:** Designed for deployment in marine environments, such as floating units installed on barges or ships.
 - **High-Temperature Gas-Cooled SMRs (HTGRs):** Capable of producing heat over **750 degrees Celsius**, making them efficient for electricity generation and various industrial applications.
 - **Liquid Metal-Cooled Fast Neutron Spectrum SMRs (LMFRs):** Utilise fast neutron technology with coolants like sodium and lead.
 - **Molten Salt Reactor SMRs (MSRs):** Employ molten fluoride or chloride salts as coolants, allowing for long fuel cycles and online refuelling capabilities.
 - **Microreactors (MRs):** Extremely small SMRs designed to generate electrical power typically up to **10 MWe** using various coolants.



Note:

Note:

- As of now, two SMR projects have reached the operational stage globally. **Akademik Lomonosov floating power unit in Russia** and **high-temperature gas-cooled (HTGR) pebble-bed** in China.

What are the Benefits and Challenges of SMRs?

Benefits of SMRs	Challenges Associated with SMRs
SMRs can be scaled up or down to meet varying power needs. Can supplement existing power plants with zero-emission fuel or repurpose ageing thermal power stations.	Numerous SMR technologies have varying regulatory requirements. Prioritising the right technology and improving Technology Readiness Levels (TRLs) is crucial for large-scale deployment.
SMR-based power plants can refuel every 3 to 7 years, compared to 1 to 2 years for traditional plants, with some designed for up to 30 years without refuelling.	Supply chain issues are crucial for SMR competitiveness. More efforts are needed to build resilient global supply chains
SMRs utilise passive safety features that rely on physics to shut down and cool the reactor without needing power or human intervention , ensuring inherent safety.	SMRs generate radioactive waste requiring storage and disposal facilities, which can provoke socio-political resistance.
Can be integrated with renewable energy sources, providing low-carbon co-products. Mitigates fluctuations in energy supply on daily and seasonal bases.	Lack of experience with innovative designs complicates safety standard approval. Public opposition may arise from fears of nuclear disasters, necessitating effective awareness and engagement to address concerns.

What are the Challenges in India's SMR Development Aspirations?

- **Technological Disparities:** India's current nuclear technology, primarily based on **heavy water and natural uranium**, is increasingly out of sync with the globally dominant **light water reactors (LWRs)**.
 - Transitioning to SMRs, which may utilise different fuel types, requires significant technological adaptation and expertise development.
- **High External Costs:** While SMRs are designed to be economically feasible, the **associated costs of building safe reactors** and managing spent nuclear fuel can significantly **inflate project expenses**, complicating economic viability.
- **Regulatory Hurdles:** Existing nuclear regulatory frameworks are primarily designed for **large reactors**, necessitating updates to accommodate SMR-specific features.
 - The establishment of a comprehensive regulatory framework that addresses diverse SMR technologies and designs is crucial.
- **Public Acceptance and Safety Perceptions:** Lack of **public familiarity** with innovative SMR designs may lead to safety concerns and opposition due to fears of **nuclear disasters like Chernobyl Disaster**.
- **Human Resource Development:** Significant investment in infrastructure and manufacturing facilities is needed to support SMR deployment. India lacks a skilled workforce with expertise in SMR operations is essential for the technology's successful implementation and sustainability.

India-France Strategic Dialogue**Why in News?**

Recently, during the **India-France Strategic Dialogue**, the French President praised India's peace efforts in a meeting with **National Security Advisor (NSA)** Ajit Doval and highlighted India's role in global diplomacy.

- Discussions also centered on a significant cost reduction for Rafale-M fighter jets and the enhancement of military capabilities.

Note:



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What are the Key Highlights of the Visit?

➤ Commitment to Horizon 2047:

- The NSA reiterated India's commitment to the **Horizon 2047 initiative**, which aims to strengthen India-France relations.

➤ Peace Initiatives:

- French president acknowledged the importance of India and France's efforts in advancing peace, particularly regarding the **Russia-Ukraine Conflict** and New Delhi's mediation role.

➤ Bilateral Defence and Space Cooperation:

- Talks with the French armed forces minister focused on strengthening bilateral defence ties and expanding space collaboration.
- Key discussions covered Rafale Marine jets, Scorpene submarines, and the integration of indigenous weapons on the Rafale jet.

Note:

- **Horizon 2047:** It outlines the roadmap for **France-India relations** across all sectors until 2047, the year that will commemorate 100 years of India's Independence, a century of diplomatic ties, and **50 years of the Indo-French strategic partnership**.
 - This vision document aims to enhance collaboration in defense, space, civil nuclear energy, renewable resources, cyberspace, digital technology, counter-terrorism, maritime security, joint defense exercises, and the blue economy.

Note:



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What are the Major Areas of Cooperation between India and France?

➤ Strategic Partnership:

- **India and France** have deep-rooted cultural, trade, and economic ties.
- The strategic partnership established in **1998** has gained momentum, evolving into a closer, multifaceted relationship encompassing various areas of cooperation.

➤ Defence Partnerships:

- Beginning with the **Rafale deal** and extending to the acquisition of 26 Marine aircraft, France has offered India some of its top defense systems.
- The **technology transfers** by France have already helped India construct **six Scorpene-class submarines** with another three now being procured to boost the navy's falling numbers.
- **Joint Exercises:** **Exercise Shakti (Army)**, **Exercise Varuna (Navy)**, **Exercise Garuda (Air Force)**.

➤ Civil Nuclear Cooperation:

India and France signed a civil nuclear cooperation agreement in 2008. France is involved in the development of the Jaitapur Nuclear Power Project, although progress has been slow since the initial agreement.

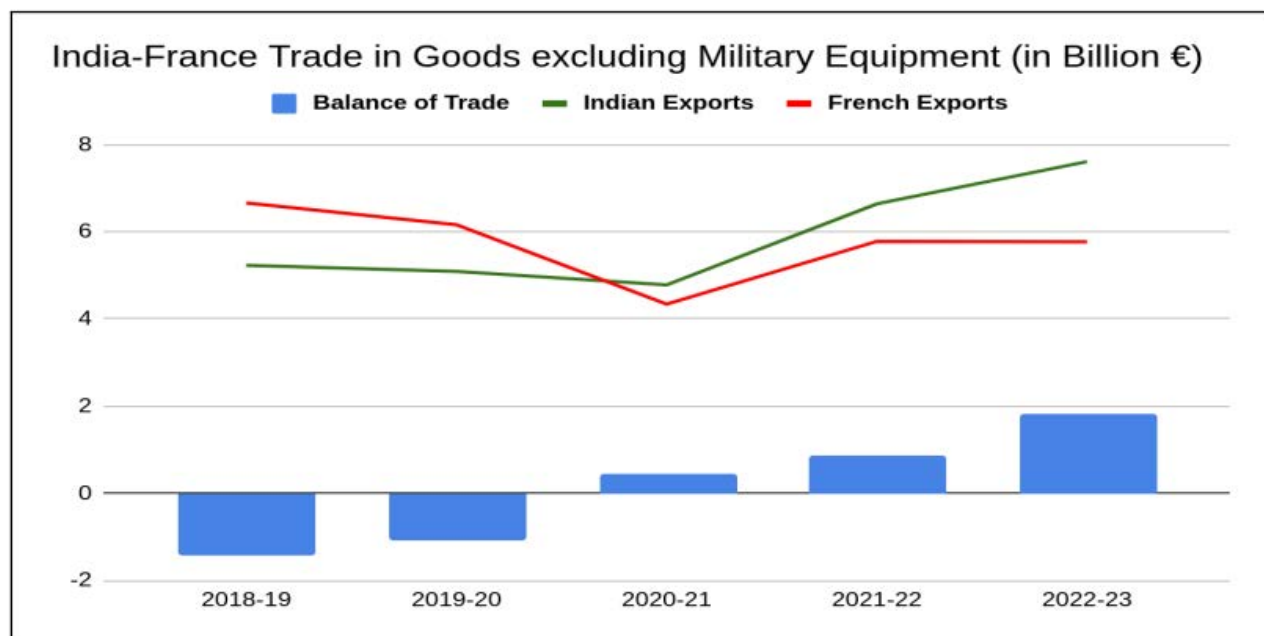
- Additionally, both nations have agreed to partner on Small Modular Reactors (SMR) and Advanced Modular Reactors (AMR).

➤ Marine and Maritime Cooperation:

Indo-French maritime collaboration is guided by the India-France Roadmap on Blue Economy and Ocean Governance, which was adopted in 2022.

➤ Economic Cooperation:

- France has become a key source of **FDI (Foreign Direct Investment)** for India, with over 1,000 French companies operating in the country.
- It ranks as the **11th largest foreign investor**, contributing USD 10.84 billion (1.63% of total FDI) from April 2000 to December 2023, according to DPIIT data.



Source: Ministry of Commerce & Industry (Data rounded off to nearest billion €)

Note:



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What are the Challenges in India-France Relations?

- **FTA Stagnation:**
 - The absence of an **FTA (Free Trade Agreement)** between France and India hinders the maximisation of their trade potential.
- **Differing Defense and Security Priorities:**
 - Despite a strong defense partnership, differing priorities can impact cooperation. India's regional focus and non-aligned stance sometimes conflict with France's global interests. For, e.g. differing stance on Russia- Ukraine conflict.
- **Intellectual Property Rights Concerns:**
 - France has expressed concerns over India's insufficient intellectual property protection, which affects French businesses and hinders a favourable environment for bilateral trade.
- **Human Trafficking Concerns:**
 - Cases like the Nicaragua flight human trafficking incident highlight the need for stronger cooperation in tackling transnational crimes and ensuring individual safety.
- **Visa Barriers:**
 - Correspondents in India voiced their concerns through a letter of protest, noting that they have been facing tighter visa restrictions in recent years which is resulting in challenges for reporting and coverage.
- **Barriers to Indian Products in France:**
 - India has faced difficulties exporting to France due to Sanitary and Phytosanitary (SPS) measures, which can discourage Indian products from entering the French market.

Implications of the Israel-Iran Conflict

Why in News?

The conflict between **Israel and Iran** has entered a volatile phase, raising concerns across various sectors, particularly trade and economics. As tensions escalate, the implications for India, an emerging player in the global market are becoming increasingly significant.



Note:

What are the Implications of the Israel-Iran Conflict on India?

- **Disruption of Trade Routes:** The conflict has heightened the risk of disruptions along key shipping routes crucial for India's trade with Europe, the US, Africa, and West Asia.
 - The **Red Sea and Suez Canal routes** are particularly vital, as they facilitate the movement of goods worth over USD 400 billion annually.
 - The instability threatens not just shipping lanes but also the overall **security of maritime trade**.
- **Economic Impact on Exports:** The escalation of conflict has already begun to affect Indian exports. For instance, exports fell by **9% in August 2024**, primarily due to a substantial 38% decline in petroleum product exports caused by the **Red Sea crisis**.
 - These exports accounted for a significant portion of India's trade, with Europe receiving 21% of total petroleum product exports.
 - The **tea industry** is particularly vulnerable. With **Iran being one of the largest importers of Indian tea** (India's exports reaching 4.91 million kg in early 2024), concerns about the impact of conflict on shipments have arisen.
- **Rising Shipping Costs:** As shipping routes become longer due to conflict-related diversions, **costs have increased by 15-20%**.
 - This surge in shipping rates has strained the **profit margins of Indian exporters**, especially those dealing in low-end engineering products, textiles, and garments, which are highly sensitive to freight costs.
 - Exporters have reported that rising logistics costs could **negatively impact their overall profitability**, forcing them to reconsider pricing strategies and operational efficiencies.
- **India-Middle East-Europe Economic Corridor (IMEC):** The **IMEC**, during **India's G20 presidency** to create an efficient trade route connecting India, the Gulf, and Europe, aims to reduce dependency on the Suez Canal while also countering **China's Belt and Road Initiative**.
 - However, the ongoing **conflict threatens the progress and viability of this corridor**, impacting bilateral trade between India and its partners as well as regional economic dynamics.

- **Impact on Crude Oil Prices:** The ongoing conflict has led to a spike in **global crude oil prices**, with Brent crude nearing USD 75 a barrel. As **Iran is a major oil producer**, any military escalation could disrupt oil supplies, further pushing prices upward.
 - Higher oil prices may hinder **central banks from cutting interest rates**, as increased **inflation** can complicate economic recovery efforts.
- **Effects on Indian Markets:** India relies heavily on **oil imports (more than 80% of its oil needs coming from abroad)**, making it vulnerable to price fluctuations. A sustained rise in oil prices may lead investors to shift focus from **Indian equities to safer assets like bonds or gold**.
 - The **Indian stock market** has already felt the impact, with major indices like the **Sensex and Nifty** opening lower amid fears of a prolonged conflict.
- **Gold as a Safe Havens:** Gold prices have **reached new highs**, fueled by geopolitical tensions and shifts in investment strategies.
 - In times of uncertainty, investors often flock to **gold as a safe haven**, which could further elevate its price.
- **Logistics Challenges:** Indian exporters are currently navigating a **"wait and watch"** situation. Some exporters are urging the government to invest in developing a reputable Indian shipping line to mitigate the reliance on foreign shipping companies, which often impose high transport charges.

What is the Status of India's Trade with Israel and Iran?

- **India- Israel Trade:**
 - **Significant Growth:** India-Israel trade has doubled over the last five years, growing from approximately USD 5.56 billion in 2018-19 to USD 10.7 billion in 2022-23.
 - **In FY 2023-24, the bilateral trade was USD 6.53 billion** (excluding defence) witnessing a decline due to regional security situation and trade route disruption.
 - **India is Israel's second-largest trading partner in Asia.** During FY 2022-23, Israel was India's 32nd biggest trading partner.
 - **Key Exports:** The primary exports from India to Israel include diesel, diamonds, aviation turbine fuel, and Basmati rice, with **diesel and diamonds alone accounting for 78% of total exports in 2022-23**.

Note:



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- **Imports:** India primarily imports space equipment, diamonds, potassium chloride, and mechanical appliances from Israel.

➤ **India-Iran Trade:**

- **Declining Trade Volumes:** In contrast to the robust trade with Israel, India's trade with Iran has seen a contraction over the past five years, with bilateral trade amounting to just USD 2.33 billion in 2022-23.
 - **In FY 2023-24, the bilateral trade Iran reached USD 1.52 billion** during the first 10 months (April-January).
- **Trade Surplus:** In 2022-23, India enjoyed a trade surplus of approximately USD 1 billion, exporting USD 1.66 billion worth of goods to Iran, primarily agricultural products, while importing USD 0.67 billion.
- **Major Indian exports to Iran:** Basmati rice, tea, sugar, fresh fruits, drugs/pharmaceuticals, soft drinks-other than sharbat, kernels H.P.S, boneless bovine meat, pulses etc.
- **Major Indian imports from Iran:** Saturated methanol, petroleum bitumen, apples, liquified propane, dry dates, inorganic/organic chemicals, almonds, etc.

Reasons for the Iran-Israel Conflict

- **Formation of Israel (1948):** The creation of Israel led to the **Arab-Israeli War**. Although Iran opposed Israel's formation and voted against the Partition Plan in 1947, it recognized Israel in 1950 under the **Pahlavi regime (last Iranian royal dynasty)**, fostering friendly relations characterised by economic and military ties.
 - Despite formal ties, segments of Iranian society remained sympathetic to the Palestinian cause. The **Iranian Revolution in 1979** marked a turning point, ending **Pahlavi rule** and leading to the deterioration of Israel-Iran relations.
- **Religious and Ideological Differences:** Iran, governed by **Shia Islam**, and Israel, a predominantly **Jewish state**, have fundamental religious and ideological differences that **fuel mutual suspicion and animosity**.
- **Post-1979 Revolution Relations:** The Islamic Republic severed diplomatic ties with Israel, labelling it "**Little Satan**."

- Shia clerics in Iran view the **Old City of Jerusalem** as a holy site and oppose its Israeli control. After the revolution, Iran promoted the idea of a **Palestinian state** and branded Israel an "illegal" entity.

- **Israeli-Palestinian Conflict:** Iran supports **Palestinian causes**, backing groups like **Hamas** and **Hezbollah**, which Israel designates as terrorist organisations. Iran's calls for the destruction of Israel exacerbate tensions.

- **Nuclear Program:** Israel perceives **Iran's nuclear ambitions as an existential threat**, fearing potential nuclear weapons development.

- Israel has criticised the **Iran nuclear deal (Joint Comprehensive Plan of Action)** and undertaken covert operations to disrupt Iran's nuclear activities.

- **Proxy Conflicts:** The Iran-Israel conflict has seen significant proxy warfare involving several groups. Iran supports **Hezbollah in Lebanon**, which frequently engages in fights with Israel, and the **Houthis in Yemen**, who have targeted Israeli shipping in the Red Sea.

- Additionally, Iranian-backed Shia militias in Iraq have been retaliating against US forces while also resisting Israeli actions in the region.

- These proxy conflicts enable Iran and Israel to wage indirect warfare, complicating regional stability and raising the risk of direct confrontations amid increasing tensions.

- **Regional Power Dynamics:** The competition between Iran and its allies versus Israel and its allies contributes to ongoing tensions and conflicts in the region.

What are the Global Implications of the Israel-Iran Conflict?

- **Energy Supply and Pricing Dynamics:** Iran, a member of **Organization of the Petroleum Exporting Countries (OPEC)**, produces approximately **3.2 million barrels per day (bpd)**, constituting about **3% of global output**.
 - Despite facing **U.S. sanctions**, Iranian oil exports **have surged, primarily due to demand from China**. The country's strategic importance in the global oil market cannot be overstated.
- **OPEC's Spare Capacity:** **OPEC+** possesses significant spare oil production capacity, with estimates suggesting

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that **Saudi Arabia could increase output by up to 3 million barrels per day** and the UAE by about 1.4 million.

- This capacity provides a **buffer against potential Iranian supply disruptions**, but the situation remains delicate.
- **Long-term Energy Security:** The increasing diversity of global oil supply, particularly due to rising **US production**, has provided a degree of insulation from price shocks associated with conflicts in the Middle East.
 - The US produces approximately **13% of global crude oil and nearly 20% of total liquid production**, which helps stabilise the market amid uncertainties.
- **Potential for Escalation:** Israel has not yet launched attacks on Iranian oil facilities, but the **possibility remains**. If Israel were to strike key installations, such as the **Kharg Island oil port**, it could provoke a significant military response from Iran.
 - Historically, conflicts have escalated quickly in this region, leading to unintended consequences for global supply chains.
- **Geopolitical Considerations:** The US is likely to **exert pressure on Israel to avoid major military escalation**, aiming to maintain regional stability and prevent a broader conflict.
 - This reflects a nuanced approach to foreign policy that seeks to balance support for Israel with global economic interests.
 - Other global players, **especially China, which has significant energy ties with Iran**, will be closely observing developments.
 - The outcome of this conflict may influence **international energy strategies and alliances**, potentially reshaping the geopolitical landscape.

- **Humanitarian Crises:** A wider conflict could lead to **significant refugee flows, impacting Mediterranean countries** like Italy and Greece, and straining international humanitarian resources.

What are the Possible Solutions to De-escalate the Iran-Israel Conflict?

- **Immediate Ceasefire Agreement:** Urging both Iran and Israel to agree to an immediate ceasefire can serve as a foundational step toward reducing tensions and facilitating dialogue.
 - Global powers, particularly the **United states and China**, should leverage their diplomatic influence to press for a ceasefire and promote negotiations between the conflicting parties.
- **Regional Collaboration:** Engaging **Gulf Arab states** in discussions can provide a more comprehensive approach to de-escalation, addressing shared concerns about Iran's influence in the region.
- **Humanitarian Aid and Support:** Increasing **humanitarian assistance** to affected regions, can alleviate suffering and foster goodwill, potentially easing hostilities.
- **International Organisations:** Engaging organisations like the **United Nations** to mediate discussions and facilitate conflict resolution efforts can provide neutral ground for negotiations.
- **Long-term Peace Initiatives:** Regional powers should collaborate to establish a comprehensive security framework that includes confidence-building measures, arms control agreements, and peaceful conflict resolution mechanisms.
 - Addressing underlying issues such as historical grievances, **territorial disputes, and religious extremism** will foster a conducive environment for lasting peace.



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Social Issues

Highlights

- SC Strike Down 'Casteist' Provisions in India's Prison Manuals
- Launch of Tribal Welfare Projects Under DAJGUA, EMRS and PM-JANMAN
- Effectiveness of Fast Track Special Courts
- What are FTSCs?
- Misuse of Section 498A of IPC and Domestic Violence Act 2005
- Resurgence of the Cholera Pandemic
- NAMASTE Scheme
- Samajik Adhikarita Shivirs

SC Strike Down 'Casteist' Provisions in India's Prison Manuals

Why in News?

Recently, **the Supreme Court** ruled that **caste-based division of labour** in prisons is **"unconstitutional,"** marking a **key step towards eliminating** institutional biases in India's correctional system.

- The SC invalidated several provisions in **State prison manuals** that upheld caste distinctions, declaring them a violation of prisoners' **fundamental rights**.

How do Prison Manuals Reinforce Colonial Stereotypes?

- **Colonial Stereotypes in Prisons:**
 - **Colonial Legacy:** The now-repealed **Criminal Tribes Act, 1871**, allowed the British colonial regime to **label certain marginalised communities as "criminal tribes,"** based on the false stereotype that they were "born criminals."
 - **Denotified Tribes:** After the **Act's repeal**, these communities were reclassified as **"denotified tribes."** However, **prison manuals** continued to **categorize them as "habitual offenders"** despite no convictions. **Example:**
 - **West Bengal Jail Code:** The court highlighted **Rule 404 of the West Bengal Jail Code**, which states that a convict overseer may only be appointed as a night guard if they do not belong to tribes considered to have a "strong natural tendency to escape," such as wandering tribes.

- **Andhra Pradesh, Tamil Nadu, and Kerala Prison Manuals:** These manuals define **"habitual criminals"** as those who, by "habit," engage in crimes like robbery, housebreaking, theft, forgery, or extortion—even without prior convictions.
- **Restrictions on Labour:** In Andhra Pradesh, members of "wandering or criminal tribes" are equated with **individuals of "bad or dangerous character"** or those who have escaped custody. As a result, they are **barred from being employed in labor outside prison walls**.

- **Perpetuation of Discrimination:** The court observed that this continued classification **reinforces colonial-era caste-based discrimination**, worsening the social and economic marginalisation of these groups.
- **Examples of Caste Based Discrimination in Prisons:**
 - **Tamil Nadu Prison:** The **segregation of Thevars, Nadars, and Pallars** into separate sections at the **Palayamkottai Central Jail in Tamil Nadu** was a caste-based segregation of barracks.
 - **Rajasthan Prison:** The **Rajasthan Prison Rules, 1951**, assigned latrine duties to the **"Mehtar" caste**, a Scheduled Caste community, while Brahmins or high-caste Hindu prisoners were placed in kitchens.

Denotified, Nomadic, and Semi-Nomadic Tribes

- They are also known as **'Vimukt Jatis'**. These communities are among the most vulnerable and disadvantaged.
- Denotified communities, once labelled as 'born criminals' during British rule under laws like the Criminal Tribes Act, 1871.
 - They were officially **de-notified by the Indian Government in 1952**.

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- A few of these communities which were listed as de-notified were also **nomadic**.
 - Nomadic and semi-nomadic communities are defined as those **who move from one place to another rather than living in one place all the time**.
- Historically, Nomadic Tribes and De-notified Tribes never had access to private land or home ownership.
- While most DNTs are spread across the **Scheduled Castes (SC), Scheduled Tribes (ST) and Other Backward Classes (OBC)** categories, some DNTs are not covered in any of the SC, ST or OBC categories.

How are Fundamental Rights of Prisoners Violated?

- **Caste Classification Limitation:** The Supreme Court emphasised that **caste can only be used as a classification criterion** if it benefits victims of caste discrimination. Eg. Caste based affirmative action (reservation).
 - **Segregating prisoners based on caste** reinforces caste differences and animosity, **should be eliminated**.
 - The prison manuals failed to serve this purpose and **violated Article 14** of the Constitution.
- **Direct and Indirect Discrimination:** The SC highlighted both direct and indirect discrimination against marginalized communities.
 - **Assigning cleaning and sweeping jobs to lower castes**, while allowing higher castes to perform tasks like cooking, is a clear example of **direct discrimination** under **Article 15(1)**.
 - The **allocating certain tasks to these communities** based on traditional roles, rather **than offering them more skilled or dignified work**, results in **indirect discrimination**.
- **Violation of Equality:** Differentiating inmates based on "habit," "custom," "superior mode of living," or "natural tendency to escape" undermines the principles of substantive equality.
 - The SC highlighted prison rules that mandate **food be cooked by a "suitable caste" or assign "menial duties" to certain communities**, classifying these practices as **untouchability**, which is prohibited under **Article 17**.

- **Right to Life and Dignity:** The court underscored that prison rules restricting the reformation of **marginalised prisoners violate their right to life and deprive** them of dignity and equal treatment, further marginalizing them.

Constitutional and Legal provisions Against Discrimination

- **Constitutional Provisions:**
 - **Equality Before Law:** According to **Article 14** no person shall be denied treatment of **equality before the law or the equal protection of the laws** within the territory of India.
 - **Prohibition of Discrimination:** **Article 15** of the Constitution of India states that the State shall **not discriminate against any citizen** on grounds only of religion, race, caste, sex, place of birth or any of them.
 - **Abolition of Untouchability:** **Article 17** of the constitution abolishes **Untouchability**.
- **Legal Provisions:**
 - **The Protection of Civil Rights Act, 1955:** The act was **enacted to enforce Article 17 of the Constitution of India**, which abolished the practice of untouchability.
 - **The SCs and the STs (Prevention of Atrocities) Act, 1989:** It was enacted to **safeguard the members of SCs and STs from caste-based discrimination** and violence.

What were the Directives Issued by SC?

- **Amend Prison Manuals:** All States and Union Territories were ordered to **revise their prison manuals and rules within three months** to eliminate discriminatory practices.
- **Removal of Caste References:** The court mandated the **removal of the "caste column"** and any references to caste from the registers of undertrials and convicts maintained in prisons.
- **Issues in Model Prison Manual and Act:** The Union government's **Model Prison Manual, 2016**, and the **Model Prisons and Correctional Services Act, 2023**, were flagged for shortcomings such as caste discrimination.
 - The **2016 manual** was particularly criticized for its **vague definition of "habitual offender"**, allowing States to perpetuate stereotypes against denotified tribes.

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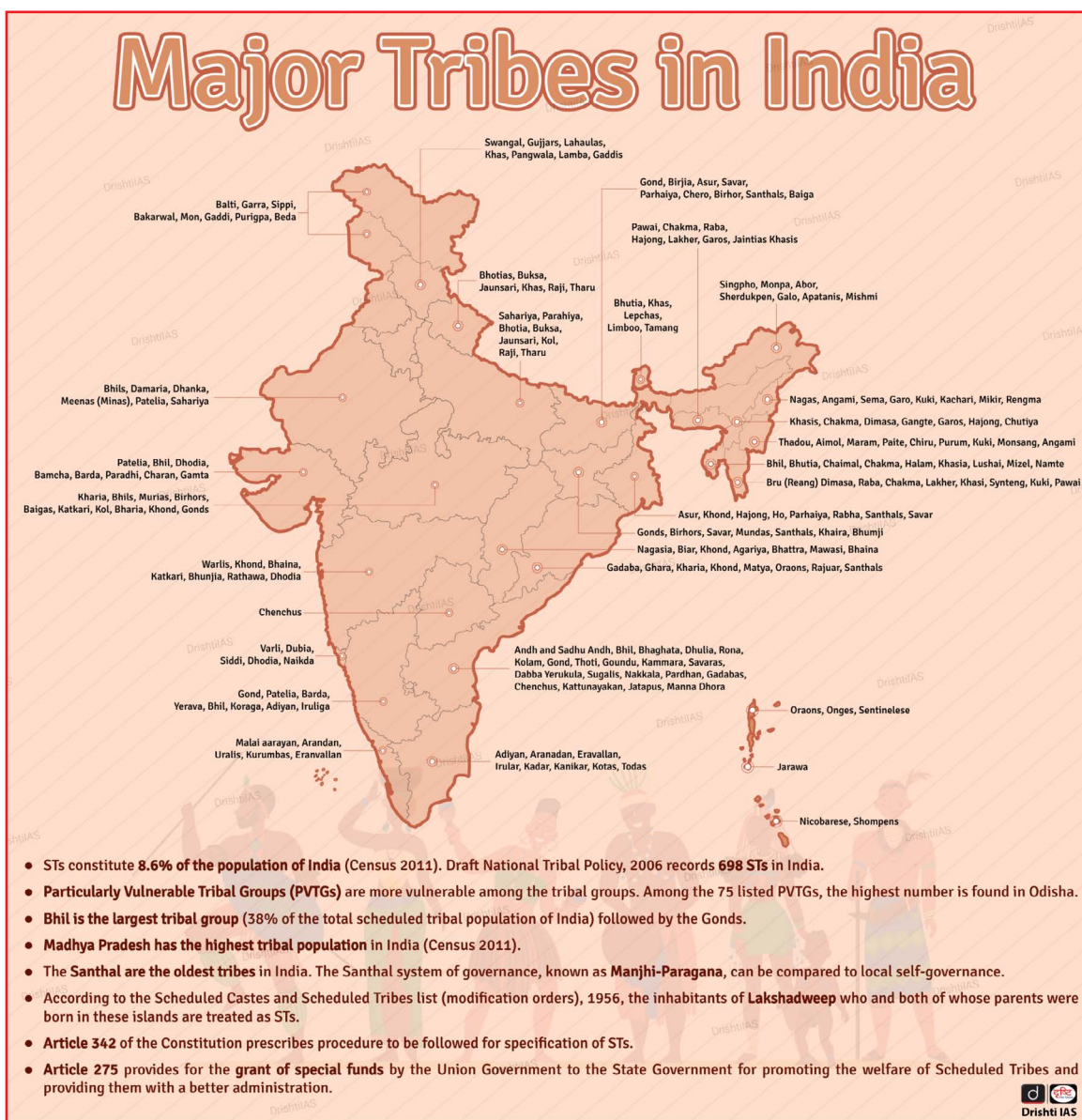
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- The court ordered that reforms be made to both the 2016 and 2023 Act within three months.
- **Compliance Monitoring:** District legal services authorities and boards of visitors were tasked with conducting regular inspections to ensure compliance with these directives.
- **Police Instructions:** Police authorities were instructed **not to arbitrarily arrest members of denotified tribes**, ensuring adherence to guidelines established in previous Supreme Court rulings.

Launch of Tribal Welfare Projects Under DAJGUA, EMRS and PM-JANMAN

Why in News?

Recently, the Prime Minister inaugurated and laid the foundation stone for projects worth over Rs 80,000 crore in Jharkhand, including the launch of Dharti Aaba Janjatiya Gram Utkarsh Abhiyan (DAJGUA).



Note:

- He also inaugurated **40 Eklavya Model Residential Schools (EMRS)** and laid the foundation stone for **25 more**, along with several projects under **the Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN)**.

What is Dharti Aaba Janjatiya Gram Utkarsh Abhiyan?

- Originally named the **PM Janjatiya Unnat Gram Abhiyan (PM-JUGA)**, is an umbrella scheme to implement existing schemes across 63,000 Scheduled Tribe-majority villages.
 - Dharti Aaba refers to **Birsa Munda, a 19th-century tribal leader and anti-colonial icon** from Jharkhand.
- The initiative aims to **address critical gaps in social infrastructure, health, education, and livelihood** through 25 interventions implemented by various 17 Ministries and Departments of the Government of India.

What are Eklavya Model Residential Schools (EMRS)?

- EMRS is a scheme for making **model residential schools for Scheduled Tribes (STs) across India**. It started in the year **1997-98**. Its nodal ministry is the **Ministry of Tribal Affairs**.
 - These schools are being developed to **provide quality education to tribal students**, focusing on academic as well as overall development.
 - The EMR Schools generally follow the **CBSE curriculum**.
- The scheme aims to **build schools similar to Jawahar Navodaya Vidyalayas and Kendriya Vidyalayas**, with a focus on **state-of-the-art facilities for preserving local art and culture**, as well as providing training in sports and skill development.

What is Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM-JANMAN)?

- PM-JANMAN was launched on **15th November 2023**, on **Janjatiya Gaurav Diwas**, to improve the socio-economic welfare of PVTGs.
- It is **implemented by the Ministry of Tribal Affairs**, in collaboration with the State governments and the **PVTGs communities**.
 - It encompasses various sectors, including safe housing under the **PM-Awas Scheme**, access

to **clean drinking water**, improved **healthcare, education, nutrition**, road and telecommunications connectivity, as well as opportunities for sustainable livelihoods.

- The plan also includes the establishment of **Van Dhan Vikas Kendras** for **trading in forest produce**, off-grid solar power systems for 1 lakh households, and solar street lights.
- The scheme is expected to **enhance the quality of life and well-being of the PVTGs**, by addressing their multiple and intersecting forms of **discrimination and exclusion**, and by recognizing and valuing their unique and valuable contribution to national and global development.

Effectiveness of Fast Track Special Courts

Why in News?

India's **Fast-Track Courts**, designed to expedite serious criminal cases, are facing scrutiny over their effectiveness. Despite an initial surge, the number of operational courts has declined.

Note:

➤ **Trends in the Number of Fast-Track Courts:**

- Between **2018 and 2020**, India saw a significant **rise in the number of fast-track courts**, from 699 to 907, largely in response to public outcry over delays in high-profile cases.
- However, this progress has **slowed since 2020**, with the number of functional courts dropping to 832 in 2023, reflecting the challenges states face in maintaining these courts due to financial and administrative constraints.

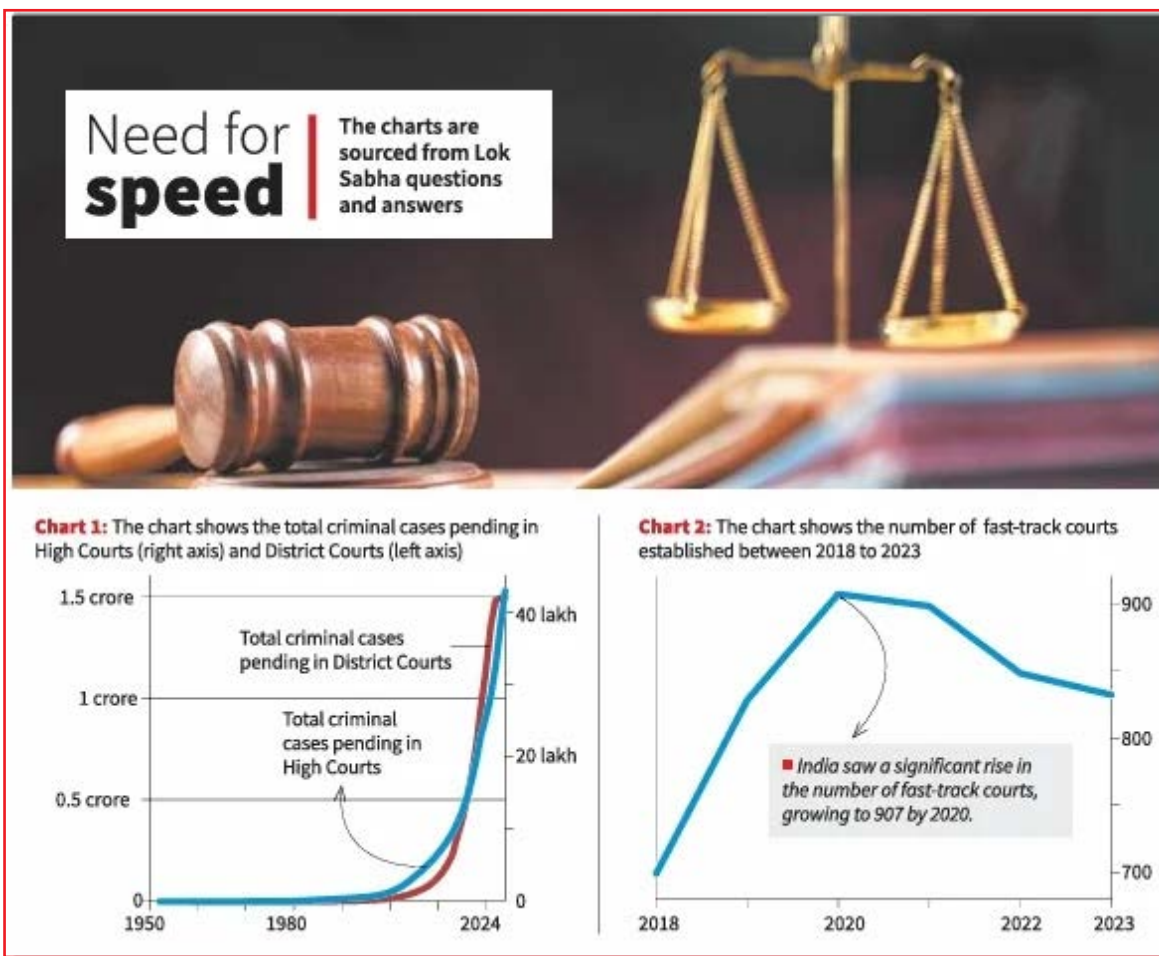
➤ **Disparities in Fast-Track Court Availability:**

- While states such as **Uttar Pradesh, Maharashtra, and Tamil Nadu** have maintained a **high number of operational fast-track courts**, others have far fewer or, in some cases, none.
- These disparities are a reflection of local resource limitations, varying levels of prioritization, and differing administrative capabilities.

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What are FTSCs?

➤ About:

- FTSCs are judicial bodies established in India to **expedite the trial process** for cases pertaining to **sexual offenses**, particularly those involving rape and violations under the **Protection of Children from Sexual Offences Act (POCSO Act)**.

➤ Establishment:

- The Central Government enacted the **Criminal Law (Amendment) Act in 2018**, introducing stringent penalties, including the death penalty for perpetrators of rape. Following this, FTSCs were instituted to facilitate the swift adjudication of such cases.
- The initiative to establish FTSCs was **formalized in August 2019** as a **Centrally Sponsored Scheme**, in accordance with directives from the Supreme Court of India.

➤ Reasons for Establishing FTSCs:

- The FTSCs was established in response to the alarming rise in sexual offenses and the prolonged duration of trials in conventional courts, which led to significant delays in delivering justice to victims.

➤ Extension of the FTSCs:

- The FTSCs Scheme, originally launched for one year in 2019, has been extended by the Union Cabinet for an additional three years, from 2023 to 2026.

Note:

What is the POCSO Act?

- **About:** The law aims to address offences of sexual exploitation and sexual abuse of children. The Act defines a child as any person below the age of 18 years.
 - It was enacted in consequence to India's ratification of the [UN Convention on the Rights of the Child](#) in 1992.
- **Features:**
 - **Gender-Neutral Nature:** The Act recognises that **both girls and boys can be victims of sexual abuse** and that such abuse is a crime regardless of the gender of the victim.
 - **Confidentiality of Victim's Identity:** Section 23 of the POCSO Act, 2012 mandates that the **identity of child victims must be kept confidential**.
 - Media reports cannot disclose any details that could reveal the victim's identity, including their name, address, and family information.
 - **Mandatory Reporting of Child Abuse Cases:** **Sections 19 to 22** compel individuals who have knowledge or reasonable **suspicion of such offenses to report them to concerned authorities**.

What are the Challenges Faced by FTSCs?

- **Infrastructure Deficiencies:** Fast-track courts often operate in inadequately equipped facilities, **lacking necessary resources such as modern technology and sufficient space** to handle case loads efficiently.
- **Judicial Overload:** Despite their purpose, fast-track courts frequently experience **overwhelming case volumes, leading to delays** that contradict their foundational objective of expedited justice.
- **Inconsistent Implementation:** The establishment and functioning of fast-track courts can vary significantly across states, resulting in **uneven access to justice and inconsistent application of legal standards**.
- **Quality of Judicial Personnel:** The recruitment and training of judges and support staff may not always align with the specialized needs of fast-track courts, impacting the quality of judicial decision-making.
- **Limited Public Awareness:** There exists a **general lack of awareness among the populace regarding the functions and processes** of fast-track courts, which can hinder their effectiveness and accessibility.

Misuse of Section 498A of IPC and Domestic Violence Act 2005

Why in News?

Recently, [the Supreme Court](#) observed that [Section 498A Indian Penal Code](#) (now [Bharatiya Nyaya Sanhita](#)) and [Domestic Violence Act 2005](#) are among the most abused laws.

What is Section 498A Indian Penal Code?

- **Section 498A of the Indian Penal Code (IPC)** deals with the criminal offence of cruelty against a married woman by her husband or his relatives. The section was introduced in 1983.
 - **Section 84 of [Bharatiya Nyaya Sanhita, 2023 \(BNS\)](#)** deals with the same provision.
- **Punishment:**
 - The offender can face up to **three years in jail** and may also be **liable to pay a fine**.
- **Definition of cruelty:**
 - **Cruelty** is defined as any willful conduct that is likely to **cause grave injury or danger to the woman's life, limb, or health, or drive her to commit suicide**.
- **Filing a complaint:**
 - **A complaint can be filed by the aggrieved woman**, or by any person related to her by blood, marriage, or adoption. If there are no such relatives, a public servant notified by the state government can file the complaint.
- **Time limit:** A complaint must be filed **within three years of the alleged incident**.
- **Cognizability and non-bailability:** The offence is [cognizable and non-bailable](#), which means that **immediate custody of the accused is possible**.

What is the Domestic Violence Act 2005?

- **Objective:**
 - The Protection of Women from Domestic Violence Act, 2005, was enacted to **provide a comprehensive legal framework for the protection of women against domestic violence**, recognizing violence in both physical and psychological forms within familial settings.

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Domestic Violence Against Women

Domestic violence refers to any form of abuse, whether physical, emotional, sexual, or economic, within the confines of the home, family or domestic unit.

National Family Health Survey-5 (NFHS), 2019-2021

- 29.3% of married women experienced domestic/sexual violence
- 3.1% of pregnant women suffered physical violence during pregnancy
- 87% of married women who are victims of marital violence do not seek help



Legal Frameworks in India

Protection of Women from Domestic Violence Act, 2005 (PWDVA)	<ul style="list-style-type: none"> ■ Covers physical, emotional, sexual, and economic abuse ■ Provides various orders for protection, residence, and relief
Indian Penal Code, 1860	<ul style="list-style-type: none"> ■ Section 498A deals with cruelty by a husband or his relatives ■ Criminalises acts of cruelty, harassment, or torture
Dowry Prohibition Act, 1961	<ul style="list-style-type: none"> ■ Makes giving or receiving dowry a crime
Criminal Law (Amendment) Act, 2013	<ul style="list-style-type: none"> ■ Section 354A amended the IPC to include new offenses related to sexual harassment in cases of domestic violence
National Commission for Women Act, 1990	<ul style="list-style-type: none"> ■ Safeguards women's rights and plays a key role in addressing domestic violence
The Prohibition of Child Marriage Act, 2006	<ul style="list-style-type: none"> ■ Prevent child marriages and prohibit domestic violence against child brides.

Global Initiatives

- **Convention on the Elimination of All Forms of Discrimination against Women (CEDAW):** Adopted in 1979 by the UN General Assembly
 - Eliminating discrimination against women in all areas of life
- **UN Declaration on the Elimination of Violence against Women (DEVAW):** First international instrument explicitly addressing violence against women
 - Provides a framework for national and international action
- **Safe Cities and Safe Public Spaces:** Flagship program by UN Women
 - Preventing and responding to sexual harassment and other forms of violence in public spaces
- **Beijing Platform for Action (1995):** Identifies specific actions for governments to take to prevent and respond to violence
- **SDG 5 (Gender Equality):** End all forms of discrimination against all women and girls everywhere



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➤ Definition of Domestic Violence:

- The Act broadly defines domestic violence to include **physical, emotional, sexual, verbal, and economic abuse**.
- It covers any **harm or injury to the well-being of a woman** or threat thereof, including coercion, harassment, and denial of resources or entitlements.

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- **Scope and Coverage:**
 - It covers all women in domestic relationships, including wives, mothers, sisters, daughters, and live-in partners.
 - It protects women from violence by husbands, male partners, relatives, or other members of the household.
- **Right to Residence:**
 - The Act provides women the right to **reside in the shared household**, regardless of their legal ownership or title to the property.
- **Protection Orders:**
 - Victims of domestic violence can approach the court for protection orders, which **prevent the abuser from committing further acts of violence**, entering the victim's place of work or residence, or engaging in any form of communication or contact with the victim.
- **Monetary Relief and Compensation:**
 - The Act enables women to claim **financial compensation for the injuries suffered**, including medical expenses, loss of earnings, or any other financial loss resulting from domestic violence. Courts can also direct the payment of maintenance to the victim.
- **Counselling and Support Services:**
 - It mandates the provision of support services, including **legal aid, counselling, medical facilities, and shelter homes** (under schemes like **National Legal Services Authority**) for women seeking protection under the Act.
- **Speedy Judicial Process:**
 - The Act ensures a **time-bound process for the resolution of domestic violence cases**.
 - Magistrates are required to dispose of complaints within 60 days, ensuring timely intervention and relief for the victim.
- **Role of Non-Governmental Organisations (NGOs):**
 - Recognising the crucial role of civil society, the **Act allows NGOs and women's organisations to assist in filing complaints** and providing protection and support to victims.

What are the Factors Contributing to Domestic Violence?

- **Patriarchal Social Structure:** Deep-rooted patriarchal

norms perpetuate gender inequality, reinforcing male dominance and control over women. This leads to the **normalisation of violence** as a means to assert authority within households.

- **Cultural and Societal Norms:** In many societies, **domestic violence is tacitly accepted or overlooked**, particularly when it occurs in private spaces.
 - **Cultural beliefs often discourage women from speaking out** or seeking help, reinforcing the cycle of abuse.
- **Economic Dependency:** Financial dependency on male family members often forces women to endure domestic violence. The **lack of economic autonomy** limits their ability to leave abusive relationships or seek legal recourse.
- **Substance Abuse:** Alcohol and drug abuse are significant contributors to domestic violence.
 - **Intoxicated individuals may display aggressive behaviour, leading to physical or emotional abuse within families.**
- **Lack of Education and Awareness:** Limited education and awareness about legal rights and support mechanisms contribute to the perpetuation of domestic violence.
- **Psychological Factors:** Issues such as **anger management problems, low self-esteem, or unresolved trauma** may cause individuals to engage in **violent behaviour** against their family members. Abusers may also justify their actions through distorted perceptions of control and entitlement.
- **Dowry and Marital Disputes:** Dowry-related violence remains a significant factor in domestic abuse. Disputes over **dowry demands or dissatisfaction with the marriage** often lead to emotional or physical violence against women.
- **Intergenerational Transmission of Violence:** Children who witness domestic violence in their households are more likely to **replicate abusive behaviours in their own relationships** as adults, perpetuating a cycle of violence across generations.
- **Weak Law Enforcement and Judicial Delays:** Ineffective law enforcement, delayed justice, and lack of stringent penalties for perpetrators contribute to the recurrence of domestic violence.
 - Victims may feel discouraged from seeking legal protection due to fear of retaliation or mistrust in the system.

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How are these Legal Measures Misused?

- **False Allegations for Personal Gain:** Both the Domestic Violence Act, 2005, and Section 498A are sometimes misused by **filing false complaints to harass husbands and their families.**
 - These provisions are exploited as **tools for personal vendetta or to gain leverage in matrimonial disputes**, including property settlements, maintenance claims, or custody battles.
- **Coercion for Financial Settlements:** In several instances, false cases are used to coerce husbands and their relatives into making large financial settlements or paying alimony.
 - The **fear of arrest or prolonged legal battles often compels the accused to concede to unreasonable demands.**
- **Immediate Arrest and Lack of Preliminary Investigation:** Section 498A is a non-bailable and cognizable offence, **leading to immediate arrests without the need for prior investigation.**
 - This provision has been exploited to pressurize the accused, resulting in wrongful detentions and damaging reputations before guilt is even established.
- **Social and Psychological Damage to the Accused:** The stigma associated with domestic violence allegations can cause **irreparable harm to the social standing, mental health, and professional life of the accused.**
 - Even if acquitted, the accused may suffer long-term consequences due to the negative perception attached to the charges.
- **Judicial Observations on Misuse:** Courts in various judgments have acknowledged the misuse of Section 498A and the Domestic Violence Act.
 - In response, the **judiciary has called for reforms**, including the need for proper investigation before arrests and imposing penalties for filing frivolous or malicious cases.

Resurgence of the Cholera Pandemic

Why in News?

Recently, **Cholera**, a preventable and treatable disease, has experienced a resurgence, leading to approximately 4,000 deaths in 2023, according to the **World Health Organization (WHO).**

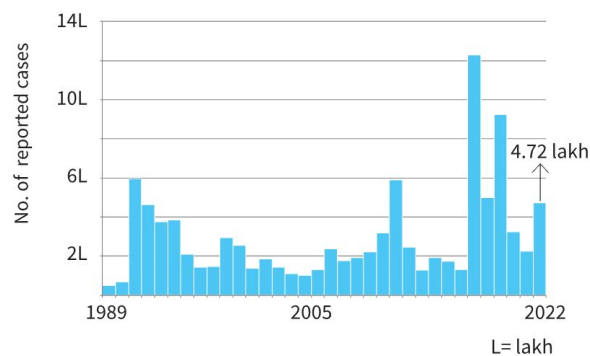
What is Cholera?

- **About:**
 - Cholera, a **water-borne disease** primarily caused by the **bacteria *Vibrio cholerae***.
 - It is an **acute diarrheal illness** caused by infection of the **intestine**.
 - The infection is often mild or without symptoms, but sometimes can be severe.
- **Symptoms:**
 - It includes severe watery diarrhoea, vomiting, leg cramps, and weakness, and can lead to death through dehydration if untreated.
- **Transmission:**
 - A person may get cholera by **drinking water or eating food contaminated** with the cholera bacterium.
 - The disease can **spread rapidly** in areas with inadequate treatment of sewage and drinking water.
 - Vulnerable populations, particularly malnourished children and individuals living with **Human Immunodeficiency Virus (HIV)/Acquired Immunodeficiency Syndrome (AIDS)** are at a higher risk of mortality.
- **Vaccine:**
 - Currently there are **3 WHO pre-qualified Oral Cholera Vaccines (OCV)**- Dukoral, Shanchol, and Euvichol-Plus. All three vaccines require two doses for full protection.

What is the Global Distribution and Burden of Cholera?

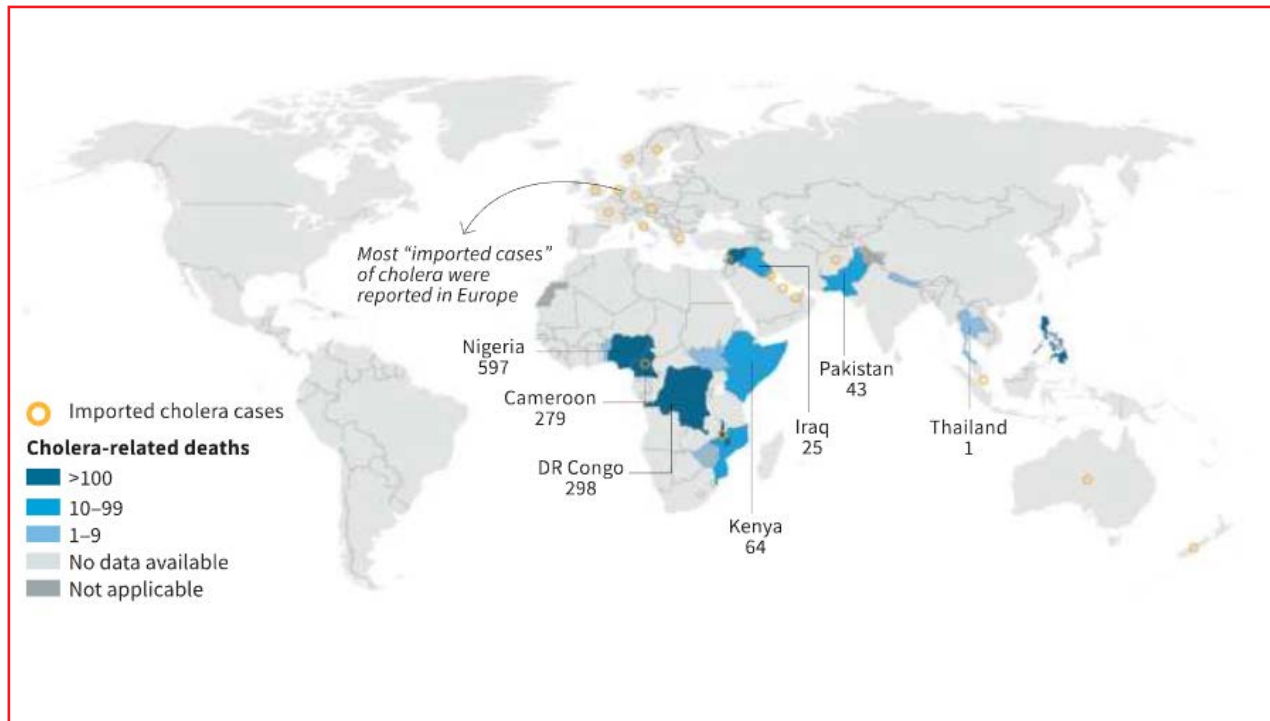
- **Global Burden:**
 - The global cholera burden worsened between 2022 and 2024, with the WHO reporting significant increases in both cases and deaths across various regions.

Chart 1 | The chart shows year-wise reported cholera cases between 1989 and 2022.



Note:

- **22 countries** reported active outbreaks and **2,400 deaths** had been recorded globally **by August 2024**.
- **Global Cholera Distribution:**
 - Cholera primarily affects countries in **Africa** and **Asia**, with occasional **“imported cases”** in Europe.
 - WHO reported that in **2023**, global cholera cases increased by **13%**, and deaths rose by **17%** compared to 2022, resulting in **4,000 fatalities**.
 - By 2024, **22 countries** were experiencing ongoing cholera outbreaks.
 - In **2022**, cholera cases were more evenly spread across Africa compared to 2021.
 - The geographic distribution of cholera has **shifted**, with **Asia showing a decline but cases in Africa doubling**, largely due to **inequities in healthcare access**.
 - **Asia** also experienced a rise in cholera cases in **2022**.
 - As of **August 2024**, **India reported 3,805 cases of cholera** in a multi-country outbreak that also impacted Myanmar, Bangladesh, and Nepal.



What are the Key Factors Contributing to Cholera Resurgence?

- **Climate Change:** It has a profound effect on water quality and availability. Extreme weather events, such as **floods** and intense **monsoonal rains**, can lead to the **overflow of sewage** into water sources, while droughts and **heatwaves** concentrate cholera bacteria in diminishing water supplies. These changes significantly exacerbate the spread of cholera.
- **Lack of Access to Clean Water and Sanitation:** According to **United Nations Children's Fund (UNICEF)**, in the year 2019, approximately **2 billion people lack access to safely managed drinking water**, and around **3.6 billion lack adequate sanitation facilities**.
 - This leads to cholera outbreaks, as contaminated water and poor sanitation create fertile conditions for the disease to thrive.
- **Vibrio Pathogens and Microplastics:** Research from the University of Florida in June 2023 reveals that **Vibrio pathogens** can adhere to **microplastics**, allowing them to **potentially adapt to this environment** in the open ocean.

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- **Conflict and Displacement:** Regions affected by conflict face major disruptions in health services and sanitation, increasing vulnerability to cholera.
 - Displaced individuals are especially at risk due to overcrowded living conditions and inadequate access to clean water.
- **Vaccine Shortage and Inadequate Health Infrastructure:** In 2023, **only 36 million cholera vaccine doses were produced**, half the demand from 14 countries. Due to the shortage, a **single-dose regimen replaced the standard two doses**.
 - Currently, there is **only one manufacturer supplying OCVs worldwide** and a shortage of around 40 million doses annually.
 - Also, the **limited health infrastructure in affected areas** exacerbates the crisis, hindering effective response and control measures.

Initiatives to Control Cholera

- **Global Task Force for Cholera Control (GTFCC):** **GTFCC** was launched by the WHO, and has created a **Global Roadmap for Ending Cholera by 2030**.
 - This roadmap emphasises **crucial initiatives such as** monitoring disease transmission, engaging communities in hygiene and sanitation education, improving access to sanitation facilities in high-risk areas, and **implementing OCV campaigns** in cholera hotspots.
- **Collaborative Efforts with Health Partners:** In May 2023, seven countries and ten health partners, including **International Federation of Red Cross and Red Crescent Societies (IFRC)** and **UNICEF**, convened during the **World Health Assembly (WHA)** to reaffirm their commitment to combating cholera.
 - They called for immediate action and sustainable funding to enhance **Water, Sanitation, and Hygiene (WASH)** services, strengthen disease surveillance in high-risk areas, and boost local production of oral cholera vaccines.

NAMASTE Scheme

Why in News?

Recent government data as part of the **NAMASTE scheme**, from over 3,000 **Urban Local Bodies (ULBs)**, reveals that **92% of the 38,000 manual scavengers and workers** involved in hazardous sewer and septic tank

cleaning across India's cities belong to **Scheduled Caste (SC), Scheduled Tribe (ST)**, or **other backward class (OBC)** communities.

- This highlights **caste-based occupational segregation** and the dangers these manual scavengers face.

Definitions

- **Manual Scavenger:** A manual scavenger is anyone employed to manually clean, carry, or handle human excreta from insanitary latrines, open drains, pits, or railway tracks, before it fully decomposes, as per the **Prohibition of Employment as Manual Scavengers and their Rehabilitation Act (PEMSR), 2013**.
- **Hazardous Cleaning:** Refers to the manual cleaning of sewers or septic tanks without adequate protective gear.
- **Sanitation Workers/Safai Karamcharis:** Individuals employed in sanitation work, including waste pickers and those cleaning sewers/septic tanks, but excluding domestic workers.
- **Sewer and Septic Tank Workers (SSWs):** Workers engaged in the hazardous cleaning of sewers and septic tanks.
- **Sewer Entry Professionals (SEPs):** Trained sanitation workers who clean sewers/septic tanks with **permission and proper safety equipment** are identified as SEPs.

What is the NAMASTE Scheme?

- **About:** The **National Action for Mechanised Sanitation Ecosystem (NAMASTE)** scheme, a joint initiative of the **Ministry of Social Justice and Empowerment (MoSJE)** and the **Ministry of Housing and Urban Affairs (MoHUA)**, focusing on eliminating manual scavenging and promoting sanitation worker safety.
 - NAMASTE, with an outlay of Rs. 349.70 crore, aims to cover all 4800+ ULBs by 2025-26, replacing the earlier **Self-Employment Scheme for Rehabilitation of Manual Scavengers (SRMS)**.
 - As per the new modified scheme, **profiling of Sewer/Septic Tanks Workers (SSWs)** engaged by ULB would be undertaken.
 - These SSWs are proposed to receive occupational safety training, personal protective equipment (PPE) kits, and health insurance **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)**.

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- **Goal of NAMASTE:** The goal is to profile SSWs engaged by ULB, provide safety training and equipment, and offer capital subsidies to turn them into “**sanipreneurs**” or **sanitation entrepreneurs**, promoting self-employment and formal employment opportunities.
 - A key objective is to **eliminate fatalities in sanitation work** and improve the living conditions and health of sanitation workers.
 - Between **2019 and 2023, at least 377 people** across the country have **died from hazardous cleaning of sewers and septic tanks**, according to government data tabled in Parliament.
- **Progress of Profiling:** As of September 2024, 3,326 ULBs have profiled approximately 38,000 SSWs. 283 ULBs reported zero SSWs, while 2,364 reported fewer than 10 SSWs.
 - **State-Level Efforts:** 12 states and Union Territories, including Kerala and Rajasthan, have completed the profiling process.
 - 17 states, such as Andhra Pradesh and Uttar Pradesh, are still in the process.
 - Some states like Tamil Nadu and Odisha are running their own separate programmes and not reporting to the Centre.
 - The Ministry of Housing and Urban Affairs estimates around **100,000 SSWs are currently employed in India’s urban areas** based on urban population statistics and decadal growth rates.

What is Manual Scavenging?

- **About:** Manual scavenging (MS) refers to the practice of removing human excreta by hand from sewers or septic tanks. Although banned in India under the **PEMSR Act, 2013** the practice persists.
 - The Act prohibits employing anyone for **cleaning or handling human excreta and broadens** the definition to include cleaning septic tanks, ditches, or railway tracks.
 - It recognizes the practice as “**dehumanising**” and seeks to address the historical injustices faced by manual scavengers.
- **Efforts to Reduce MS:**
 - **Constitutional Safeguards:**
 - **Article 14:** Guarantees **equal protection of the law** for all citizens, ensuring **manual scavengers are not subjected to discriminatory practices** based on caste or occupation.

- **Article 16:** Ensures **equal employment opportunities** for all, **prohibiting caste-based discrimination** in government jobs, promoting the economic upliftment of manual scavengers.
- **Article 17:** Abolishes **untouchability** and punishes those enforcing it. This protects **manual scavengers from caste-based exclusion** and stigmatisation.
- **Article 21:** Ensures the **right to live with dignity**, offering manual scavengers the legal grounds to demand protection from dehumanising work.
- **Article 23:** Protects against **forced labour**, ensuring manual scavengers cannot be coerced into working under harsh conditions without proper wages or safety standards.
- **Legal Framework:**
 - **Prohibition of Employment as Manual Scavengers and Their Rehabilitation Act, 2013:** The Act prohibits manual scavenging, including the construction of insanitary latrines, and mandates the demolition or conversion of such latrines into sanitary ones.
 - It also provides for the identification and rehabilitation of manual scavengers through skill development, financial assistance, and alternative employment.
 - **SC/ST (Prevention of Atrocities) Act, 1989:** It criminalises the employment of scheduled castes in manual scavenging.
- **Government Initiatives and Schemes:**
 - **Self Employment Scheme for Rehabilitation of Manual Scavengers (SESRM):** This scheme provides assistance to identified manual scavengers to help them transition into self-employment.
 - **National Safai Karamcharis Finance and Development Corporation (NSKFDC):** NSKFDC provides concessional loans and financial support for the socio-economic upliftment of Safai Karamcharis and their families.
 - **Rashtriya Garima Abhiyaan:** It is a national campaign to **eradicate the practice of manual scavenging and** rehabilitate the manual scavengers.
 - **Swachh Bharat Mission 2.0:** Encourages ULBs to ensure the safety of sanitation workers, focusing on mechanisation and the promotion of protective measures.

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- **SafaiMitra Suraksha Challenge (SSC)** launched as part of the **Swachh Bharat Mission**, this initiative encourages cities to mechanise sewer cleaning and prevent fatalities by reducing manual intervention.
 - **The Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM):** Guideline suggests that at least 10% of **self-help groups (SHGs)** formed should be of persons engaged in vulnerable occupations, including sanitation workers.
 - These SHGs would then be empowered to run their own enterprises.

How does Caste-Based Occupation Perpetuate Manual Scavenging in India?

- **Caste Hierarchy and Social Discrimination:** Dalits are at the bottom of the social hierarchy in the Indian varna system. They are often associated with tasks deemed “polluting,” such as handling human excrement.
 - This caste-based discrimination not only ostracises them from mainstream society but also **subjects them to exploitative labour practices**.
 - The stigma attached to their work exacerbates their marginalisation, as they face discrimination from both upper castes and, at times, within their communities.
- **Jajmani System and Inherited Occupations:** The traditional **jajmani system**, which reinforces inherited caste-based roles, plays a vital role in perpetuating manual scavenging.
 - This inheritance **normalises manual scavenging** within their communities, making it difficult to escape these occupations.
- **Lack of Alternatives:** Many Dalits in manual scavenging continue this degrading work due to a lack of **viable alternatives**. Families depend on meagre food handouts, as **caste discrimination limits job opportunities**, perpetuating poverty and exclusion.
- **Structural Barriers and Discrimination:** Legal frameworks like the **Protection of Civil Rights Act, 1955**, aim to prohibit caste-based discrimination, but enforcement is weak. Despite the introduction of the **PEMSR Act, 2013**, the **conviction rate remains very low, further exacerbating the problem**.
 - **Manual scavengers often lack access to basic rights** and services such as water, education, and healthcare, reinforcing the caste nature of this occupation and hindering their ability to pursue alternative livelihoods.

- **Discrimination in Education:** Children from manual scavenging families face discrimination in schools, leading to **high dropout rates**. They are often treated as **outcasts, subjected to bullying**, and forced into labour themselves.
 - This cycle of discrimination limits educational opportunities, further ensuring that the next generation remains trapped in caste-based occupations.

What are the Challenges of Abolition and Rehabilitation of Manual Scavenging in India?

- **Lack of Understanding and Awareness:** The PEMSR Act, 2013 clearly defines manual scavenging. However, many government officials are **unaware of who qualifies as a manual scavenger**.
 - Often, these individuals work under the titles of scavengers or sweepers, leading to concealed and inaccurate data collection.
- **Inefficiency in Demolishing Insanitary Latrines:** The root cause of manual scavenging are **insanitary latrines that remain unaddressed** due to slow and ineffective administrative actions.
 - According to **Socio Economic and Caste Census (SECC) 2011**, India has **over a million of insanitary latrines**, many of which still dispose of **night soil** (term for human waste that was collected from areas without sewer systems or septic tanks) into **open drains and are manually serviced**.
 - The mandated conversion or demolition of these latrines has not been effectively implemented across states.
- **Inadequate Sewage and Drainage Systems:** Despite advancements in other sectors, **wastewater management and drainage systems in India remain underdeveloped**. Poor planning and insufficient investment in modern sewage systems perpetuate the need for manual scavenging.
- **Failure to Enforce Legal Prohibitions:** The Indian government has been ineffective in penalising those who continue to employ manual scavengers illegally.
 - Laws like the **Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993**, and PEMSR Act, 2013, are routinely ignored, allowing the practice to persist.
- **Barriers in Accessing the Criminal Justice System:** Dalits and marginalised communities face significant

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barriers to justice, as police often ignore or refuse to investigate crimes against manual scavengers, particularly when perpetrators are from dominant castes.

- **This systemic bias undermines legal protections** and discourages victims from seeking redress.
- **Harassment from Employers and Community:** Manual scavengers seeking to leave the occupation often **encounter threats, physical violence, and social exclusion.**
 - Community pressure and retaliation from dominant caste groups keep individuals trapped in exploitative conditions, making it difficult for them to abandon manual scavenging.
- **Scarcity of Alternative Employment Opportunities:** Manual scavengers rely on daily donations for survival, making it difficult to leave the occupation without **immediate access to alternative livelihoods.**
 - Social and economic barriers, including caste and gender discrimination, limit **their ability to secure new employment. Corruption further exacerbates these challenges,** with bribes often required to obtain reserved government positions.
- **Inadequate Data:** Government surveys have been ineffective in accurately identifying and documenting the number of manual scavengers.
 - Discrepancies in reports from various sources highlight a significant underestimation of the problem. Without comprehensive and regular surveys, targeted interventions remain challenging.

Samajik Adhikarita Shivirs

Why in News?

Recently, a **Samajik Adhikarita Shivar** was organised at 75 locations across India for distribution of aids and assistive devices to over 9000 pre-identified **Divyangjan** beneficiaries under the **ADIP (Assistance to Disabled Persons) Scheme**.

What is Samajik Adhikarita Shivar?

- **About:**
 - The **Samajik Adhikarita Shivar (Social Empowerment Camps)** are a series of **distribution camps** organised to provide **assistive devices** to **people with disabilities and senior citizens**. It has been in operation **since 1981**.

➤ Organisers:

- These are organised by the **Department of Empowerment of Persons with Disabilities (DEPWD)** under the **Ministry of Social Justice and Empowerment** in collaboration with **ALIMCO (Artificial Limbs Manufacturing Corporation)** and the **District Administration**.

➤ Definition:

- The scheme follows the definitions of various types of disabilities as given in the **Right of Persons with Disabilities Act 2016**.

➤ Grants:

- Grants-in-aid are released to various implementing agencies (**ALIMCO**, National Institutes, Composite Regional Centres, District Disability Rehabilitation Centres, State Handicapped Development Corporations, **Non-governmental Organizations (NGOs)** etc.) for purchase and distribution of aids and assistive devices under **ADIP Scheme**.

➤ Scheme of Assistance to Persons with Disabilities for Purchase/Fitting of Aids /Appliances (ADIP Scheme)

- The ADIP Scheme **assists persons with disabilities** by **providing modern aids and appliances for rehabilitation**.
- It includes **support for corrective surgeries** before providing assistive devices.
- It was last updated in April 2024, continuing March 2026.

Other Related Initiatives for PwD:

- **Accessible India Campaign: Creation of Accessible Environment for PwDs**
- **DeenDayal Disabled Rehabilitation Scheme**
- **National Fellowship for Students with Disabilities**
- **Unique Disability Identification Project**
- **International Day of Persons with Disabilities**

Initiatives for Mental Health:

- **National Mental Health Programme.**
- **KIRAN: Mental Health Rehabilitation Helpline.**

Read More: **International Day of Persons with Disabilities - Drishti IAS**

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Science & Technology

Highlights

- Nobel Prize in Chemistry 2024
- Nobel Prize 2024 in Physiology or Medicine
- The Nobel Prize in Physics 2024
- DRDO's Deep Tech Efforts for Defence

Nobel Prize in Chemistry 2024

Why in News?

Recently, the Royal Swedish Academy of Sciences awarded the **Nobel Prize in Chemistry 2024**.

- **One half** of the prize was given to **David Baker** for **computational protein design** while the **other half** was jointly given to **Demis Hassabis** and **John M. Jumper** for **protein structure** prediction.

What is the Contribution of David Baker?

- **Revolutionising Protein Engineering:** Baker's research group has used **computational methods** to design **novel proteins** from scratch, reshaping the possibilities of **protein engineering**.
 - By manipulating the **20 different amino acids** that form proteins, his team has created **new proteins** that do not exist in nature.
- **Applications in Medicine and Technology:** These artificially designed proteins have vast potential, particularly in the development of **pharmaceuticals**, **vaccines**, **nanomaterials**, and **biosensors**.
 - Baker has successfully designed proteins with new functions, like **degrading plastics** or performing tasks beyond the capabilities of natural proteins.
- **First Breakthrough in 2003:** Baker's first major success came in **2003** when his team designed a **protein completely different** from any found in nature.

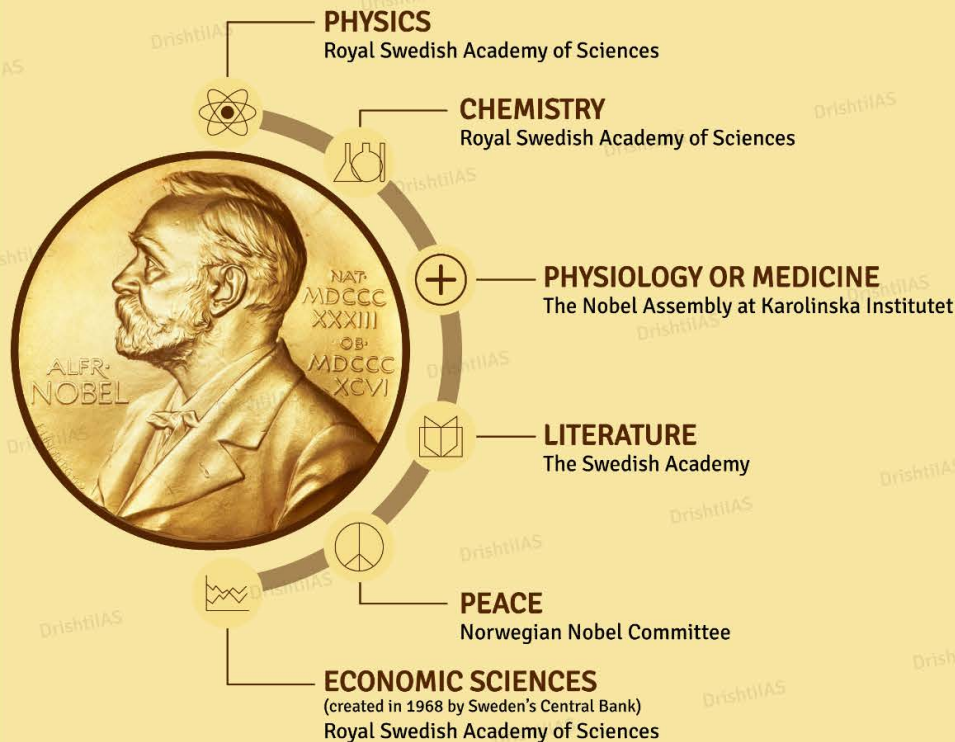
What is the Contribution of Demis Hassabis and John Jumper?

- **Protein Folding Problem:** Since the 1970s, scientists have **struggled** to predict how **strings of amino acids** fold into their **three-dimensional shapes**.
 - The structure of a protein is crucial because it **determines its function**.
 - Understanding these structures is essential for advances in fields like **drug discovery**, **disease treatment**, and **biotechnology**.
- **Breakthrough with AlphaFold2:** In 2020, **Hassabis and Jumper** introduced **AlphaFold2**, an **AI-driven system** that revolutionised **protein structure prediction**.
 - The model was able to **predict** the structure of nearly **every known protein**, approximately **200 million**.
 - This achievement solved a **50-year-old problem** in structural biology.
 - **Traditional approaches** to decoding protein structures, such as **x-ray crystallography**, are slow, laborious, and time-consuming.
- **Widespread Use and Impact:** AlphaFold2 has been used by over **two million researchers** worldwide, enabling breakthroughs in numerous fields.
 - For example, it has been instrumental in understanding **antibiotic resistance** and creating **enzymes** capable of **breaking down plastics**.

Note:

Nobel Prize

- ✦ Established by the will of Alfred Nobel (inventor of Dynamite)
- ✦ Awarded to those who have conferred the greatest benefit to humankind, during the preceding year
- ✦ First awards were handed out in 1901



- ✦ The Prize Ceremony is held in Stockholm, Sweden, in December every year
 - ▲ The Peace Prize is not awarded at Stockholm ceremony but presented annually in Oslo, Norway, on the same day
- ✦ Each Nobel laureate receives a gold medal, a diploma, and a monetary award
- ✦ Nobel Prize cannot be given posthumously (after death). Also, up to 3 people can share a Nobel Prize award between them

✦ **First Indian Nobel Laureate: Rabindranath Tagore for Literature, 1913**

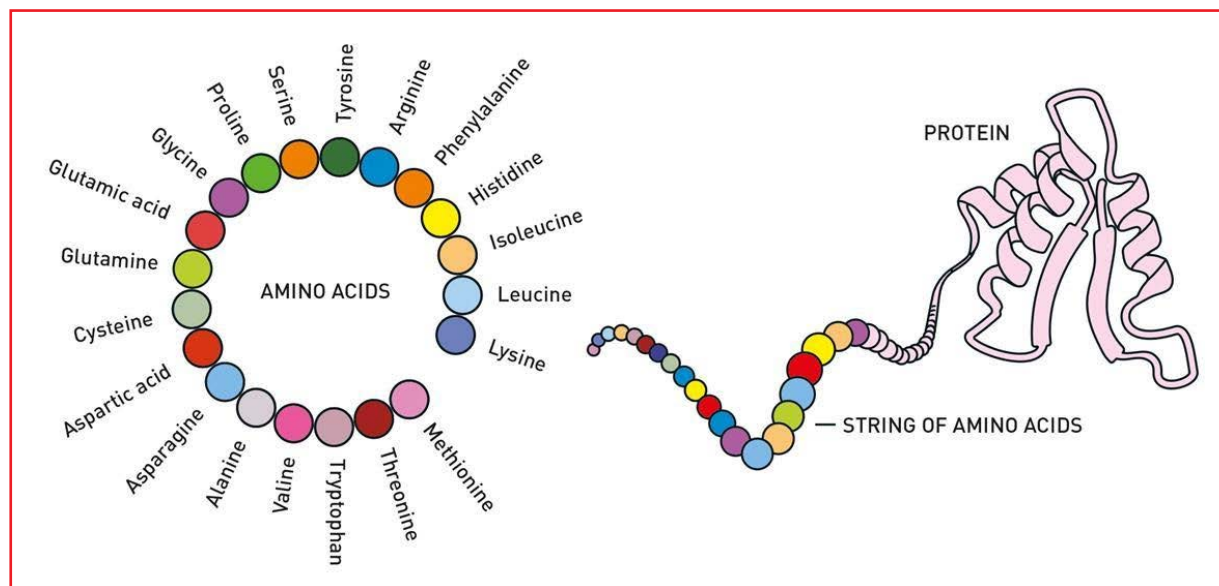
▲ **First Indian Woman Nobel Laureate: Mother Teresa for Peace, 1979**



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What are Key Facts About Proteins?

- **Amino Acids as Building Blocks:** Proteins are made up of **long chains of amino acids**, which are **organic molecules** containing **carbon, hydrogen, nitrogen, oxygen**, and sometimes sulphur.
 - There are **20 different amino acids**, and different combinations of these, **folded** into **three-dimensional structures**, form the various proteins needed for biological processes.
- **Structural Role of Proteins:** The three-dimensional structure of a protein determines its function.
 - In 1972, Nobel Prize in Chemistry was given to **Christian Anfinsen** for his work on **ribonuclease**, especially concerning the **connection between the amino acid sequence**.
- **Proteins as Essential Molecules:** Proteins are **fundamental** to virtually every biological process in living organisms and perform diverse functions such as speeding up **biochemical reactions**, providing structural support, aiding in **immune responses**, and storing nutrients.



Nobel Prize 2024 in Physiology or Medicine

Why in News?

Recently, the **2024 Nobel Prize** in Physiology or Medicine was awarded to **Victor Ambros** and **Gary Ruvkun** by the **Nobel Assembly at Karolinska Institutet** in Stockholm, Sweden.

- The scientists won the esteemed prize for the **discovery of microRNA** and its role in **post-transcriptional gene regulation**.

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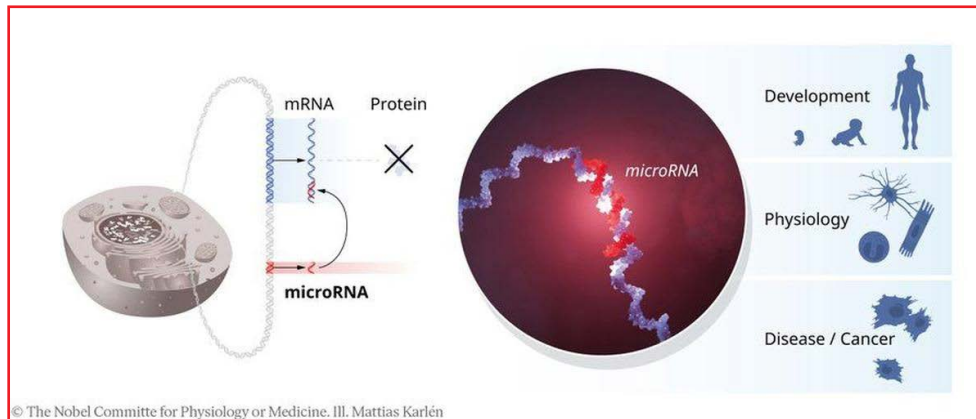
- The **2023 Nobel Prize in Physiology or Medicine** was awarded to **Katalin Karikó** and **Drew Weissman** for their work on **messenger Ribonucleic Acid (mRNA)**.
- The **2024 Nobel Prize in Physics** has been awarded to **John J. Hopfield** and **Geoffrey E. Hinton**, for modern **artificial neural networks (ANNs)** and **machine learning (ML)**.

What Discovery of microRNA led to the Nobel Prize?

- **Early Research:**
 - **C. elegans Model:** Ambros and Ruvkun studied the **roundworm C. elegans** to understand tissue development.

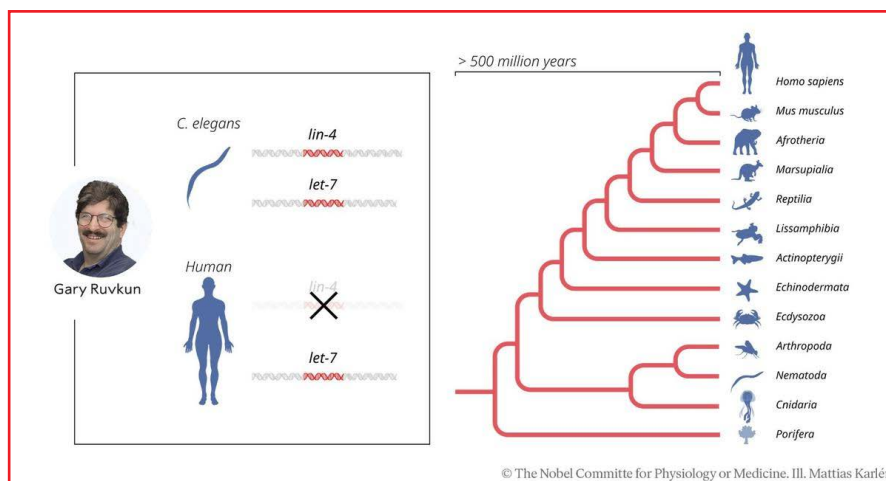
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- **Mutant Strains:** They analyzed mutant strains **lin-4** and **lin-14** with abnormalities in their genetic programming.
- **Ambros' Research:**
 - Ambros found that **lin-4 suppressed lin-14 activity** but couldn't determine how.
 - He cloned **lin-4** and discovered a **short RNA molecule** without protein-coding potential. It suggested the **RNA molecule might inhibit lin-14**.
- **Ruvkun's Research:**
 - He found that **lin-4 didn't block lin-14 mRNA production but regulated it later by inhibiting protein production**. A short lin-4 sequence matched key complementary segments in lin-14 mRNA.
- Ambros and Ruvkun found that **lin-4 microRNA attaches to lin-14 mRNA and blocks protein production**.
- **Significance:**
 - **let-7 discovery:** Ruvkun's group later discovered let-7, a microRNA present throughout the animal kingdom.
 - **Current understanding:** The microRNAs are abundant and play a crucial role in gene regulation across multicellular organisms.



Note:

- **Lin-4:** It is a microRNA, identified from a study of **developmental timing in the nematode *Caenorhabditis elegans***. It was the first to be discovered of the miRNAs, a class of **non-coding RNAs involved in gene regulation**.
- **lin-14:** It is a **heterochronic gene that controls the timing of developmental events** in the nematode *Caenorhabditis elegans*.
 - **Heterochronic genes** are genes that control the timing of cell and tissue development in an organism.



Note:

What are microRNAs?

- The **body synthesizes proteins** through a complex process involving two main steps: **transcription and translation**.
- In the **transcription step**, a **Deoxyribonucleic acid (DNA) sequence** in the **cell nucleus is copied** into messenger **Ribonucleic Acid (mRNA)**.
 - The mRNA then exits the nucleus, moves through the cell fluid, and **attaches to a ribosome**.
- In the **translation step**, transfer RNA (tRNA) **delivers specific amino acids to the ribosome**, where they are linked together in the sequence dictated by the mRNA to form the protein.
- **Micro RNA (miRNA) plays a regulatory role** in protein production by binding to and **silencing mRNA at a specific stage** in the process.
 - This regulation occurs through a mechanism called **post-transcriptional gene regulation**, ensuring protein synthesis is controlled.

About the Winners

- Ambros and Ruvkun are **both American biologists**. **Ambros** currently works at the Programme in **Molecular Medicine at the University of Massachusetts**.
- **Ruvkun** is a **professor of genetics at Harvard Medical School** and conducts research on microRNA and RNA interference.
- **H. Robert Horvitz**, under whom both biologists worked as postdoctoral fellows, **won the Nobel Prize in Physiology or Medicine in 2002**.
- **Ambros** was the **first to clone a microRNA**, and **Ruvkun** **cloned the second**, marking significant milestones in the field.

What are the applications of the Discovery?

- **Abnormal Regulation and Diseases:**
 - **Cancer: Abnormal microRNA** regulation can contribute to **cancer development**.
 - **Mutations:** Mutations in microRNA genes have been linked to conditions like **hearing loss, eye, and skeletal disorders**.
- **Future Applications:**
 - While **microRNAs hold great potential**, there are **currently no direct clinical applications**.
 - **Further research and a deeper understanding** of microRNAs are necessary for future applications.

The Nobel Prize in Physics 2024

Why in News?

The **2024 Nobel Prize in Physics** has been awarded by the **Royal Swedish Academy of Sciences** to **John J. Hopfield and Geoffrey E. Hinton**, two pioneers whose groundbreaking work laid the foundation for **modern artificial neural networks (ANNs) and machine learning (ML)**.

- Their work has had profound implications for various fields, from physics to biology, finance, medicine and chat **Artificial Intelligence (AI)** apps, including **OpenAI's ChatGPT (Generative Pre-trained Transformer)**.

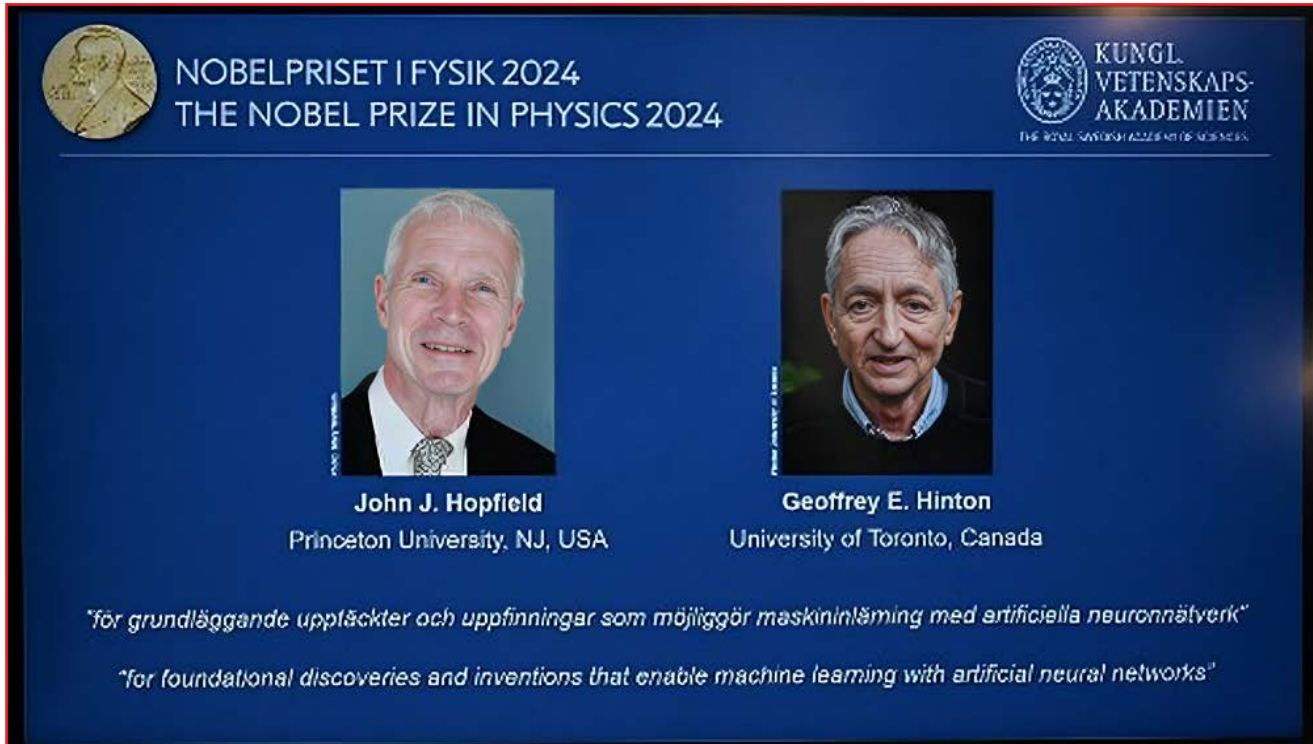
What is the Contribution of John Hopfield?

- **Hopfield Network:** John Hopfield, is best known for creating the **Hopfield network, a type of recurrent neural network (RNN)** that has been foundational in ANN and AI.
 - Developed in the 1980s, the Hopfield network is designed to store simple **binary patterns (0s and 1s)** across a network of artificial nodes (artificial neurons).
 - A key feature of the network is **associative memory**, which allows it to **retrieve complete information from incomplete or distorted inputs** (similar to how the human brain recalls memories when triggered by familiar sensations, like a scent).
 - The Hopfield network, based on **Hebbian learning** (a concept in neuropsychology where repeated interactions between neurons strengthen their connections).
 - By drawing parallels to atomic behavior, Hopfield used statistical physics to make the network perform **pattern recognition and noise reduction** by minimising energy states, a breakthrough in advancing neural networks and AI by mimicking biological brain functions.
- **Impact:** Hopfield's model system has been used to solve **computational tasks, complete patterns, and improve image processing**.

What is the Contribution of Geoffrey Hinton?

- **Restricted Boltzmann Machines (RBMs):** Building on Hopfield's work, in the 2000s, Hinton developed a learning algorithm for **Restricted Boltzmann Machines (RBMs)**, which enabled deep learning by stacking multiple layers of neurons.

Note:



- The RBMs could learn from **examples rather than explicit instructions**. This was revolutionary because it allowed the machine to recognize new patterns based on similarities with previously learned data.
- The Boltzmann machine could recognize categories it had never encountered if they matched learned patterns.

➤ **Applications:** Hinton's work has led to breakthroughs in numerous fields, from healthcare diagnostics to financial modeling and even AI technologies like **chatbots**.

Note: The Nobel Prize in Physics 2023 was awarded to **Anne L'Huillier, Pierre Agostini, and Ferenc Krausz** for their work in **attophysics** (focuses on generating and utilising extremely short light pulses to examine fast processes, particularly those involving electrons).

What are Artificial Neural Networks (ANNs)?

- **About:** ANNs are inspired by the structure of the brain, where **biological neurons** are interconnected to perform complex tasks. In ANNs, **artificial neurons (nodes)** process information collectively, allowing data to flow through the system, similar to brain **synapses**.
- **Common Architectures of ANNs:**

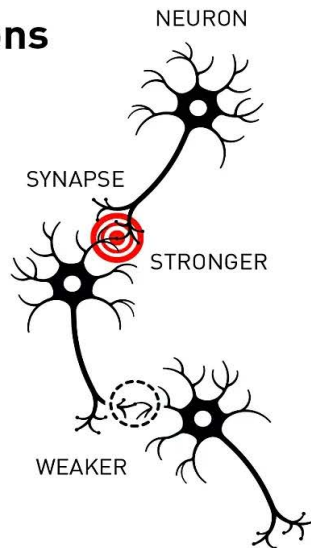
- **Recurrent Neural Networks (RNNs):** It is trained on **sequential or time series data** to create a **machine learning (ML) model** that can make sequential predictions or conclusions based on sequential inputs.
- **Convolutional Neural Networks (CNNs):** Designed for **grid-like data** (e.g., images), CNNs use three-dimensional data for image classification and object recognition tasks.
- **Feedforward Neural Networks:** The simplest architecture, where information flows in one direction from input to output with fully connected layers.
 - It is simpler than recurrent and convolutional neural networks.
- **Autoencoders:** Used for unsupervised learning, they take input data, compress it to keep only the most important parts, and then rebuild the original data from this compressed version.
- **Generative Adversarial Networks (GANs):** They are a powerful type of neural network used for unsupervised learning. They consist of **two networks**: a **generator**, which creates fake data, and a **discriminator**, which distinguishes between real and fake data.

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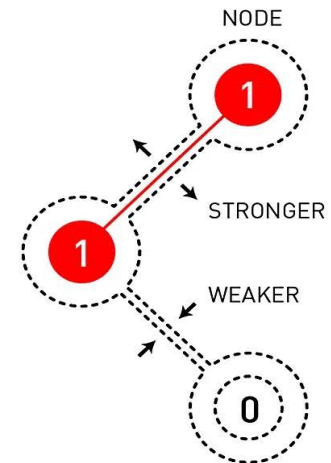
- Through this adversarial training (a machine learning technique that helps models become more robust), GANs produce realistic, high-quality samples.
- They are versatile AI tools widely used in image synthesis, style transfer, and text-to-image synthesis, revolutionising generative modelling.

Natural and artificial neurons

The brain's neural network is built from living cells, neurons, with advanced internal machinery. They can send signals to each other through the synapses. When we learn things, the connections between some neurons get stronger, while others get weaker.



Artificial neural networks are built from nodes that are coded with a value. The nodes are connected to each other and, when the network is trained, the connections between nodes that are active at the same time get stronger, otherwise they get weaker.



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What is Machine Learning?

- **About:** It is a branch of **Artificial intelligence (AI)** that uses data and algorithms to enable **computers to learn from experience** and improve their accuracy over time.
- **Operating Mechanism:**
 - **Decision Process:** Algorithms predict or classify data based on input, which can be labelled or unlabeled.
 - **Error Function:** This function evaluates the model's predictions against known examples to assess accuracy.
 - **Model Optimization Process:** The model iteratively adjusts its weights to improve its predictions until it reaches an acceptable level of accuracy.
- **Machine Learning vs. Deep Learning vs. Neural Networks:**
 - **Hierarchy:** AI encompasses ML; ML encompasses **deep learning**; deep learning relies on neural networks.
 - **Deep Learning:** A subset of machine learning that uses **neural networks with many layers (deep neural networks)** and can process unstructured data without needing labelled datasets.
 - **Neural Networks:** A specific type of machine learning model structured in layers (input, hidden, output) that mimic how the human brain works.
 - **Complexity:** As transition from AI to neural networks, the complexity and the specificity of tasks increase, with deep learning and neural networks being specialised tools within the broader AI framework.

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Artificial Intelligence(AI)

AI is the simulation of human intelligence in machines programmed to think and learn like humans, capable of problem-solving, reasoning, and adapting to new information.

AI Timeline - Major Milestones

- 1950s** Turing Test Proposed; First AI Programs Developed
- 1956** Dartmouth Conference Coins "Artificial Intelligence"
- 1960s** Eliza Chatbot Created; Early Neural Networks Emerge
- 1996** Deep Blue - a Chess-Playing Program
- 2012** Deep Learning Breakthrough in Image Recognition
- 2014** Generative Adversarial Networks (GANs) Introduced
- 2020** GPT-3 Demonstrates Advanced Language Generation
- 2022** Chatgpt Launches, Bringing Conversational AI to Masses
- 2023** Generative AI Boom; Major Tech Companies Release AI Models



Applications of AI

- ↳ **Healthcare:** Personalised medicine
- ↳ **Finance:** Algorithmic trading
- ↳ **Transportation:** Autonomous vehicles
- ↳ **Marketing & Customer Service:** Targeted advertising, chatbots
- ↳ **Education:** Adaptive learning systems, personalised tutoring
- ↳ **Agriculture:** Crop monitoring
- ↳ **Cybersecurity:** Threat detection
- ↳ **Energy:** Smart grid management, consumption forecasting

Concerns

- ↳ Deepfakes & misinformation
- ↳ Algorithmic bias
- ↳ Automation & job displacement
- ↳ Privacy issues
- ↳ Data ownership & liability issue
- ↳ Ethical decision-making complexes

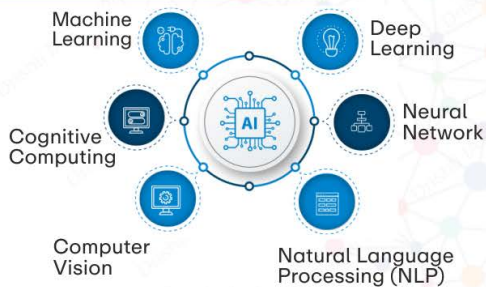
Regulating AI

- ↳ **Global Partnership on AI (GPAI)** launched in 2020
- ↳ **Bletchley Declaration (2023):** Enhance Global Collaboration on AI
- ↳ **G20 New Delhi Leaders' Declaration (2023):** Harnessing AI responsibly for good and for all
- ↳ **Hiroshima AI Process (2023)** by G7

India and AI

- ↳ **National Strategy For AI 2018**
- ↳ **AI For All:** Self-learning online program
- ↳ **GPAI Summit 2023** hosted by India
- ↳ **IndiaAI Mission 2024**
- ↳ **US India Artificial Intelligence (USIAI) Initiative:** AI cooperation in critical areas
- ↳ **AIRAWAT** (AI Research, Analytics and Knowledge Assimilation Platform): Supercomputer

KEY COMPONENTS OF AI



DRDO's Deep Tech Efforts for Defence

Why in News?

The **Defence Research and Development Organisation (DRDO)** is set to launch a new initiative aimed at **advancing emerging military technologies**. It will fund five deep-tech projects, with each project receiving up to Rs 50 crore, to promote the **indigenisation of defence products** and strengthen national security.

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- This initiative is supported by a Rs 1-lakh crore fund announced in the **Interim Budget 2024-2025** to drive transformative research in the defence sector.

What are the Key Points About the Projects?

- **Objective:**
 - DRDO aims to **reduce reliance on imports of systems**, subsystems, and components required by the tri-services through indigenisation.
 - By focusing on futuristic and disruptive technologies, DRDO will seek innovative solutions for concepts that are not currently available in India or globally.
- **Futuristic and Disruptive Tech:**
 - DRDO has identified **three broad categories** for inviting proposals: indigenisation, futuristic and disruptive technology, and cutting-edge technology.
 - It primarily **focuses on advancing research in futuristic and disruptive technologies**, such as **quantum computing, blockchain, and artificial intelligence**.
 - **Futuristic and disruptive technologies** are innovations that significantly **transform or revolutionise existing industries, markets, or societal norms** by introducing new methods, products, or services.
 - Globally, similar programmes are led by state defence research organisations, such as the **US DARPA (United States Defense Advanced Research Projects Agency)** which DRDO is using as a model for its deep tech initiative.
 - Investments in these deep tech projects will be executed through **DRDO's Technology Development Fund (TDF)**.
 - The TDF has been collaborating with private industries, especially **MSMEs and start-ups**, to develop military hardware and software needed by the armed forces.

Defense Advanced Research Projects Agency (DARPA)

- DARPA is a **research and development agency under the United States Department of Defense**, focused on developing emerging technologies for military applications.
- Its objective is **to design and implement research and development projects** aimed at pushing the boundaries of technology and science, often addressing needs beyond immediate military requirements.

What is the Defence Research and Development Organisation (DRDO)?

- **About:**
 - DRDO is the **R&D (Research and Development) wing** of the **Ministry of Defence** with a vision to empower India with cutting-edge defence technologies.
 - Its **pursuit of self-reliance** and successful indigenous development and production of strategic systems and platforms such as **Agni and Prithvi series of missiles, Light Combat Aircraft, Tejas, multi-barrel rocket launcher, Pinaka, air defence system, Akash, a wide range of radars and electronic warfare systems, etc.** have given quantum jump to India's military might, generating effective deterrence and providing crucial leverage.
- **Formation:**
 - It was formed in 1958 from the amalgamation of the **Technical Development Establishment (TDEs)** of the Indian Army and the **Directorate of Technical Development & Production (DTDP)** with the **Defence Science Organisation (DSO)**.
 - DRDO is a network of more than 50 laboratories which are deeply engaged in developing defence technologies covering various disciplines, like aeronautics, armaments, electronics, combat vehicles, engineering systems etc.
- **Technology Clusters of DRDO:**
 - **Aeronautics:** Focuses on designing and developing aviation technologies, including aircraft, **Unmanned Aerial Vehicle (UAVs)**, and advanced materials.
 - **Armament and Combat Engineering:** Develops weapon systems, artillery, and ammunition for the armed forces.
 - **Missiles and Strategic Systems:** Specializes in missile technology, including ballistic missiles, cruise missiles, and tactical missile systems.
 - **Electronics and Communication Systems:** Works on radar systems, communication devices, and electronic warfare systems for military applications.
 - **Life Sciences:** Develops technologies for human survival in extreme environments, such as protective gear, life-support systems, and combat casualty care.
 - **Materials and Life Sciences:** Focuses on advanced materials, **nanotechnology**, and **biotechnology** for defence applications.

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What are the Achievements of DRDO?

System	Description
Agni and Prithvi Missile Series	Successful development of ballistic missile systems , significantly enhancing India's strategic capabilities.
Tejas Light Combat Aircraft (LCA)	An indigenous multi-role fighter aircraft, designed and developed by DRDO in collaboration with other agencies.
Akash Missile System	A medium-range surface-to-air missile system that provides air defence support to the Indian Army and Air Force.
BrahMos Missile	World's fastest supersonic cruise missile , developed in collaboration with Russia.
Arjun Main Battle Tank (MBT)	Arjun Main Battle Tank (MBT) is an indigenous battle tank designed for the Indian Army, featuring advanced firepower, mobility, and protection systems.
INSAS Rifle Series	INSAS Rifle Series is an indigenous design and development of small arms, including rifles, for the Indian armed forces.
Light Combat Helicopter (LCH)	Developed to meet the operational requirements of the Indian Army and Air Force .
NETRA UAV	NETRA UAV is an indigenous unmanned aerial vehicle designed for surveillance and reconnaissance operations.
Submarine Sonar Systems	Development of sonar and underwater communication systems for the Indian Navy's submarines.

What are the Challenges Faced by DRDO?

- **Delays in Project Execution:** Many DRDO projects, such as the **development of advanced weapon systems and aircraft**, have faced **significant delays**, affecting timely deployment and causing cost overruns.
- **Technology Gaps and Dependence on Imports:** Despite a substantial production and R&D base, the Indian defence industry **lacks the technological capability to independently design and manufacture major systems**, critical parts, components, and raw materials, leading to continued reliance on imports.
 - This limited technological depth is a key factor behind the Indian government's preference for licensing the manufacture of many major defence systems.
- **Budgetary Constraints:** The budget allocation for **the DRDO increased to Rs 23,855 crore in FY 2024-25**, up from **Rs 23,263.89 crore in FY 2023-24**.
 - Despite this increase, the **budget growth remains modest**, not aligning with the government's strong emphasis on modernisation and the indigenisation of defence technology.
- **Collaboration with Industry and Academia:** While DRDO is trying to increase collaboration with private industries and academic institutions, aligning them efficiently with defence R&D requirements remains a challenge.



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Environment and Ecology

Highlights

- India's Biodiversity Target Under CBD
- Living Planet Report 2024
- High-Performance Buildings (HPBs)
- Greenhushing and its Implications
- 57th Meeting of National Mission for Clean Ganga

India's Biodiversity Target Under CBD

Why in News?

Recently, India plans to submit its **National Biodiversity Targets** to the **United Nations Convention on Biological Diversity (CBD)** aligning with the **Kunming-Montreal Global Biodiversity Framework (KMGBF)**.

- **Article 6 of CBD** calls all parties to prepare **national strategies, plans or programmes** for conservation and sustainable use of biodiversity.
- India is expected to submit its **23 biodiversity targets** at the **16th Conference** of the Parties to the CBD (CBD-COP 16) at **Cali, Colombia**.

What is India's Biodiversity Target Under CBD?

- **Conservation Areas:** Aiming for **30%** of areas to be effectively **conserved** to enhance biodiversity.
- **Invasive Species Management:** Targeting a **50% reduction** in the introduction and establishment of **invasive alien species**.
- **Rights and Participation:** Ensuring the participation and rights of **indigenous peoples**, local communities, women, and youth in biodiversity conservation efforts.
- **Sustainable Consumption:** Enabling sustainable consumption choices and **reducing food waste by half**.
- **Benefit Sharing:** Promoting **fair and equitable sharing** of benefits from genetic resources, digital sequence information, and associated **traditional knowledge**.
- **Pollution Reduction:** Committing to reduce pollution, **halving nutrient loss** and pesticide risk.
- **Biodiversity Planning:** Ensuring that all areas are managed to reduce the loss of regions of high biodiversity importance.

What is the Kunming-Montreal Global Biodiversity Framework (KMGBF)?

- **About:** It is a multilateral treaty aimed at **halting and reversing biodiversity loss** globally by 2030.
 - It was adopted in **December 2022** during the **15th meeting** of the Conference of the Parties (CoP).
 - It supports the **Sustainable Development Goals (SDGs)** and builds upon the achievements and lessons learned from the **Strategic Plan for Biodiversity 2011–2020**.
- **Purpose and Goals:** It ensures that by **2030** at least **30%** of areas of degraded **terrestrial, inland water, and marine and coastal ecosystems** are under effective restoration.
 - It has **23 action-oriented** global targets for urgent action over the decade to 2030 which will enable achievement towards the outcome-oriented goals for 2050.
 - It is important to note that this target refers to **collective global efforts** rather than a requirement for **each country** to allocate **30%** of its land and water areas.
- **Long-Term Vision:** The framework envisions that by **2050**, there will be a collective commitment to living in **harmony with nature**, serving as a foundational guide for current actions and policies on biodiversity conservation and sustainable use.

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CBD COP15

The UN Convention on Biological Diversity (CBD) 1993 - a legally binding treaty to conserve biodiversity

CBD Conference of Parties is the Governing body of the Convention



MEETINGS OF THE CONFERENCE OF THE PARTIES

COP 1 (1994)

- Nassau, Bahamas
- Proposed 29 December as International Day for Biological Diversity

EXCOP 1

- 1st extraordinary meeting of UN CBD COP
- At Cartagena, Colombia (Feb 1999) & Montreal, Canada (Jan 2000)
- Adoption of Cartagena Protocol on Biosafety

COP 6 (2002)

- The Hague, Netherlands
- Global Taxonomy Initiative, Global Strategy for Plant Conservation adopted

COP 5 (2000)

- Nairobi, Kenya
- UNGA adopted 22 May as International Day for Biological Diversity

COP 10 (2010)

- Nagoya, Japan
- Nagoya Protocol (Access to Genetic Resources and Fair & Equitable Sharing of Benefits) adopted
- Strategic Plan for Biodiversity 2011-20 and Aichi Biodiversity Targets
- GBO 3

COP 8 (2006)

- Curitiba, Brazil
- Global Biodiversity Outlook (GBO) Report 2 (GBO 1 in 2001)

COP 11 (2012)

- Hyderabad, India

COP 14

- Sharm El-Sheikh, Egypt

PHASE-I

- Theme - Ecological Civilization: Building a Shared Future for All Life on Earth
- Held in Kunming, China (October 2021)
- Kunming Biodiversity Fund

COP 15

PHASE-II

- Held in Montreal, Canada
- Adopted Post 2020 Global Biodiversity Framework - 4 goals & 23 targets to be achieved by 2030.
- 30 by 30 Target - restore 30% degraded ecosystems and protect at least 30% of the world's lands, oceans and coastal areas by 2030
- No single country met all 20 Aichi targets (expired in 2020) within its own borders



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Development of National Biodiversity Targets (NBTs)

- **Aichi Biodiversity Targets:** In response to the CBD obligations, India has developed **12 national biodiversity targets (NBTs)** that align with the previous **Aichi Biodiversity Targets (2011-2020)**.
- **National Biodiversity Action Plan (NBAP):** It was originally created in **2008** and updated in **2014** to incorporate **Aichi Biodiversity Targets**.
- **Monitoring:** Associated indicators and **monitoring framework** has also been developed by India to provide a roadmap for achieving the NBTs.

How India Can Achieve the New Biodiversity Goals?

- **Habitat Connectivity:** India needs to prioritise the conservation of neglected ecosystems such as **grasslands, wetlands, and seagrass meadows**.
 - Well-connected protected areas **integrated into broader landscapes and seascapes** can facilitate the movement of species and promote biodiversity.
- **Mobilising Financial Resources:** India should continue to advocate for **financial support** from developed nations to implement its national biodiversity action plans effectively.
 - The GBF calls for developed countries to mobilise at least **USD 20 billion annually by 2025 and USD 30 billion by 2030** for biodiversity initiatives in developing countries.
- **Co-Management Models:** Developing co-management frameworks that involve **indigenous peoples and local communities** in the conservation process can

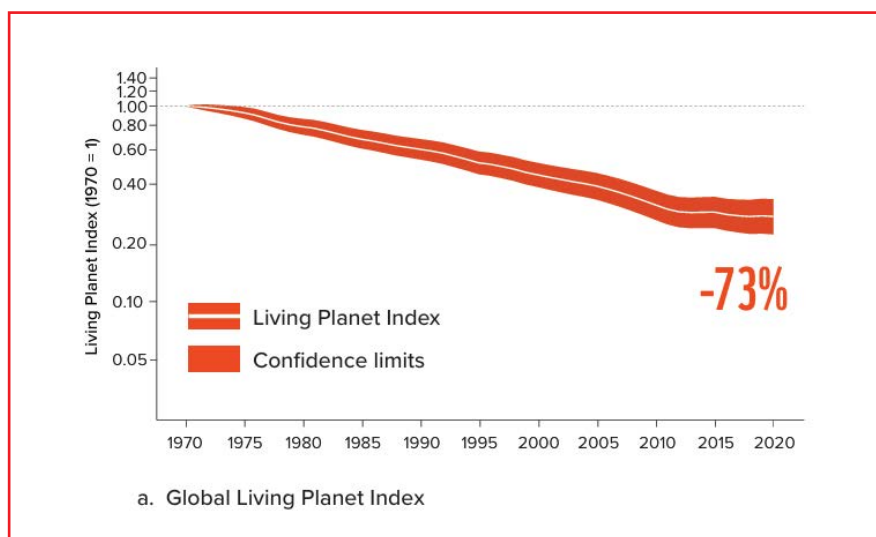
enhance the effectiveness of protected areas while maintaining community livelihoods.

- **Integrating OECMs:** Shifting focus from traditional protected areas to **other effective area-based conservation measures (OECMs)** allows for the conservation of biodiversity in areas with fewer restrictions on human activity.
 - It includes supporting traditional **agricultural systems and privately owned lands** that contribute to conservation goals.
- **Reforming Agricultural Subsidies:** India should redirect support from harmful practices, such as **pesticide use**, to sustainable alternatives that promote ecosystem health.
- **Alignment with Previous Targets:** Building on the existing **National Biodiversity Action Plan (NBAP)** and aligning it with the new **23 targets** of the GBF will create a cohesive strategy for biodiversity conservation in India.

Living Planet Report 2024**Why in News?**

According to the **World Wide Fund for Nature (WWF)**'s **Living Planet Report 2024**, there has been a catastrophic **73% decline** in the average size of monitored wildlife populations in just 50 years (1970-2020).

- The **highest decline** was reported in **freshwater ecosystems (85%)**, followed by **terrestrial (69%) and marine (56%)**.



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World Wildlife Fund for Nature

- It is the **world's leading conservation organization** and works in more than 100 countries.
- It is an international **non-governmental organization**, **established in 1961** and is **headquartered at Gland, Switzerland**.
- Its **mission is to conserve nature** and reduce the most pressing threats to the diversity of life on Earth.
- WWF collaborates at every level with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places in which they live.
 - **World Wide Fund for Nature-India**, commonly referred to as **WWF-India**, was **established as a charitable trust in 1969**.
 - It operates through an **autonomous structure**, with its **Secretariat located in New Delhi**, along with multiple state, divisional, and project offices distributed across India.

What is the Living Planet Report and its Key Findings?

- **About:**
 - The WWF utilises the **Living Planet Index (LPI)** to track average trends in wildlife populations. It monitors broader changes in species population sizes over time.
 - The Living Planet Index, released by the **Zoological Society of London (ZSL)**, monitors nearly 35,000 vertebrate populations across 5,495 species from 1970 to 2020.
 - It acts as an early warning system for extinction risks and also helps evaluate the overall health and efficiency of ecosystems.
- **Key Findings:**
 - **Significant Population Declines:** The steepest declines in monitored wildlife populations are recorded in **Latin America and the Caribbean (95%)**, **Africa (76%)** and **Asia-Pacific (60%)** and in freshwater ecosystems (85%).
 - **Primary Threats to Wildlife:** Habitat loss and degradation, is the most **reported threat to wildlife populations** around the world, followed by **overexploitation**, **invasive species** and disease.
 - **Indicators of Ecosystem Health:** Declines in wildlife populations can act as an **early warning indicator** of increasing extinction risk and loss of healthy ecosystems.

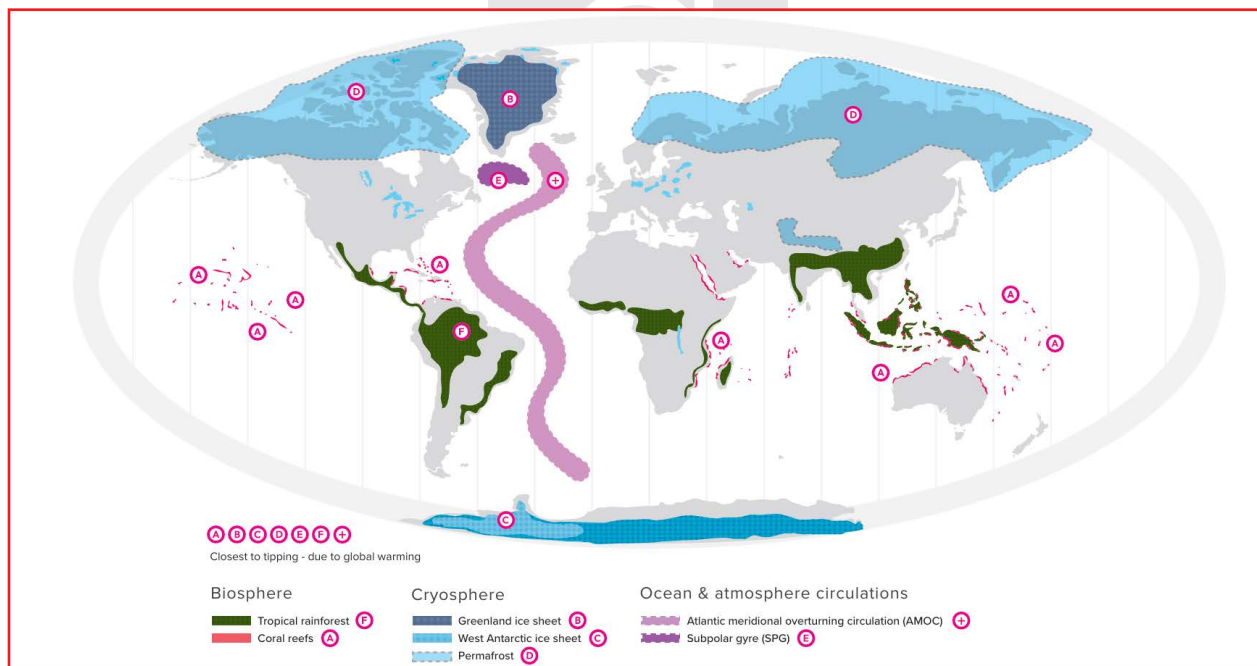
- Damaged ecosystems become more vulnerable to **tipping points** which are **pushed beyond a critical threshold** toward potentially irreversible change.
- For example, a study in the **Brazilian Atlantic Forest** indicates that the **loss of large fruit-eating animals** has **reduced seed dispersal** for large-seeded trees, which affects carbon storage.
 - The WWF warns that this phenomenon could lead to carbon storage losses of 2-12% across forests in **Africa, Latin America, and Asia**, diminishing their ability to store carbon amid climate change.
- **Vulnerability of Damaged Ecosystems:** There are global agreements and solutions to set nature on the path to recovery by 2030, but so far there has been **limited progress**, and **urgency is lacking**.
 - More than half of the UN-mandated **Sustainable Development Goals** for 2030 are unlikely to meet their targets, with 30% already missed or worse than their 2015 baseline.
- **Economic Impacts:** Globally, over half of **GDP** (55%) is moderately or highly dependent on nature and its services.
 - The report estimates that **by 2050, the world would only need 0.84 of an Earth to sustain food production** if India's diet model were adopted worldwide.
- **Threats to Biodiversity:**
 - **Habitat Degradation and Loss:** **Deforestation, urbanization**, and agricultural expansion are **leading causes of habitat destruction**. These activities **fragment ecosystems**, leaving species with less space and resources to survive.
 - The **Sacramento river winter-run Chinook salmon population decreased by 88%** between 1950 and 2020, primarily due to dams disrupting their migratory routes.
 - **Overexploitation:** Excessive hunting, fishing, and logging for commercial purposes are **depleting wildlife populations faster** than they can recover, pushing many species toward extinction.
 - In Africa, **poaching for the ivory trade** has led to a 78-81% decline in forest elephant populations in **Minkébé National Park** from 2004 to 2014.

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- **Invasive Species:** Non-native species introduced by humans often outcompete local species for resources, **destabilising ecosystems and reducing biodiversity.**
- **Climate Change:** Rising temperatures, shifting weather patterns, and extreme events are **altering habitats, threatening species** that cannot adapt quickly enough.
 - **Wildfires** are becoming longer, with extreme fire events occurring more frequently, even reaching the **Arctic Circle.**
- **Pollution:** Industrial waste, **plastic pollution**, and **agricultural runoff** contaminated ecosystems, poisoning wildlife and disrupting the balance of natural processes.
- **Critical Tipping Points:** These refer to **irreversible changes in ecosystems** that, once crossed, **lead to dramatic shifts.**
 - **Coral Reef Bleaching:** Mass coral die-offs could **destroy fisheries and coastal protection**, affecting millions of people.
 - **Amazon Rainforest:** Continued deforestation could **disrupt global weather patterns** and release vast amounts of carbon, intensifying climate change.
 - **Greenland & Antarctic Ice Melt:** Melting ice sheets would lead to **significant sea level rise**, impacting coastal regions globally.
 - **Ocean Circulation:** The collapse of ocean currents could **alter weather in Europe and North America.**
 - **Permafrost Thaw:** Large-scale thawing could release vast amounts of **methane and carbon**, accelerating global warming.



What are the Challenges Related to Conservation of Biodiversity?

- **Conflicting Priorities:** Balancing **conservation with economic growth** can be challenging, especially in developing nations where **short-term economic gains often take precedence** over long-term ecological sustainability.
- **Resource Allocation:** Limited financial resources and competing budget priorities make it difficult for **governments to invest** in large-scale **biodiversity conservation efforts** while addressing pressing social needs.
- **Agricultural Expansion:** Meeting food security goals can conflict with habitat protection, as **land for agriculture encroaches on ecosystems**, particularly in biodiversity hotspots.

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- **Issue in Energy Transition:** Shifting to renewable energy can impact ecosystems through land-use changes (e.g., solar farms, wind turbines), creating trade-offs between environmental protection and energy needs.
- **Policy and Enforcement Gaps:** Weak institutional frameworks and inconsistent enforcement of **environmental regulations** at both global and national levels **hinder effective biodiversity protection**, allowing unsustainable practices to continue unchecked.

High-Performance Buildings (HPBs)

Why in News?

In recent years, the importance of **high-performance buildings (HPBs)** have increased that promote **energy efficiency** and **healthier indoor environments**.

- HPBs means a building that **integrates and optimises** all major high-performance building attributes, including **energy efficiency, durability, life-cycle performance, and occupant productivity**.

What are the Key Features of HPBs?

- **Energy Efficiency:**
 - **Maintain HVAC Systems (Heating, Ventilation, and Air Conditioning):** Regular maintenance, such as **replacing filters, cleaning coils, and calibrating sensors**, can help maintain their efficiency and reduce unnecessary energy consumption.
 - **Demand-Controlled Ventilation:** **IoT-based air quality sensors** can automatically adjust **ventilation systems** making buildings more efficient and responsive to environmental conditions.
 - **Lighting Systems:** **Energy-efficient LED** options can reduce energy consumption. **Daylight harvesting**, which makes use of natural light, can further lower the need for artificial lighting.
 - **Invest in Insulation:** Adequate **insulation for walls, roofs, and floors** can reduce the need for heating and cooling by minimising heat transfer.
- **Healthy Indoor Environment:**
 - **Prioritise Indoor Air Quality:** It uses indoor **air filtration** systems to reduce pollutants.
 - **Sound and Acoustics:** **Sound-absorbing materials** and effective partitioning can help reduce noise pollution in buildings.

- **Biophilic Design:** Incorporating natural elements, such as **green walls, indoor plants, and water features** enhance the mental well-being of occupants.
- **Sustainability and Environmental Impact:**
 - **Sustainable Materials:** **Recycled steel**, sustainably-sourced timber, and **low-impact concrete** is key to reducing the environmental impact of buildings.
 - **Water Conservation and Efficiency:** Rainwater harvesting and **greywater recycling** systems enhance water conservation.
 - **Waste Reduction and Management:** Reducing, recycling, and properly managing waste are essential for sustainable building operations.

What is the Need of High-Performance Buildings?

- **Carbon Emissions:** Globally, buildings account for **nearly 40% of total final energy consumption** over their lifespan.
 - It leads to approximately **28%** of energy-related **carbon emissions**.
 - According to the **Bureau of Energy Efficiency**, in India, buildings account for more than **30% of the national energy use** and **20% of its carbon emissions**.
- **Quadrupling Power System by 2040:** India's power system will need to **quadruple in size by 2040** to meet growing electricity demand.
 - Also, Indian buildings are experiencing a **surge in energy use** due to **higher urban temperatures**, glazed facades, and higher occupant density.
 - HPBs can significantly reduce energy demands through **innovative solutions**.
- **Rising Urbanisation:** India's urban population is expected to **reach 600 million by 2030**.
 - As cities expand, the demand for new construction rises, and without intervention, the sector's **carbon footprint** is set to grow significantly.
- **Achieving Global Goals:** With increasing energy demand and a booming construction sector, India risks exceeding **global energy efficiency and carbon emission standards** for buildings set by the **International Energy Agency**, building certification programs, and the EU's Energy Performance of Buildings Directive.

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- **UNEP's 30% efficiency improvement goal** emphasises that the global building sector must improve its **energy efficiency by 30% by 2030** to meet climate targets.
- **Lower Operating Costs:** HPBs optimisations can result in **23% lower energy use, 28% lower water use, and 23% lower building operating expenses.**
- **Improved Productivity:** Providing a healthy indoor environment has been linked to higher **occupant satisfaction**, increased productivity, and reduced absenteeism due to illness.



What are the Tools Associated With HPBs?

- **Ladybug:** It offers detailed **climate analysis** and data in **2D and 3D interactive graphics** to assess design options through view, sunpath, and radiation analysis.
- **Green Building Studio:** It is a **cloud-based service** that can run building performance simulations for energy optimisation.
- **Cove.Tools:** It allows architects and engineers to use data-driven design to achieve **sustainable design solutions.**
- **ClimateStudio:** It works best for simulations for **daylighting, energy efficiency, thermal comfort** and other measures of occupant wellbeing.

Notable Examples of HPBs in India

- **Unnati Building in Greater Noida:** This HPB features a **façade** designed according to the **Sun's path to improve thermal comfort and energy efficiency.** The building uses high-performance glass with a low solar heat gain coefficient to reduce glare and enhance energy performance.
- **Indira Paryavaran Bhawan in New Delhi:** This building employs an **advanced HVAC system** that circulates **chilled water** through beams in the ceiling, utilising natural convection to reduce energy consumption.
- **Net-Zero and Grid-Interactive Buildings:** HPBs in India are also paving the way for **net-zero buildings**, which generate as much energy and water as they consume, and grid-interactive buildings that manage energy demand dynamically.

What are the Challenges in Delivering High-Performance Buildings?

- **Operational Oversight:** Developers typically prioritise **initial project costs, schedules, and design scope**, overlooking the operational phase and long-term energy, waste management, and maintenance.
- **Diverse Building Typologies:** Office buildings vary greatly in terms of **types, costs, services, and comfort levels.**
 - Some buildings have **decentralised cooling systems** that are energy inefficient while some buildings are **centrally air-conditioned**, have high glazing, and come with higher energy consumption.
- **Split Incentives:** Energy savings projects often receive little support due to differences in who benefits from energy efficiency improvements. Eg, Maintenance by owners or tenants.
- **Erosion of Indigenous Knowledge:** Region-specific methods that are **cost-effective and well-suited to local conditions** are being lost due to **overreliance** on foreign technologies that may not be as efficient in the Indian context.
- **Siloed Building Systems:** Building design, construction, and operation are often treated in isolation. This **fragmented approach** prevents the integration of technologies that can improve overall building performance.

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What are India's Initiatives Regarding the Energy Efficiency in Buildings?

- **Eco-Niwas Samhita**
- **Energy Conservation Building Code (ECBC)**
- **Energy Conservation (Amendment) Act, 2022**
- **NEERMAN Awards**
- **Green Rating for Integrated Habitat Assessment (GRIHA)**

How High-Performance Buildings Can be Promoted in India?

- **Envelope and Passive Systems:** Envelope strategies like **wall, windows, roof assemblies, reflective white surfaces and shading** can avoid exposures to solar heat gain and glare, and support natural ventilation where possible.
- **Integrated Approach:** A lifecycle performance assurance process that emphasises the **integration of building systems** should replace conventional and siloed methodologies.
- **Holistic Evaluation:** Adopt a **triple-bottom-line framework** that evaluates building technologies and systems based on **operational, environmental, and human benefits**.
 - This framework should consider energy savings, reduced carbon footprint, and improved occupant health and productivity.
- **Collaborative Energy Efficiency Initiatives:** Encourage collaborative initiatives between owners and tenants that align their interests in energy efficiency upgrades, creating a shared commitment to sustainability goals.
- **Tailored Strategies:** Advocate for **region-specific, climate-responsive** solutions such as high-performance envelope design, low-energy cooling strategies, and adaptive comfort techniques.
- **Heating Ventilation and Air Conditioning Systems (HVAC):** Separate the spaces that could be **naturally ventilated** and develop mixed-mode opportunities, rather than fully air conditioning all built spaces at all times.

Greenhushing and its Implications

Why in News?

Recently, there has been an increase in **carbon-neutral certified firms** across the globe, but many **choose**

not to promote their environmental achievements, leading to a global trend known as **"greenhushing."**

- Firms motivated by **altruism** and a desire to maintain their **social salience** are reluctant to communicate and tend to greenhush.

What is Greenhushing?

- Greenhushing occurs when firms **under report or strategically withhold information** about their environmental **goals and achievements**.
- Greenhushing firms **don't advertise their green credentials** or deliberately remain silent about their future commitments to environmental sustainability.

Why do Firms do Greenhushing?

- **Litigation Concerns in the United States:** In the US, **public companies** may face **lawsuits** if they are seen as prioritising **sustainability over shareholder profits**.
 - This legal risk discourages companies from openly discussing their environmental initiatives.
- **Backlash Against ESG:** In conservative states within the US, there has been **backlash against ESG (environmental, social, and governance)** efforts.
 - It has prompted some firms to stop discussing their environmental goals to **avoid political and regulatory scrutiny**.
- **Lower Quality of Green Products:** Many consumers associate **green products** with **lower quality or higher prices**.
 - Therefore, many companies are reluctant to promote the environmental benefits of their products which may **harm their brand** by reinforcing these negative perceptions.
- **Avoiding Future Commitments:** Companies that are vocal about their sustainability efforts often **attract attention** and are held to **higher standards**.
 - By remaining silent, firms can **avoid** expectations of **future commitments** or pressure to achieve more ambitious environmental goals.
- **Avoiding Customer Discomfort:** When people are on vacation, they often want to escape from problems like **climate change** or **resource depletion**.
 - Hence, many businesses in the tourism industry prefer **not to communicate** their environmental efforts to avoid making their customers **uncomfortable**.
- **Greenwashing Accusations:** Public accusations of **greenwashing** can harm a firm's image and cause

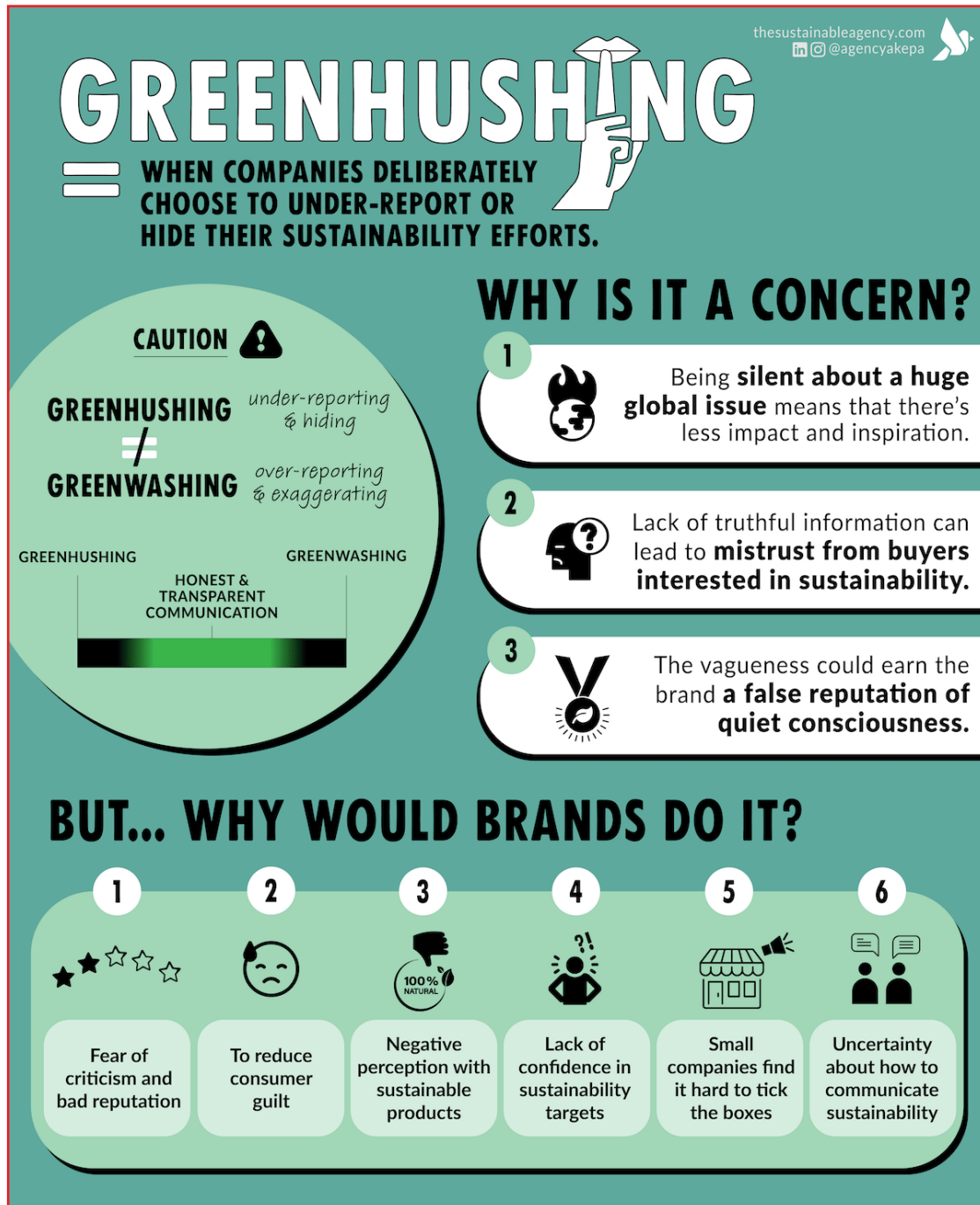
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reputational damage to brands. To avoid the negative impacts of criticism, these firms prefer to **hide** their achievements from **external audiences**.

- **Greenwashing** is a term used where a company makes **false or misleading statements** that their products/services are more **sustainable** than they are in reality.
- **Lack of Customer Demand:** Many consumers are either unaware of **carbon neutrality** or rarely ask for **carbon neutral products** when making purchasing decisions.
- Without the demand from customers, companies are reluctant to spend money on advertising their carbon neutrality.



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Why Firms Become Carbon Neutral Certified?

- **Competitive Advantage:** Carbon neutrality helps to **differentiate** themselves from **competitors**, attract talent and access finance at better terms.
- **Maintaining Social Salience:** Some firms seek carbon neutrality to maintain their **social salience** and build stronger relationships with stakeholders to improve **public perception** and stakeholder trust.
- **Ethical Commitment:** Ethically motivated firms pursue **carbon neutrality** because they believe it is the right thing to do.
 - These companies are driven by a **passion for environmental sustainability** and a **sense of responsibility** to protect the planet.

What are Concerns with Greenhushing?

- **Rising Global Trend:** A report by climate consultancy **South Pole** found that **58%** of companies surveyed are reducing their **climate communication** due to increased regulation and scrutiny.
- **Reduced Transparency:** When companies do not openly communicate their sustainability efforts, it becomes **difficult to assess** the progress they are making in reducing carbon emissions.
 - It reduces the ability to **track and verify** climate action progress.
- **Slowing Global Sustainability Transition:** If these businesses withhold information about their environmental efforts, it could **delay the adoption of sustainable practices**, weakening the overall global effort to combat climate change.
- **Domino Effect:** Fear of **backlash and retaliation** from regions or industries that oppose sustainability efforts **deter other businesses and companies** from adopting sustainable practices.
- **Impact on Consumers:** When companies are silent about their sustainability achievements, it may lead to consumers continuing to **buy products** that are **less sustainable**, inadvertently slowing down the demand for **eco-friendly** alternatives.

What can be Done to Address Greenhushing?

- **Highlighting Sustainability:** Companies should emphasise that environmental sustainability is a **journey and not a destination**.
 - Engaging their audiences and highlighting their efforts for continuous improvement can **reduce**

criticism and allay concerns about greenwashing accusations.

- **Stronger Regulations and Guidelines:** Better regulations can bring **clarity**, build trust and level the playing field. Eg. **EU's Greenwashing directive** bans misleading advertisements and provides consumers with **better product information**.
- **Consumer Education on Sustainability:** Increasing consumer awareness about sustainability can help **reverse negative perceptions** of green products and choose companies that are more sustainable.

57th Meeting of National Mission for Clean Ganga

Why in News?

Recently, the **57th Executive Committee (EC)** meeting of **National Mission for Clean Ganga (NMCG)** approved key projects in various states.

- These projects aimed towards the **conservation and cleanliness** of the **Ganga River**, and, for IEC (**Information, Education, and Communication**) activities during **Mahakumbh 2025**.

What are the Key Projects Approved during the Meeting?

- **Sewage Treatment Plants (STPs):** The EC approved **STPs** in Katihar and Supaul in Bihar and Aligarh, Uttar Pradesh.
 - STPs purify water by **removing sewage and contaminants**, making it suitable to be released into natural water sources.
- **Monitoring of STPs:** It includes the installation of an **Online Continuous Effluent Monitoring System (OCEMS)** for strengthening the **online continuous monitoring** of existing STPs in the Ganga River Basin.
- **Mahakumbh 2025 IEC Activities:** To enhance cleanliness and awareness during Mahakumbh 2025, an IEC (**Information, Education, and Communication**) activity-based project has been approved.
 - The project includes decorating the mela area and city through **'Paint My City'** and **mural art**.
- **PIAS Project:** The Committee also approved restructuring manpower under the **Pollution Inventory, Assessment, and Surveillance (PIAS)** project to enhance its effectiveness.

Note:



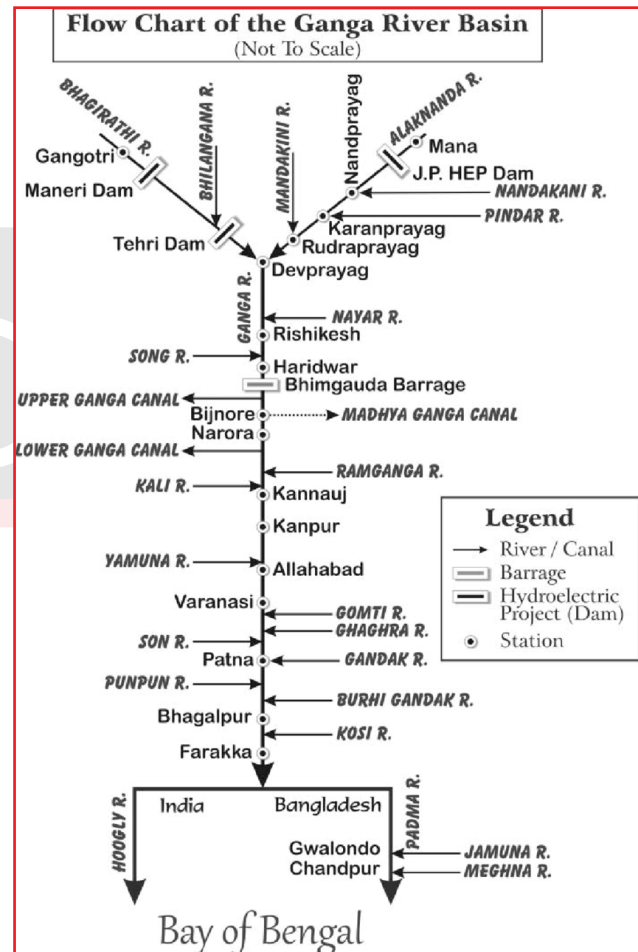
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- PIAS project is piloted by **Central Pollution Control Board (CPCB)** for the monitoring of industrial pollution.
- **SLCR Project:** The Committee approved key components of the '**Smart Laboratory for Clean River (SLCR) project**' to accelerate the rejuvenation of **small rivers** across the country.
- **Turtle and Gharial Conservation:** Approval was granted for the **freshwater turtle** and **gharial conservation** breeding program at the **Kukrail Gharial Rehabilitation Center** in Lucknow, Uttar Pradesh.

What are Key Facts About NMCG?

- **About:** It plays a crucial role in the **rejuvenation and protection** of the Ganga River.
 - It was registered as a society on 12th August 2011 under the **Societies Registration Act, 1860**.
- **Legal Framework:** It acted as the implementation arm of **National Ganga River Basin Authority (NGRBA)** which was constituted under the provisions of the **Environment (Protection) Act (EPA), 1986**.
 - After the dissolution of NGRBA in 2016, it is the implementation arm of **National Council for Rejuvenation, Protection and Management of River Ganga (National Ganga Council)**.
 - NGC ensures continuous adequate flow of water in the river and to prevent, control, and abate environmental pollution.
- **Management Structure of NMCG:** NMCG operates with a **two-tier management structure** and both are headed by the **Director General (DG) of NMCG**.
 - **Governing Council:** Oversees the general policies and direction of the NMCG.
 - **Executive Committee:** Authorised to approve projects with a financial outlay of up to **Rs 1,000 crore**.
- **Five-Tier Structure for Ganga Rejuvenation:** The Environment Protection Act (EPA), 1986 envisages a **five-tier structure** at **national, state and district levels** to effective management and rejuvenation of the Ganga River.
 - **National Ganga Council:** Chaired by the **Prime Minister of India**, this council serves as the **apex body for oversight**.
 - **Empowered Task Force (ETF):** Chaired by the **Union Minister of Jal Shakti**, this task force is responsible for focused action on river Ganga rejuvenation.

- **National Mission for Clean Ganga (NMCG):** Acts as the **implementing agency** for various projects aimed at Ganga cleaning and rejuvenation.
- **State Ganga Committees:** These committees operate at the state level to implement **specific measures** within their jurisdictions.
- **District Ganga Committees:** Established in each specified **district adjacent to the Ganga River and its tributaries**, these committees work at the grassroots level.



What is the Namami Gange Programme?

- **About:** It is an **integrated conservation mission** to accomplish the twin objectives of effective abatement of **pollution, conservation and rejuvenation** of National River Ganga.
 - It was approved as '**Flagship Programme**' by the Union Government in June **2014** with a budget outlay of **Rs. 20,000 Crore**.

Note:



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- Flagship programmes are those which address **major national concerns** on health, education, environment, irrigation, urban and rural development etc.
- **Key Pillars of the Programme:**
 - **Sewerage Treatment Infrastructure:** To manage **wastewater** effectively.
 - **River-Surface Cleaning:** Removing **solid waste** and **pollution** from the river's surface
 - **Afforestation:** Planting trees and restoring **green cover**.
 - **Industrial Effluent Monitoring:** To protect the river from **harmful industrial discharges**.
 - **River-Front Development:** Creating **public spaces** along the river to promote community engagement and tourism.
 - **Biodiversity:** Enhancing the river's **ecological health** and supporting diverse biological communities.
 - **Public Awareness:** Educating citizens about the importance of **river conservation**.
 - **Ganga Gram:** To develop the villages located along the main stem of river Ganga as **model villages**.
- **Integrated Mission Approach:** It emphasises the linkage of **economic development with ecological improvement**, showcasing a commitment to sustainable growth.
 - **Clean energy, waterways**, biodiversity conservation, and **wetland development** are identified as priority areas for ongoing and future initiatives.

Case Study of Thames' Recovery

- **Overview:** The River Thames was declared "**biologically dead**" in the 1950s, with extremely low **dissolved oxygen levels** caused by urban pollution, industrial waste, and **inadequate sewage systems**.
 - The river became a dumping ground for waste due to **increasing city populations and poorly managed sanitation**.
 - Prominent tributaries like the **Fleet**, which runs through central London, became notorious for their **foul odours**.
- **The Great Stink of 1858:** The culmination of the river's pollution issues occurred during the **hot summer of 1858**, known as the **Great Stink**.
 - High levels of human and industrial waste in the Thames prompted widespread **public health concerns**, leading to the implementation of a sewage network designed by civil engineer **Sir Joseph Bazalgette**.
- **Restoration Efforts:** By the 1970s, all sewage entering the Thames was **treated**, and regulations enacted between **1961 and 1995** improved water quality.
 - Established in 1989, **National Rivers Authority** played a crucial role in **monitoring** and maintaining water quality.
 - The installation of oxygenators, known as "**bubblers**," in the late 20th century significantly improved **DO levels**.
 - These devices **inject oxygen** into the water, supporting fish populations and overall aquatic health.

What is the National Ganga Council?

- **About National Ganga Council (NGC):** It was constituted in **2016**, under the provisions of the **Environment (Protection) Act, 1986**, following the dissolution of the **National Ganga River Basin Authority (NGRBA)**.
- **Objective:** The NGC aims to ensure the **rejuvenation, protection, and management** of the Ganga River and its tributaries through a comprehensive and coordinated approach
- **Ministry:** The **Ministry of Water Resources, River Development and Ganga Rejuvenation (MoWR, RD & GR)** is the nodal Ministry for the NGC.
- **Functions:** It **formulates policies** and strategies and **monitors the progress** of initiatives related to pollution abatement, ecological restoration, and sustainable management of river resources.
- **Governance:** It is chaired by the **Prime Minister** and the Chief Ministers of the States through which Ganga flows, viz., **Uttarakhand, Uttar Pradesh, Bihar, Jharkhand and West Bengal**, among others.

Note:



What are the Challenges in the Namami Gange Programme?

- **Lack of Data and Effective Monitoring:** Until 31st December, 2023, **457 projects** had been taken up. Of these, **only 280** have been completed and **“made operational”**. Most of these projects pertain to construction of STPs but there is **no data** which shows that the STPs are **actually functioning**.
- **Neglect of Tributaries:** Experts point out that **neglecting smaller rivers** has hampered overall cleanup efforts. For example, the **Gomti River** suffers from **low oxygen levels**, making it inhospitable for biodiversity.
- **Industrial Pollution:** Tanneries in **Kanpur** do not properly treat effluents, leading to high levels of harmful substances like **chromium** in discharged waste.
- **Cost Overruns:** **CAG** pointed out poor financial management for the programme in its report saying **only 8 - 63% of the funds** were utilised during **2014-15 to 2016-17**. The CAG expressed **strong concerns** regarding the Centre’s **excessive spending on media campaigns**.
- **Ongoing Environmental Threats:** **Illegal sand mining and riverfront development** projects require dredging the river that further interferes with the river’s flow.

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History

Highlights

- Merger of French and Portuguese Territories
- Napoleon's Ambition with India and his Rule
- Reforms in the Sati System

Merger of French and Portuguese Territories

Why in News?

On 1st November 1954, the French possessions in India were transferred to the Indian Union and Puducherry became a Union Territory.

- On 19th December, India will celebrate **Goa Liberation Day** to commemorate the state's liberation from Portuguese rule in 1961.
- With prolonged negotiations, nationalist movements and military action, India succeeded in integration of French and Portuguese territories in India.

Why France Insisted on Retaining its Colonies in India?

- **Post- World War II Reconstruction:** The French government believed that the empire would help revitalise the nation's post-war reconstruction using colonial resources and strengthening its global influence.
- **Brazzaville Conference (1944):** The Brazzaville Conference held in 1944 in French Congo led to the concept of the French Union.
 - It would integrate colonies more directly into the French political system, allowing them to remain part of France under a redefined relationship.
- **Democratic Rights: Article 27** of the constitution of the French Union offered its colonies the choice to either stay with France or become independent.
 - France was portrayed as a liberal and progressive colonial power which was used to prolong its hold over its colonies.
- **Cultural and Linguistic Influence:** Many residents in French India spoke French, not English, and felt culturally aligned with France rather than the new, English-speaking independent India.

- **Strategic and Political Calculations:** For the French government, whatever happened in India was to have its repercussions in their other colonies in Indochina and Africa. Consequently, their motive was to prolong the process of negotiation as much as possible.

Note: In India, French colonies comprised Pondicherry, Mahe, Chandernagore, Karaikal, and Yanam (Yanam).

Why Portugal Insisted on Retaining its Colonies in India?

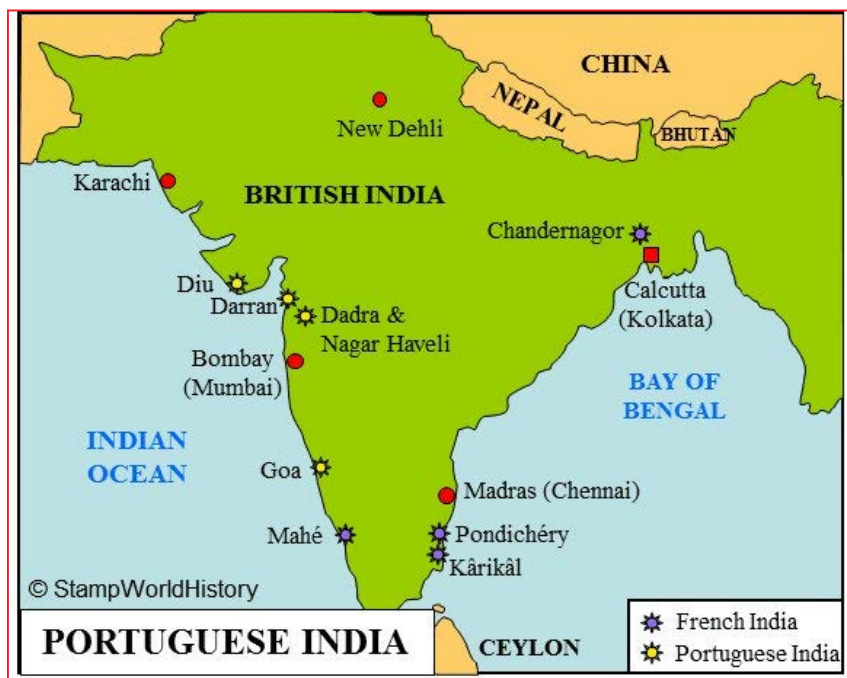
- **Historical Claim:** Portugal emphasised its centuries-long presence in Goa, having ruled the territory since the early 16th century unlike more recently established British or French colonies.
 - Goans substantially were voting for their representatives in the Portuguese Parliament from the 19th century.
- **Salazar's Dictatorial Stance:** Portuguese dictator Salazar viewed Portugal's colonies not as temporary possessions but as integral parts of the Portuguese state and declared Goa and other Indian territories as overseas provinces.
 - This stance made decolonisation unthinkable in his view, as it would be tantamount to the disintegration of Portugal's territorial integrity.
- **Geopolitical Leverage:** Portugal's membership in the North Atlantic Treaty Organisation (NATO) provided a deterrent against India's attempts to use force for Goa's liberation.
- **Strategic Significance of Goa:** Goa's strategic location on the western coast of India gave Portugal a foothold in South Asia and was viewed as a valuable asset for maintaining Portuguese influence in the region.
- **Catholic Population:** Portugal argued that the Goan Catholic population would not be safe in a predominantly Hindu-independent India.

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- This was a strategic move to gain **international sympathy** by implying that Portuguese withdrawal would expose religious minorities to persecution.



Note: The Portuguese colonies in India included Daman, Diu, Goa, Ilha de Anjediva, Nagar Haveli and Panikola.

How did the French and Portuguese Territories Merge with India Differently?

Aspect	French Colonies	Portuguese Colonies
Colonial power stance	Initially open to negotiation , focused on maintaining cultural ties	Refused to cede territory, insisted Goa was part of Portugal
Local population's reaction	Some favoured staying with France , others supported integration with India.	Strong nationalist sentiment, and long-standing resistance to Portuguese rule. E.g., Pinto rebellion against Portuguese rule in Goa in 1787
Role of nationalist movements	<p>Several nationalist groups supported integration with India. E.g.,</p> <ul style="list-style-type: none"> ➤ Students Congress of French India, the French Indian National Congress, Communist Party of French India sought merger with the Indian Union. ➤ In Chandernagore, the National Democratic Front (NDF) threatened a satyagraha if the French failed to propose a merger plan with India. ➤ In Mahe, the nationalist Mahajana Sabha threatened to set up a parallel government. 	<p>Strong freedom struggle dating back to the 18th century. E.g.,</p> <ul style="list-style-type: none"> ➤ Goan nationalist leader of the 19th century Francisco Luis Gomes continually fought against Portuguese rule. ➤ Tristão de Bragança Cunha, father of Goan nationalism, had formed the Goa National Congress at the Calcutta session of the Indian National Congress in 1928. ➤ National Congress (Goa) advocated for complete independence of Goa, Daman and Diu and its integration with the Indian Union. ➤ Azad Gomantak Dal (AGD), a revolutionary organisation, launched an underground resistance.

Note:

Key events	Key Events Include: <ul style="list-style-type: none"> ➤ In June, 1948, the French government held a plebiscite at Chandernagore (West Bengal) that voted for merger with India ➤ French Indian possessions in 1951 were marred by violent encounters in the borders that separated French from Indian territories. ➤ Merger in 1954; ratification in 1962 	Key Events Include: <ul style="list-style-type: none"> ➤ On 15th August 1954, a mass satyagraha was organised by the National Congress Goa, which was brutally suppressed by the Portuguese authorities. ➤ In 1955, batches of satyagrahis who raised the tricolour were fired upon and many were killed and arrested in the process. ➤ By July 1954, the Communist Party of India along with a few revolutionary groups forced the Portuguese out of Dadar and Nagar Haveli. ➤ Operation Vijay in 1961 by the Indian government led to the military annexation of Goa, Daman, and Diu
Mode of transfer	Negotiated settlement and political integration with India	Military intervention (Operation Vijay) and forced annexation
International influence	French Union concept influenced the process; concern over impact on French colonies in Africa and Indochina	Portugal under Salazar dictatorship; NATO alliance complicated India's response
Indian government's role	Diplomatic pressure, economic sanctions, and negotiations leading to peaceful integration	Diplomatic efforts failed; military force used after prolonged diplomatic stalemate.

Napoleon's Ambition with India and his Rule

Why in News?

Napoleon Bonaparte's deep interest in India, fueled his ambition to **undermine British dominance in the subcontinent**. He also had great influence on European, American and African politics.

What was Napoleon's Ambition with India (Orient)?

- **Oriental World:**
 - The term "Oriental" refers to the **Eastern world from the European perspective**, encompassing regions and cultures situated to the east of Europe.
 - It broadly denotes the continent of Asia, including countries such as **China, Japan, Indonesia, Thailand, Vietnam, and other East Asian nations**.
- **Napoleon's Ambition with the Orient:**
 - From an early age, Napoleon Bonaparte was deeply fascinated by the Orient, inspired by the conquests of **Alexander the Great in Asia**, which fueled his ambitions in the region.

- His **specific interest in India developed around 1798** during his Egyptian expedition, aimed at threatening Britain, France's primary adversary, and disrupting the growing British trade with India.
- Although **Napoleon suffered a significant defeat** by Britain in Egypt and **Tipu Sultan died in 1799**, his ambitions to challenge British control in India persisted, with various strategies devised against the backdrop of territorial struggles among the major European colonial powers, including **Britain, Russia, and France**.
- **Partners of Napoleon for Invasion of India:**
 - **Russia:**
 - Following his defeat in Egypt, Napoleon was approached by **Russian Tsar Paul I at the height of the "Great Game,"** a geopolitical struggle between Britain and Russia over control of Asian territories.
 - In 1801, the Tsar secretly proposed a joint **Franco-Russian invasion** of India to expel the British and the East India Company, with the plan to divide the conquered lands between Russia and France.

Note:

- Although **Napoleon declined the offer**, Tsar Paul I briefly attempted to proceed alone before **abandoning the mission following his assassination**.
- **Persia (Iran):**
 - Persia, strategically **located between Europe and India**, was of great importance to imperial powers. By 1800, Napoleon viewed Persia as a **key route to India and had French agents engaging with Persian Shah Fath Ali**.
 - In response, **Britain sent Captain John Malcolm to negotiate, resulting** in a commercial and political treaty with Persia in 1801.
 - The treaty prevented French influence in Persia and allowed Persia to wage war on Afghanistan if it threatened India.
 - **Britain excluded Russia from the treaty**, even though Russia posed the biggest threat to Persia at the time.
 - In **1801, Russia annexed Georgia** (territory claimed by Persia) and by 1804 had advanced further by capturing Erivan (modern Armenia).
- When the **Persian Shah sought British assistance** under the treaty due to fears of a Russian attack, his request was denied.
- Following this, Napoleon formalised the **Treaty of Finkenstein** with Shah Fath Ali, which guaranteed Persia's territorial integrity and offered French military support against Russia.
 - ◆ In exchange, Persia agreed to sever ties with Britain and provide future war assistance to French.
- Despite the French alliance with Persia, **Napoleon signed secret pact the Treaty of Tilsit with Russia in 1807**, dividing global influence.
 - France dominated Europe, while Russia had control over Asia. **This alliance undermined Persia**, which had sought French help to counter Russian aggression.
- After the secret pact, the Persian Shah sought a new treaty with the British, under which Britain promised military aid and annual subsidies to Persia.

Tipu Sultan's Relation with French

- **Tipu Sultan** and his father Hyder Ali allied with the French to fight the British in India.
 - He **used French officers to train his soldiers**, but he did not allow them to become a pressure group.
- Tipu Sultan was **inspired by the ideals of the French Revolution**. He adopted the name "**Citizen Tipu**" and became a **member of the Jacobin, a French club** that advocated liberty and equal rights.
 - He also planted the **Tree of Liberty in his capital, Srirangapatna**.

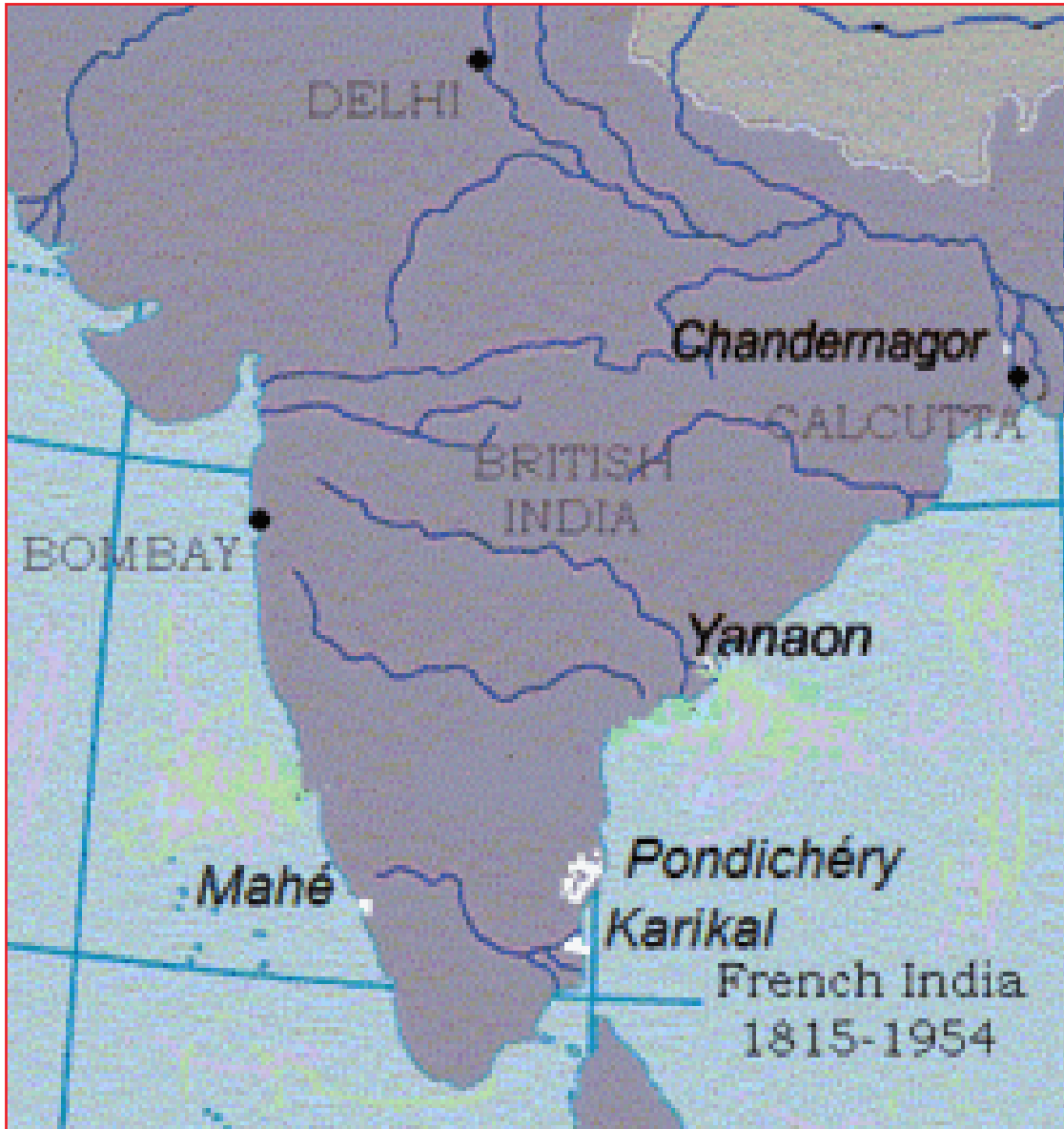
French in India

- The **first French factory in India** was established at **Surat in 1667** by Francois Caron which was **followed by the factory at Masulipattam** by Marcara in 1669.
- They occupied **Mahe in Malabar, Yanam in Coromandal (both in 1725) and Karikal in Tamil Nadu (1739)**.
- The arrival of **Dupleix as French governor in India in 1742** saw the beginning of **Anglo French conflict (Carnatic wars)** which resulted in their final defeat in India.
 - The decisive battle of the **Third Carnatic War** was won by the English in **January 1760 at Wandiwash (or Vandavasi) in Tamil Nadu**. After this the French ambition to build empire in India came to an end.
- On **1st November 1954**, the **French territories in India** were officially **integrated into the Indian Union**, and **Puducherry became a Union Territory**. This marked the **end of 280 years of French rule**.
 - But only in 1963 Puducherry became officially an integral part of India after the French Parliament in Paris ratified the Treaty with India.

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What are the Key Facts About Napoleon Bonaparte?

➤ Personal Life:

- Napoleon Bonaparte was **born in 1769** on the **Mediterranean island of Corsica**.
- In **1785**, at the age of 16, he **became a lieutenant in the artillery**.
- Following the outbreak of the **French Revolution**, Napoleon joined the army of the newly established government.
 - In **1804**, he **crowned himself emperor of France**.

➤ Role of Napoleon:

- **France:**
 - **Revolutionary Wars:** Napoleon initially rose to prominence as a military commander during the **French Revolutionary Wars**.
 - He led **campaigns against various European coalitions**, particularly in **Italy (1796)** and **Egypt (1798)**, establishing himself as one of France's greatest military strategists.

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- **Overthrow of Directory:** In 1799, Napoleon played a central role in **the coup d'état** that **overthrew the ineffective Directory government**, marking the end of the French Revolution and the beginning of the Consulate, where **he held power as First Consul**.
- **Napoleonic Wars (1803-1815):** After becoming Emperor (1804), Napoleon expanded French territorial control across much of Europe through a series of military campaigns known as the **Napoleonic Wars**.
 - He centralised power, modernised the administration, and implemented reforms in education, taxation, and infrastructure.
- **Establishment of the Napoleonic Code:** As a ruler, Napoleon introduced the **Napoleonic Code in 1804**, a **legal framework that reformed the French legal system**.
 - The code emphasised **equality before the law, individual rights, and secular government**. It remains the foundation of legal systems in many countries.
- **Continental System:** To weaken Britain economically, Napoleon imposed the **Continental System**, a trade blockade aimed at cutting off British commerce with mainland Europe. However, the policy had mixed results and hurt France's own economy.
- **Modernisation of France:** Napoleon modernised many aspects of French society, including the **education system, banking, and infrastructure**.
 - His reforms left a lasting impact on France and the broader European continent.
- **Europe:**
 - **Establishment of the Continental System (1806):** In November 1806, Napoleon instituted the Continental System, a **strategic blockade aimed at isolating Great Britain** by cutting off its trade and communication with continental Europe.
 - The primary objective was to **make Europe self-sufficient** and to cripple Britain's commercial and industrial strength.
 - Although his allies and family members did not adhere to the Continental System.
 - **Peninsular War (1808):** He waged war **to compel Portugal to comply with the Continental System**.
 - **In Spain, Napoleon deposed the Spanish king** and installed his brother Joseph on the throne. The **Spanish populace reacted with outrage**, inflaming nationalist sentiments.
- **Growth of Nationalism and Resistance:** Napoleon's actions, particularly in Spain, fueled **growing nationalist fervor across Europe**.
 - The **imposition of foreign rulers** and the **undermining** of local institutions, including the **Church**, spurred widespread resistance, contributing to the eventual collapse of his empire.
- **Out of Europe:**
 - **Egyptian Campaign (1798-1801):**
 - **Strategic Aims:** Napoleon's Egyptian Campaign sought to **weaken British influence in the Middle East and India** by gaining control of Egypt.
 - ◆ **Egypt was a vital link in Britain's trade route to its colonies**, especially India, making it strategically important for Napoleon's objectives.
 - **Defeat and Retreat:** Despite initial victories like the Battle of the Pyramids, the campaign ultimately failed.
 - ◆ Napoleon's fleet was destroyed by the British at the **Battle of the Nile (1798)**, and he was forced to abandon his army and return to France in 1799.
 - **Role in the Americas:**
 - **Louisiana Purchase (1803):** In a major geopolitical decision, Napoleon **sold the Louisiana Territory to the United States in 1803 for USD 15 million**.
 - The sale, known as the **Louisiana Purchase**, doubled the geographical size of the US and helped fund Napoleon's military campaigns in Europe.
 - ◆ The primary goal of the sale was to **strengthen the US against England**, as **Britain was an adversary to both the US and France**.
 - **Haiti and the Caribbean:** Napoleon attempted to reassert French control over its Caribbean colonies, particularly **Saint-Domingue (Haiti)**, the wealthiest French colony due to its sugar plantations.

Note:

- ◆ However, after a **slave rebellion** led by **Toussaint Louverture**, Haiti **declared independence in 1804**. Napoleon's efforts to regain control failed, and Haiti became the **first independent Black republic**.

How Napoleon's Policy led to his Downfall?

- **The Decline of the Empire:**
 - **Failed Russian Invasion (1812):** In 1812, Napoleon invasion of Russia, the Russian **strategy of scorched earth and harsh winter** conditions devastated Napoleon's Grand Army, leading to massive losses.
 - **The Sixth Coalition War (1813-1814):** After the failed Russian campaign, **European powers—Britain, Russia, Austria, and Prussia—**formed the Sixth Coalition and renewed attacks on Napoleon.
 - The decisive **Battle of Leipzig (1813)**, resulted in a **major defeat for Napoleon**, leading to the collapse of French control in Central Europe.
- **First Abdication and Exile to Elba (1814):**
 - Facing overwhelming defeat, he **abdicated the throne in April 1814 in favour of his son**.
 - Following his abdication, **Napoleon was exiled to the island of Elba**, off Italy's coast, where he was granted sovereignty and attempted to reform the administration.
- **Defeat at the Battle of Waterloo (1815):**
 - Napoleon's final bid to restore his empire culminated in **the Battle of Waterloo in June 1815**, where he **faced British and Prussian forces**. His newly formed army was decisively defeated, marking the end of his rule and the Napoleonic Wars.
- **Second Abdication and Exile to Saint Helena:**
 - **Napoleon was exiled to the remote island of Saint Helena**, far from Europe, to prevent any return to power. Napoleon lived under British supervision, **dictating his memoirs and reflecting on his legacy** while facing deteriorating health.
 - Historians suggest that **stomach cancer** may have caused his eventual death.
 - Despite his downfall, **Napoleon's legacy endures through his reforms**, especially the Napoleonic Code, which influenced global legal systems.
 - His military strategies remain a subject of study, and his impact on European politics and governance significantly shaped the **19th century**.

Reforms in the Sati System

Why in News?

Recently, 8 persons were **acquitted** in connection with **glorifying the act of Sati** by constructing **temples** in her name.

- The Sati was committed on **4th September 1987** in Rajasthan in the **Roop Kanwar case** which led to the enactment of the **Commission of Sati (Prevention) Act, 1987** by the Union government.

What are the Key Facts Regarding Punishments for Offences Under Sati Commission of Sati (Prevention) Act, 1987?

- **Attempt to Commit Sati:** **Section 3** of the Act states that anyone who attempts to **commit sati and takes any action towards it** may face up to one year of imprisonment, a fine, or both.
- **Abetment of Sati:** **Section 4** of the Act states that anyone who **abets sati, directly or indirectly**, will face life imprisonment and a fine. Eg. Convincing a widow or woman that committing sati would bring **spiritual benefits** for her or her deceased husband or improve the family's well-being.
- **Glorification of Sati:** **Section 5** of the Act states that **glorifying sati** is punishable by one to seven years of imprisonment and a fine of five to thirty thousand rupees.

What was the Sati System?

- **About Sati:** Sati refers to the practice of a **widow immolating herself** on the cremation pyre of her husband.
 - After the immolation, a **memorial stone** and often a **shrine** was erected for her and she was worshipped as a **Goddess**.
 - The first **epigraphical evidence** of Sati has been found from the **Eran Pillar Inscription of Bhanugupta**, Madhya Pradesh in **Eran in 510 AD**.
- **Steps Taken to Abolish Sati:**
 - **Mughal Empire:** In **1582**, emperor **Akbar** ordered his officials throughout the empire to **stop the immolation** of a woman if they saw that she was being forced.
 - He also offered **pension, gift and rehabilitation** to the widow to stop the practice

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- **Sikh Empire:** **Sikh Guru Amar Das** condemned the practice in the 15th–16th centuries.
- **Maratha Empire:** The Marathas **banned** sati in their region.
- **Colonial Powers:** The **Dutch, Portuguese** and the **French** also **banned** Sati in their colonies in India.
 - British Governor-General **William Bentinck** declared the practice of sati **illegal** and **punishable** by criminal courts under the **Bengal Sati Regulation, 1829**.
- **Other Legal Initiatives to Ameliorate Women's Position:**
 - **Female Infanticide:** The **Bengal regulations of 1795 and 1804** made **infanticide** illegal, equating it with murder.
 - An **1870 act** required parents to register **all births** and **mandated verification of female infants** for several years in areas where infanticide was secretly practised.
 - **Widow Remarriage:** With the efforts of **Pandit Ishwar Chandra Vidyasagar** the **Hindu Widows' Remarriage Act, 1856** was passed.
 - It **legalised the marriage of widows** and recognised children from such marriages as legitimate.
 - **Child Marriage:** **Age of Consent Act, 1891** forbade the marriage of girls below the age of 12.
 - **Child Marriage Restraint Act, 1929 (Sarda Act, 1929)** pushed up the marriage age to **18 and 14 for boys and girls**, respectively.
 - **Child Marriage Restraint (Amendment) Act, 1978** raised the age of marriage for girls from **15 to 18 years** and for boys from **18 to 21**.
 - **Education of Women:** **Calcutta Female Juvenile Society 1819** marked the beginning of a broader movement towards female education.
 - **Bethune School 1849** became a pivotal institution for women's education.

What was Raja Rammohan Roy's Role in Abolition of Sati?

- **Crusader Against Sati:** Raja Rammohan Roy is a key figure in **19th-century India's social reform movement**, known for his strong efforts to eliminate the practice of Sati.
- **Beginning of Activism:** Rammohan launched his **anti-Sati campaign in 1818**, driven by the belief that the practice was morally and ethically wrong.

- **Use of Sacred Texts:** He cited sacred texts to prove his contention that **no religion sanctioned** the burning alive of widows.
- **Rationality and Humanity:** He also appealed to the broader concepts of **humanity, reason, and compassion** to engage both the religious and secular communities in his fight against Sati.
- **Grassroots Activism:** He also **visited the cremation grounds**, organised vigilance groups, and filed counter-petitions to the government during his struggle against sati.
- **Bengal Sati Regulation, 1829:** Rammohan Roy's tireless efforts culminated in **Bengal Sati Regulation, 1829** which declared the practice of Sati a crime.

What are the Other Reforms Undertaken by William Bentinck (1828-1835)?

- **Administrative Reforms:**
 - **Indianisation of Administration:** Bentinck reversed Cornwallis's policy of excluding Indians from administrative roles by **appointing educated Indians as Deputy Magistrates and Deputy Collectors**, marking a significant move towards Indianising the government service.
 - **Land Revenue Settlement:** Lord William Bentinck **reviewed and updated** the **Mahalwari system** of land revenue in **1833**. It involved detailed surveys and **negotiations with large landholders and village communities**, leading to increased revenue for the state.
 - **Administrative Divisions:** Bentinck reorganised the **Presidency of Bengal** into **twenty divisions**, each overseen by a commissioner which enhanced administrative efficiency.
- **Judicial Reforms:**
 - **Abolition of Provincial Courts:** Bentinck abolished **provincial courts** and established a new hierarchy of courts to expedite judicial processes, including the establishment of a **Supreme Court in Agra** for civil and criminal appeals.
 - **Judicial Empowerment:** He created separate **Sadar Diwani Adalat and Sadr Nizamat Adalat at Allahabad**, improving judicial accessibility for the public.
 - **Reduction of Punishments:** Bentinck reduced the severity of punishments and **abolished inhumane practices**, such as flogging.

Note:



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- **Language of the Courts:** Bentinck ordered the use of **vernacular languages** in local courts.
 - In higher courts, Persian was replaced by **English**, and qualified Indians were appointed as **Munsiffs and Sadar Amins**.
- **Financial Reforms:**
 - **Cost-Cutting Measures:** Bentinck formed two committees, **military and civil**, to examine rising expenditures. Following their recommendations, he significantly **reduced the salaries and allowances** of officials and cut travel expenses, leading to substantial annual savings.
 - **Revenue Recovery:** He investigated land grants in Bengal, where many rent-free landholders were found to possess forged title deeds and enhanced the company's revenue.
- **Educational Reforms:** Influenced by **Macaulay**, Bentinck supported **English as the medium of instruction**.
 - The **Persian** language was **replaced by English** as the official language for the government of India in **1835** by the **English Education Act, 1835**.
- **Social Reforms:**
 - **Suppression of Thuggee:** He took decisive action against the **Thuggee system**, a criminal organisation that engaged in robbery and murder.
 - By the end of **1834**, Bentinck had successfully suppressed this practice, alleviating the fears of the populace.
 - **Support from Reformers:** His reforms were supported by notable figures like **Raja Rammohan Roy**, who actively campaigned for the abolition of Sati and advocated for social reform in India.

Birth Anniversary of Gandhi Ji and Shastri Ji

Why in News?

2nd October, every year is celebrated as the **birth anniversary** of **Mahatma Gandhi** and **Lal Bahadur Shastri**. Both of these leaders have played a monumental role in shaping our Nation.

What are the Key Facts About Mahatma Gandhi?

- **Birth:** 2nd October 1869 in Porbandar (Gujarat).

- **Brief Profile:** Lawyer, politician, social activist, and writer who became the leader of the nationalist movement against the British rule of India.
- **Books Written:** Hind Swaraj, My Experiments with Truth (Autobiography)
- **Death:** He was **shot dead by Nathuram Godse** on **30th January 1948**.
 - 30th January is observed as **Martyrs' Day**.
- **Role in India's Freedom Struggle**
 - **Leadership of the Indian National Congress (INC):** Mahatma Gandhi became a **prominent leader of the INC** in the early 20th century, **advocating for non-violent resistance and mass mobilization** to challenge British rule.
 - The **Belgaum session in 1924** was the only Congress session which was presided over by Gandhi Ji.
 - **Non-Cooperation Movement (NCM) (1920-1922):** Gandhi **launched the NCM in response to the Jallianwala Bagh massacre** and the repressive **Rowlatt Act**.
 - He **urged Indians to boycott** British institutions, goods, and honours, leading to widespread participation across the country.
 - Gandhi Ji was awarded the **Kaisar-i-Hind gold medal in 1915** for his service in the **Boer War** but **returned it in 1920** to protest the Jallianwala Bagh massacre.
 - **Salt March (1930):** Gandhi led the **Salt March** to the Gujarati coastal **town of Dandi**, protesting the British salt tax. This marked the beginning of the **Civil Disobedience Movement**.
 - **Quit India Movement (QIM) (1942):** Gandhi called for the QIM, demanding an end to British rule in India.
 - His slogan, **"Do or Die,"** inspired millions to **participate in protests, strikes, and acts of civil disobedience**, marking a significant escalation in the freedom struggle.
 - **Philosophy of Non-Violence:** Throughout his activism, Gandhi emphasized the principles of **Satyagraha (truth force) and Ahimsa (non-violence)**, advocating for peaceful protests and moral integrity.

Note:



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Mohandas Karamchand Gandhi



“The weak can never forgive. Forgiveness is the attribute of the strong.”

Brief Description

Birth: 2nd October 1869, Porbandar (Gujarat).

2nd October is observed as **International Day of Non-Violence**.

Profile: Lawyer, Politician, Social activist, Writer and led Nationalist Movement.

Father of the Nation (first called by Netaji Subhash Chandra Bose).

Ideology: Believed in the ideas of non-violence, Truth, Honesty, Care for Mother Nature, Compassion, Welfare of Downtrodden etc.

Political Mentor: Gopal Krishna Gokhale

Death: Shot dead by Nathuram Godse (30th January, 1948).

30th January is observed as **Martyrs' Day**

Nominated for the Nobel Peace Prize five times.



Gandhi in South Africa (1893-1915)

Used satyagraha against racist regime (Native Africans and Indians were discriminated).

Pravasi Bharatiya Divas (PBD) is celebrated every year on 9th January, to commemorate his return from South Africa.

Contribution in India's Freedom Struggle

Small-scale movements like Champaran Satyagraha (1917)—First Civil Disobedience, Ahmedabad Mill Strike (1918)—First Hunger Strike, and Kheda Satyagraha (1918)—First Non-Cooperation.

Nationwide Mass Movements: Against Rowlatt Act (1919), Non-Cooperation Movement (1920-22), Civil Disobedience Movement (1930-34), Quit India Movement (1942).

Gandhi-Irwin Pact (1931): Between Gandhi and Lord Irwin that marked the end of a period of civil disobedience.

Poona Pact (1932): Between Gandhi and **B.R. Ambedkar**; this abandoned the idea of separate electorates for the depressed classes (Communal Award).



Books Written

Hind Swaraj, My Experiments with Truth (Autobiography)

Weeklies

Harijan, Navjivan, Young India, Indian Opinion.

Gandhi Peace Prize

is given by India for social, economic, and political transformation through Gandhian methods.

“Happiness is when what you think, what you say, and what you do are in harmony.”


“You must not lose faith in humanity. Humanity is an ocean; if a few drops of the ocean are dirty, the ocean does not become dirty.”

Note:

- His approach not only influenced the Indian independence movement but also inspired civil rights movements worldwide such as **Nelson Mandela** and **Martin Luther King Jr.**
- 2nd October is also observed as the **International Day of Non-Violence**, established by the **United Nations General Assembly** on 15th June 2007.

What are the Key Facts About Lal Bahadur Shastri?

- **Birth:** He was born on **2nd October 1904** in **Mughalsarai**, Uttar Pradesh.
- **Brief Profile:** He was the **second Prime Minister of India**, known for his leadership and his slogan **"Jai Jawan Jai Kisan,"** emphasising the importance of both soldiers and farmers in nation-building.
- **Death:** He died on **11th January 1966**, in **Tashkent, Uzbekistan**.
 - He was the **first person to be posthumously awarded the Bharat Ratna (1966)**.



Lal Bahadur Shastri
The Man of Peace

Brief Description

- ▲ **Birth:** 2nd October 1904, Mughalsarai (Uttar Pradesh)
- ▲ **Kashi Vidyapeeth:** Degree in Philosophy and Ethics
- ▲ **Famous Slogan:** 'Jai Jawan Jai Kisan'
- ▲ **Bharat Ratna (1966):** Awarded Posthumously
- ▲ **Lifetime Member:** Lok Seva Mandal (founded by Lala Lajpat Rai)

Political Journey

- ▲ **1928:** Joined Indian National Congress
- ▲ **1930:** Joined Freedom Movement

- ▲ **1935:** General Secretary of UP Pradeshik Congress Committee (PCC)
- ▲ **1940:** Participated in **Individual satyagraha** and sent to prison
- ▲ **1942:** Released from jail; Participated in the **Quit India Movement**

Post-independence Journey

- ▲ **1952:** Minister of Railways and Transport
- ▲ **1959:** Minister of Commerce and Industry
- ▲ **1961:** Minister of Home Affairs

Prime Minister of India (1964-66)

- ▲ **1964:** Second Prime Minister of the Republic of India
- ▲ **1964:** Took initiative of **White Revolution**
- ▲ **1965:** Established **National Dairy Development Board (NDDB)**
- ▲ **1965:** Took initiative for **Green Revolution**

Wars During His Tenure

- ▲ **1962:** War with China
- ▲ **1965:** War with Pakistan

Death

- ▲ **11th January 1966:** Died in Tashkent, Uzbekistan
 - ▲ Just one day after signing the peace treaty to end the 1965 war with Pakistan
- ▲ **1978:** A Book '**Lalita ke Aansoo**' was published by M.L Verma
 - ▲ Tragic story of his death is narrated by his wife Lalita Devi
- ▲ **1977:** Raj Narain committee: To look into the mysterious death of Shastri ji
- ▲ **Vijay Ghat:** Shastri ji's resting place (Delhi)
- ▲ **IAS training institute, Mussoorie:** Named as Lal Bahadur Shastri National Academy of Administration (LBSNAA)

"Discipline and united action are the real source of strength for the nation."

➤ His Role in Nation Building:

- **Leadership in the 1965 Indo-Pak War:** Lal Bahadur Shastri effectively led India during the 1965 war, boosting national morale.
- **Green Revolution:** Shastri played a **key role in promoting the Green Revolution**, which helped **India increase agricultural production** and move towards self-sufficiency in food grains, addressing the nation's food security challenges.
- **National Integration:** worked to foster national unity and integration by promoting harmony among diverse regions, languages, and cultures.
 - While simultaneously encouraging policies of industrialization and self-reliance to strengthen India's economic growth and reduce dependence on foreign imports.
- **Civil Services:** Shastri emphasized the **need for civil servants to maintain high ethical standards, transparency, and dedication**, ensuring that the administration remained free from corruption and was committed to public service.

Note:

- Eg. He resigned as Rail Minister in 1952, taking moral responsibility for a rail accident that resulted in casualties.

Bhagat Singh



bhagat singh

Also known as Shaheed-e-Azam (Great Martyr)

● Brief Description

- **Birth:** 28th September 1907, Banga, Punjab, British India (now in Pakistan)
- **Jallianwala Bagh Massacre (1919):** At age 12, witnessed the massacre; it ignited his patriotism
- **Organizations:**
 - 1924 – Joined Hindustan Republican Association (HRA)
 - Renamed **Hindustan Socialist Republican Association (HSRA)** in 1928.
- **Key Literary Contributions:**
 - "Why I Am an Atheist"
 - "The Jail Notebook and Other Writings"

● Major Actions

- 1928 – Assassinated J.P. Saunders (Lahore Conspiracy Case) to avenge Lala Lajpat Rai's death
- 1929 – Bombed Central Legislative Assembly (with B.K. Dutt)

● Arrest & Trial

- Arrested in 1929 – Assembly bombing
- Sentenced to death (Lahore Conspiracy Case)
- Hanged alongside Sukhdev and Rajguru (23rd March 1931)

23rd March – Martyrs' Day

● Relevance of Bhagat Singh's Ideologies

Key Ideals	Description
Universal Brotherhood	Advocated peace, equality, and global unity
Communal Harmony	Strongly opposed religious conflicts and divisions
Youth in Politics	Encouraged students to actively participate in politics
Empowerment of Marginalized	Championed the dismantling of caste hierarchies
Revolutionary Spirit	Challenged oppression—an inspiration for modern movements





Note:

Art and Culture

Highlights

- 5 New Classical Languages and Change in Criteria

5 New Classical Languages and Change in Criteria

Why in News?

The Union Cabinet has approved the recognition of five more languages as “classical,” expanding the nation’s list of culturally significant tongues.

- Other than 6 languages, **Marathi, Pali, Prakrit, Assamese, and Bengali** have been included in the prestigious category.

What is a Classical Language?

➤ About:

- In **2004**, the Indian government began designating languages as “Classical Languages” to acknowledge and preserve their ancient legacy.
- The **11 classical languages** of India serve as custodians of the nation’s rich cultural heritage, representing key historical and cultural milestones for their communities.

Sl. No.	Languages	Year of Declaration
1.	Tamil	2004
2.	Sanskrit	2005
3.	Telugu	2008
4.	Kannada	2008
5.	Malayalam	2013
6.	Odia	2014

- Indian **classical languages** (Shastriya Bhasha) are languages with a **rich historical legacy, profound literary traditions, and distinctive cultural heritage**.

➤ Significance:

- These languages have played a **key role in the intellectual and cultural evolution** of the region.
- Their texts provide valuable insights into diverse fields such as **literature, philosophy, and religion**.

- **Criteria:** It was revised in **2005 and 2024** on the recommendations of **Linguistic Experts Committees (LEC)** under Sahitya Akademi.

- Revised criteria in 2005 are as follows:

- **High Antiquity:** Early texts and recorded history spanning 1,500–2,000 years.
- **Ancient Literature:** Possession of a **body of ancient literature/texts** considered valuable heritage by generations.
- **Knowledge Texts: Presence of an original literary tradition** not borrowed from another speech community.
- **Distinct Evolution:** The **classical language and literature are distinct from modern**, there can also be a discontinuity between the classical language and its later forms or its offshoots.

- In **2024**, criteria for declaring a language as classical were revised.

- Under which “**Knowledge Texts: Presence of an original literary tradition not borrowed from another speech community**” was replaced by “**Knowledge texts, especially prose texts in addition to poetry, epigraphical and inscriptional evidence**”.

➤ Benefits:

- Languages designated as ‘classical’ receive various **government benefits aimed at promoting their study and preservation**.
- **Two international awards** are given annually to scholars who have made notable contributions to the research, teaching, or promotion of classical Indian languages.
- These are the **Presidential Award of Certificate of Honour** and **the Maharshi Badrayan Samman Award**.
- The **University Grants Commission (UGC)** supports the creation of Professional Chairs in central universities and research institutions to focus on classical Indian languages.

Note:



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- To safeguard and promote these linguistic treasures, government established the **Center of Excellence for Studies in Classical Languages** at the **Central Institute of Indian Languages (CIIL)** in Mysore.

What are the Other Provisions to Promote Language?

- **Eighth Schedule:** To promote the progressive use, enrichment and promotion of the language. Consists of 22 languages:

Classical Languages of India

Indian classical languages have a long history and a rich, unique, and distinctive literary legacy.

- **Linguistic Experts Committee (LEC)** – Constituted in 2004 by the Ministry of Culture under Sahitya Akademi to evaluate languages for classical status.

Classical Languages

- Tamil - 2004
- Sanskrit - 2005
- Telugu - 2008
- Kannada - 2008
- Malayalam - 2013
- Odia - 2014
- Marathi - 2024
- Bengali - 2024
- Assamese - 2024
- Prakrit - 2024
- Pali - 2024

All the Classical Languages are mentioned in the Eighth Schedule of the Indian Constitution except Prakrit and Pali

Criteria for Classical Languages (set in 2005)

1. High Antiquity: Early texts/recorded history over a period of 1500- 2000 years
2. Possession of a Body of Ancient Literature/Text: Considered valuable heritage by generations
3. Knowledge Texts: Presence of an original literary tradition not borrowed from another speech community
4. Distinction/Discontinuity: Classical Languages and literature could be distinct from its current form or could be discontinuous with later forms of its offshoots

3rd criterion was revised in 2024 to "Knowledge texts, especially prose texts in addition to poetry, epigraphical and inscriptional evidence"

Significance of Declaring Classical Language

- Two international awards given annually to scholars of classical Indian languages
- Center of Excellence for Classical Language Studies established

Note:

- Assamese, Bengali, Gujarati, Hindi, Kannada, Kashmiri, Konkani, Malayalam, Manipuri, Marathi, Nepali, Oriya, Punjabi, Sanskrit, Sindhi, Tamil, Telugu, Urdu, Bodo, Santhali, Maithili and Dogri.
- **Article 344(1)** provides for the **constitution of a Commission** by the President on the **expiration of five years** from the commencement of the Constitution for the progressive use of Hindi .
- **Article 351** provides that it shall be the **duty of the Union to promote the spread of the Hindi language**
- **Other Efforts to Promote Languages:**
 - **Project ASMITA:** The **project ASMITA** aims to produce 22,000 books in Indian languages within five years.
 - **New Education Policy (NEP):** The **NEP policy** aims to turn Sanskrit universities into multi-disciplinary institutions.
 - **Central Institute of Indian Languages (CIIL):** This institute works to **promote four classical languages: Kannada, Telugu, Malayalam, and Odia.**
 - **Central Sanskrit Universities Bill, 2019:** It granted Central status to three deemed Sanskrit universities: the Rashtriya Sanskrit Sansthan and Shri Lal Bahadur Shastri Rashtriya Sanskrit Vidyapeeth in Delhi, and the Rashtriya Sanskrit Vidyapeeth in Tirupati.

■■■



Note:

Geography

Highlights

- Chagos Archipelago and Diego Garcia Island
- Hirakud Dam Canal System Renovation
- Typhoons in Southeast Asia
- MP-Rajasthan MoU on PKC-ERCP Link Project
- Global Warming Affecting Weather Forecast

Chagos Archipelago and Diego Garcia Island

Why in News?

Recently, the **United Kingdom (UK)** agreed to cede **sovereignty** of the strategically important **Chagos Archipelago** to Mauritius.

- However, the UK will continue to exercise **sovereign rights** over **Diego Garcia** island.

What are the Key Facts Regarding the Chagos Archipelago?

- **Geography of the Chagos Archipelago:** It consists of **58 islands** and is located approximately **500 km south** of the Maldives in the **Indian Ocean**.
- **History of the Chagos Archipelago:** The **French** were the **first to colonize** Mauritius along with the **Chagos Islands** in **1715**.
 - In the late **18th century**, the French brought in **slave labour** from **Africa and India** to work in newly established **coconut plantations**.
 - However, the **UK** took control of the region in **1814** after the fall of France's **Napoleon Bonaparte**.
 - In **1965**, the UK constituted the **British Indian Ocean Territory (BIOT)**, of which the Chagos Islands were a central part.
- **Mauritius' Claims Over Chagos:** Chagos was attached to **Mauritius**, another British colony in the Indian Ocean, for **administrative purposes**.
 - When **Mauritius gained independence** in **1968**, **Chagos** remained with **Britain**, which gave **Mauritius** a **3 million pound grant** for the "detachment."

- **Strategic Importance of Chagos and Diego Garcia:** In **1966**, Britain signed an agreement with the **United States** to use the BIOT for military purposes.
 - Subsequently, the **plantation** on Diego Garcia was **shut down** and it became unlawful for a person to enter or remain in Diego Garcia without a permit.
 - Diego Garcia, the largest in the archipelago, became a fully operational military base in **1986**.
 - It was a key location in the US overseas "**war on terror**" operations following **al-Qaeda's September 11 attacks** on the US in 2001.
- **International Pressure on the UK:** In 2019, the **International Court of Justice (ICJ)** issued an **advisory opinion** that asked the United Kingdom to **unconditionally withdraw** its colonial administration from the area within **six months**.
 - The ICJ ruled that the **1965 detachment** of Chagos from Mauritius before its independence was **illegal**.

What are the Key Details of the UK-Mauritius Agreement?

- **Sovereignty Over Chagos:** The deal grants Mauritius **full sovereignty** over the archipelago except **Diego Garcia** island.
- **Resettlement of Chagossians:** Mauritius can now **resettle people** on the Chagos Archipelago, except Diego Garcia, where **Britain evicted 2,000 islanders** for a US naval base.
- **Trust Fund:** The UK has also promised to create a **new trust fund** for the benefit of the people of Chagos.

Note:



Hirakud Dam Canal System Renovation

Why in News?

The six-decade-old canal system connected to **Odisha's Hirakud Dam** is set for a major renovation.

- This initiative aims to modernise irrigation infrastructure, reduce water wastage, and enhance agricultural productivity, providing much-needed support to farmers in the region.

What are the Key Objectives of the Renovation?

- **Need for Renovation:** Many canal infrastructures, including the Bargarh and Sasan main canals, are in disrepair.
 - Existing **earthen canals** cause significant water loss, reducing irrigation efficiency.
 - **Water seepage** makes some farmland unsuitable for farming, complicating challenges for local farmers.
- **Key Features of the Renovation:** Conversion of all **earthen water courses to concrete paths** for improved water distribution and management.
 - The project will enhance water availability in tail-end areas for better farmer access.
- **Impact on Local Farmers:** Aims to reduce the gap between irrigation potential and actual usage. Enhanced irrigation capabilities will benefit farmers and increase crop yields.

What are the Key Facts About the Hirakud Dam?

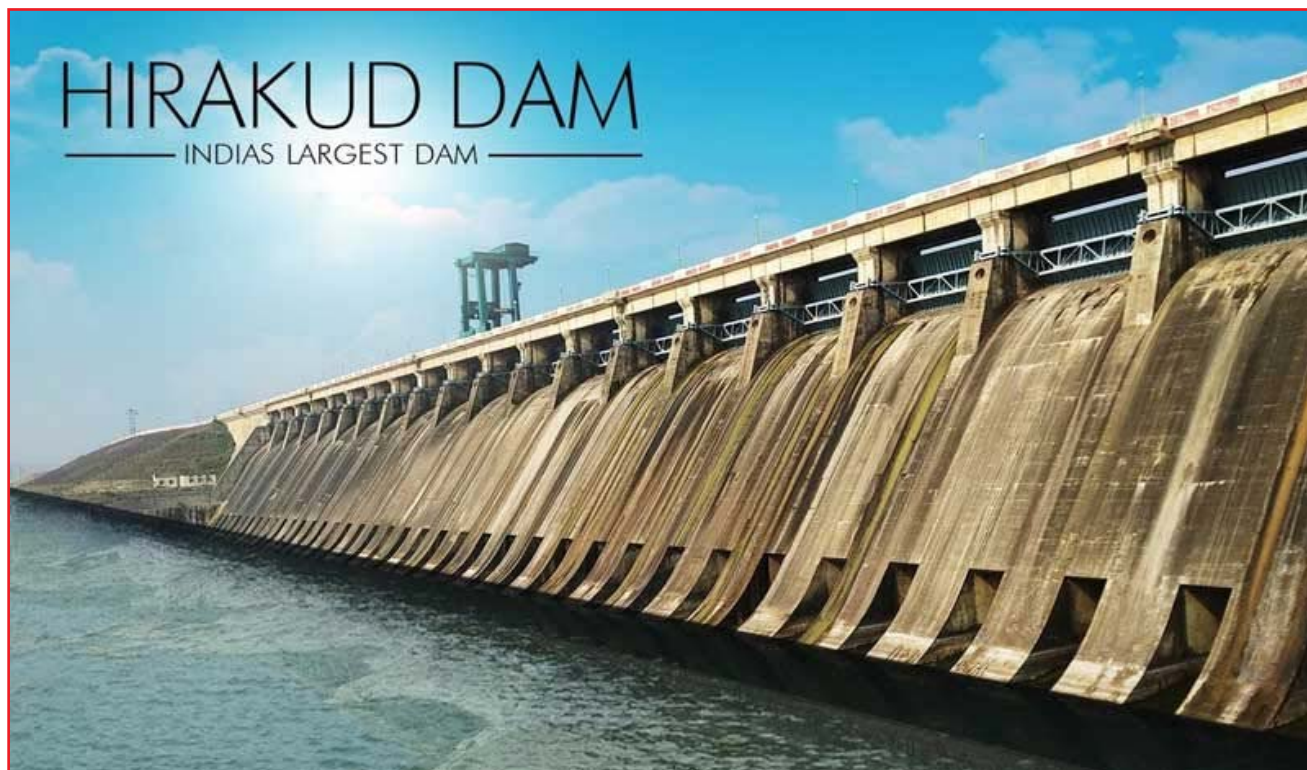
- **About:** It is a multipurpose scheme conceived by **Er. M. Visveswaraya** in **1937**, after a recurrence of devastating floods in the Mahanadi River.
 - Built around 1952-53, the Hirakud Dam is one of India's first major multipurpose river valley projects post-independence.

Note:



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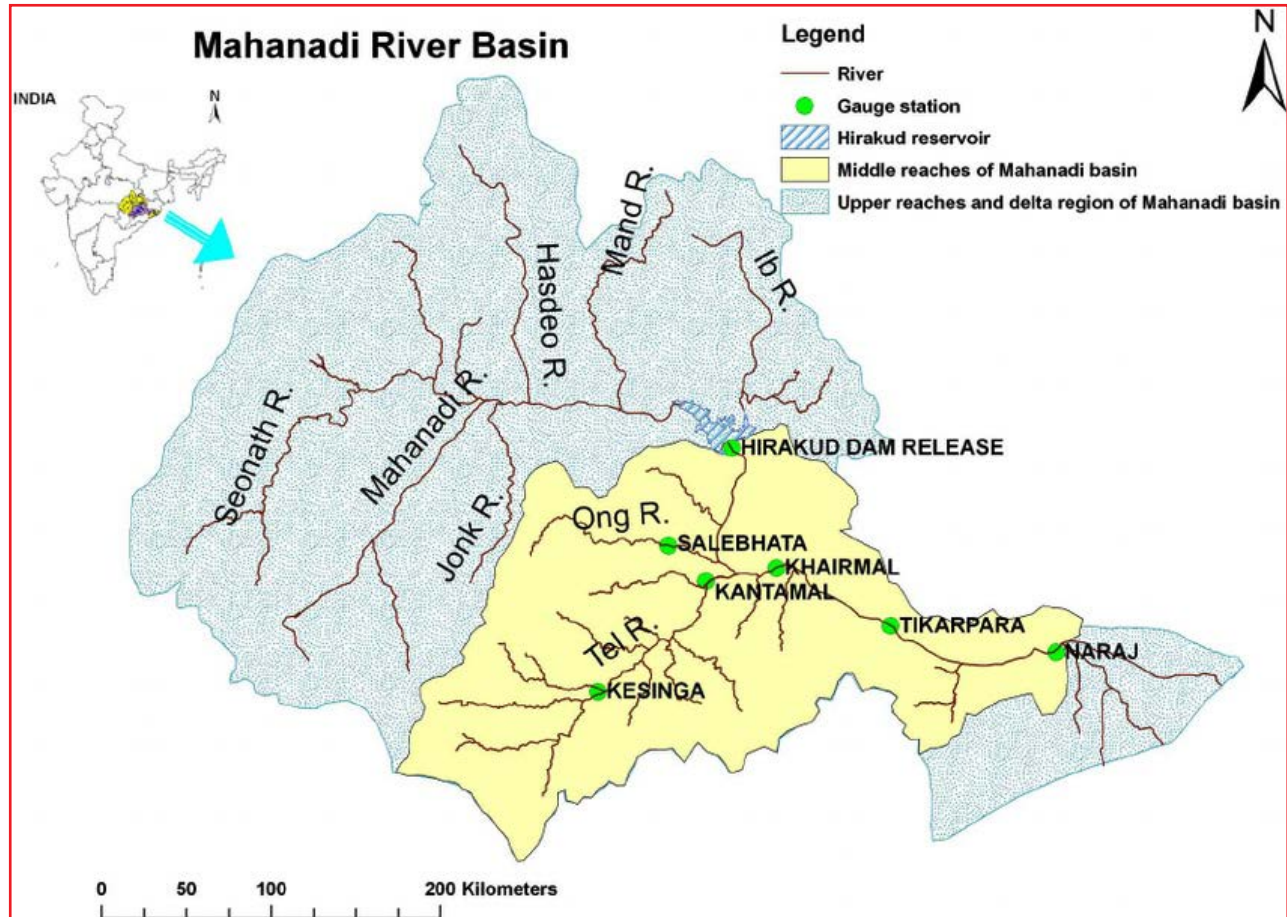
- It holds the title for the **longest major earthen dam globally**, stretching 25.8 km across the **Mahanadi River**.
- It was inaugurated by the then Prime Minister **Jawaharlal Nehru** in 1957.
- Hirakud Dam forms the Hirakud Reservoir, also known as **Hirakud Lake**, is one of the largest **artificial lakes** in Asia. Hirakud Reservoir was declared a **Ramsar site** in 2021.
- **Purpose and Benefits:** The dam has an installed capacity of 359.8 MW for **hydroelectric power generation**, contributing to the region's energy supply.
 - The reservoir irrigates 436,000 hectares of land, benefiting farmers in the region.
- **Cattle Island:** It is located in one of the extreme points of Hirakud Reservoir. It is inhabited by a large herd of wild cattle.



Mahanadi River

- **Origin:** The river originates from **Sihawa range of hills** in the Dhamtari district of Chhattisgarh.
- **Mouth:** It flows into the Bay of Bengal at False Point, Jagatsinghpur in Odisha.
- **Tributaries:**
 - **Left Bank:** Seonath, Mand, Ib, Hasdeo, and Kelo.
 - **Right Bank:** Ong, Parry, Jonk, and Telen.
- **Basin and Geography:** The Mahanadi basin extends over states of Chhattisgarh and Odisha and comparatively smaller portions of Jharkhand, Maharashtra and Madhya Pradesh.
 - It is bounded by the Central India hills on the north, by the **Eastern Ghats on the south** and east and by the **Maikala range on the west**.
 - The Mahanadi is one of the major rivers of the country and among the peninsular rivers, in water potential and flood producing capacity, it ranks second to the **Godavari**.

Note:



Typhoons in Southeast Asia

Why in News?

According to a **study published** in the journal **Climate and Atmospheric Science** in July 2024, **typhoons** are occurring frequently in **Southeast Asia** due to the rising global temperatures.

What are Typhoons?

- A typhoon is a form of cyclone that has **wind speeds of 119 kmph** and above and develops over **warm ocean waters near the equator**.
 - When warm, moist air rises from the ocean surface, it creates a low-pressure area.
- **Cyclones** are **rapid inward air circulation** around a low-pressure area.
 - The air circulates in an **anticlockwise direction in the Northern hemisphere** and **clockwise in the Southern hemisphere**.

Cyclones Type	Location
Typhoon	China Sea and Pacific Ocean
Hurricane	West Indian islands, Caribbean Sea, Atlantic Ocean
Tornado	Guinea lands of West Africa, southern USA
Willy-willies	North-western Australia
Tropical Cyclone	Indian Ocean Region

Note:

Recent Typhoons in Southeast Asia

- **Typhoon Yagi:** It is the strongest tropical cyclone Asia has encountered till September 2024 and the second most powerful globally after **Hurricane Beryl (Atlantic Ocean)**.
 - It has caused severe damage across Southeast Asia, affecting the **Philippines, China, Laos, Myanmar, Thailand, and particularly Vietnam.**
- **Typhoon Shanshan:** It has hit Japan bringing heavy rains and strong winds.
- **Typhoon Bebinca:** It has top wind speeds of 151 kph (94 mph) near its eye, and reached category 1 storm on the **Saffir-Simpson Hurricane Wind Scale.**

Why are Typhoons Occurring Frequently in Southeast Asia?

- **Rising Sea Surface Temperatures:**
 - Due to **global warming**. Warmer waters in the Pacific Ocean provide more energy for the formation and intensification of typhoons.
 - Tropical storms draw their strength from **warm, moist ocean air, and the rising sea surface temperature leads to more frequent and severe storms.**
- **Changes in Atmospheric Circulation Patterns:**
 - Shifts in atmospheric circulation patterns, such as **the weakening or alteration of the Walker Circulation** (which influences the Pacific Ocean), can affect the frequency and trajectory of typhoons in Southeast Asia.
- **El Niño and La Niña Events:**
 - The **El Niño-Southern Oscillation (ENSO) cycle** significantly impacts typhoon frequency.
 - During **El Niño years**, the **warmer waters of the central and eastern Pacific shift westward**, which can increase typhoon activity in Southeast Asia.
 - **La Niña years** also contribute to this by **enhancing cyclone activity in the Western Pacific.**
- **Increased Moisture in the Atmosphere:**
 - Rising global temperatures lead to more **evaporation from the oceans, increasing moisture content in the atmosphere.** This moisture fuels stronger and more frequent typhoons as it enhances the storm's intensity and precipitation rates.

- **Geographical Location of Southeast Asia:**
 - The region lies in the **path of the Pacific Ocean's warm currents** and is a **natural hotspot** for typhoon formation.
 - The geography of Southeast Asia, with its **long coastlines and proximity to the Western Pacific**, makes it highly vulnerable to tropical cyclones.
- **Marine Heat Waves:**
 - More frequent **marine heat waves**, driven by climate change, are causing extreme warming events in the ocean.
- **Weaker Land-Sea Temperature Differences:**
 - Climate change is also altering the **temperature gradient between land and sea.**
 - **Weaker differences** between the land and the sea can lead to **slower storm dissipation**, which makes the typhoons last longer and impact areas more severely.
- **Urbanisation and Environmental Degradation:**
 - **Rapid urbanization, deforestation, and destruction of coastal ecosystems, such as mangroves**, which serve as natural buffers, can exacerbate the effects of typhoons.

MP-Rajasthan MoU on PKC-ERCP Link Project

Why in News?

Recently, a **Memorandum of Understanding (MoU)** was signed between **Rajasthan and Madhya Pradesh** to implement the **Modified Parbati-Kalisindh-Chambal Eastern Rajasthan Canal Project (PKC-ERCP)** river link project.

- This project is being implemented as part of the Government of India's **National Perspective Plan (NPP)** for the interlinking of rivers (ILR).

What is the Modified PKC-ERCP?

- **Parbati-Kalisindh-Chambal (PKC):** It is a river-linking initiative designed to **divert surplus water** from the **Parbati, Newaj, and Kalisindh** rivers to the **Chambal River**.
 - It is part of the 30 links in the **National Perspective Plan (1980)**, formulated by the **Central Water Commission** and the **Union Ministry of Irrigation.**

Note:

- It aims to **provide water for domestic use, optimise water** resources within the Chambal basin, and benefit regions in **Madhya Pradesh and Rajasthan**.
- **Rivers Involved in the Project:**
 - **Chambal River:**
 - **Origin:** Singar Chouri Peak, Vindhya Mountains, Indore, Madhya Pradesh.
 - **Major Tributaries:** Banas, Kali Sindh, Sipra, Parbati.
 - **Parvati River:**
 - **Origin:** Vindhya Range, Sehore District, Madhya Pradesh.
 - **Significant Tributaries:** None.
 - **Kali Sindh River:**
 - **Origin:** Bagli, Dewas District, Madhya Pradesh.
 - **Major Tributaries:** Parwan, Newaj, Ahu.
- **Eastern Rajasthan Canal Project (ERCP):** The ERCP was proposed by Rajasthan in 2019 to optimise water resources.
 - It aims to **facilitate intra-basin water transfer within the Chambal basin**.
 - It aims to harness **surplus monsoon water** from the **Kalisindh, Parvati, Mej, and Chakan** sub-basins and divert it to the water-deficient sub-basins of **Banas, Gambhiri, Banganga, and Parbati**.
 - This initiative will supply **drinking and industrial water** to **13 districts in eastern Rajasthan**, including Alwar, Bharatpur, Sawai Madhopur, and Jaipur.
 - The ERCP aims to establish a **network of water channels** that will span **23.67% of Rajasthan's area** and **benefit 41.13% of the state's population**.
 - **Benefits:**
 - The ERCP is expected to create an **additional command area of 2 lakh hectares** and provide **irrigation to 4.31 lakh hectares**.
 - It aims to **improve groundwater levels** in rural Rajasthan, enhancing socio-economic conditions.
 - The project also supports the **Delhi-Mumbai Industrial Corridor (DMIC)** by ensuring sustainable water sources to boost industrial growth and attract investment.

➤ **Modified PKC-ERCP:**

- The **Modified Parbati-Kalisindh-Chambal-ERCP (PKC-ERCP) Link Project** is an inter-state project that **merges the PKC link with the Eastern Rajasthan Canal Project (ERCP)**.
 - This integration addresses issues like water sharing, cost-benefit distribution, and water exchange between the concerned states.

➤ **Need of Such Project:**

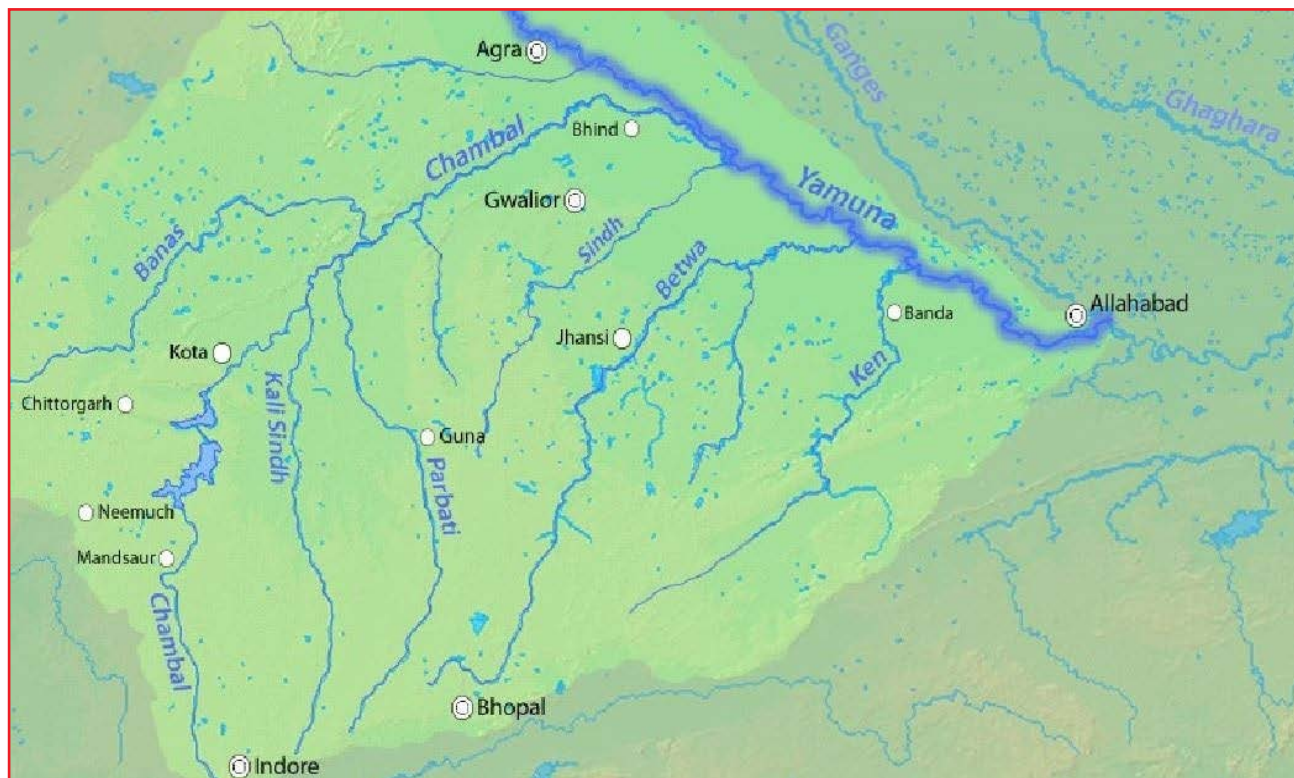
- Rajasthan, the **largest state in India** with a **geographical area of 342.52 lakh hectares (10.4% of the country's total)**, has **only 1.16% of the nation's surface water** and **1.72% of its groundwater resources**, as reported by the Water Resources Department of Rajasthan.

Chambal River

- **About:** It originates at Janapav, south of Mhowtown, near Manpur Indore, on the south slope of the **Vindhya Range** in Madhya Pradesh. From there, it flows in the North direction in Madhya Pradesh for a length of about 346 km and then follows a north-easterly direction for a length of 225 km through Rajasthan.
 - It enters UP and flows for about 32 km before joining the **Yamuna River** in Etawah District.
 - It is a rainfed river and its basin is bounded by the Vindhyan mountain ranges and the Aravallis. The Chambal and its tributaries drain the Malwa region of northwestern Madhya Pradesh.
 - The Hadoti plateau in Rajasthan occurs in the upper catchment of the Chambal River to the southeast of the Mewar Plains.
- **Tributaries:** Banas, Kali Sindh, Sipra, Parbati, etc.
- **Main Power Projects/ Dam:** Gandhi Sagar Dam, Rana Pratap Sagar Dam, Jawahar Sagar Dam, and Kota Barrage.
- The **National Chambal Sanctuary** is located along the Chambal river on the tri-junction of Rajasthan, Madhya Pradesh, and Uttar Pradesh. It is known for the **critically endangered gharial**, the **red-crowned roof turtle**, and the endangered Ganges river dolphin.

Note:





Yamuna

- The river Yamuna, a major tributary of river **Ganges**, originates from the **Yamunotri glacier** near **Bandarpoonch peaks** in the Mussoorie range of the lower Himalayas in Uttarkashi district of Uttarakhand.
- It meets the Ganges at the Sangam in **Prayagraj, Uttar Pradesh** after flowing through **Uttarakhand**, Himachal Pradesh, **Haryana** and Delhi.
- **Important Dam:** Lakhwar-Vyasi Dam (Uttarakhand), Tajewala Barrage Dam (Haryana) etc.
- **Important Tributaries:** **Chambal**, Sindh, **Betwa and Ken**.

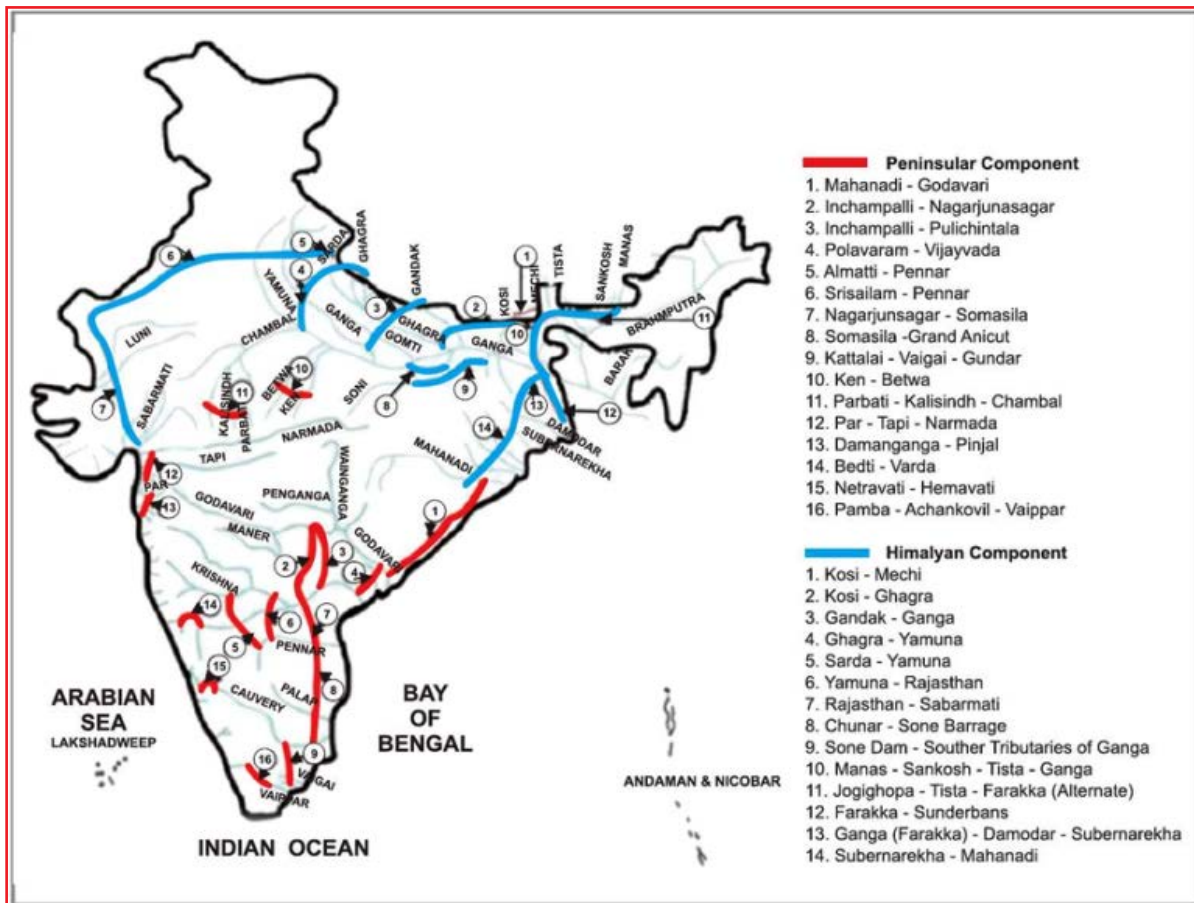
What is the National Perspective Plan for Interlinking Rivers?

- **About:**
 - The **River Interlinking Project**, also known as the **National Perspective Plan (NPP)**, formulated in **1980** by the **Ministry of Jal Shakti** is a large-scale civil engineering project that aims to **transfer water from surplus basins to deficit basins** in India.
 - It involves the **creation of artificial channels** to connect rivers and water bodies.
- **Components:**
 - Himalayan and Peninsular Rivers Development Component
- **Projects Identified:**
 - **A total of 30 link projects** have been identified, with 16 under the Peninsular Component and 14 under the Himalayan Component.
 - **Key Projects Under Peninsular Component:** Mahanadi-Godavari Links, Godavari-Krishna Links, Par-Tapi-Narmada Link, and **Ken-Betwa Link** (first project under the NPP to begin implementation).
 - **Key Projects Under Himalayan Component:** Kosi-Ghagra Link, Ganga (Farakka)-Damodar-Subernarekha Link, and Kosi-Mechi Link.

Note:

➤ Significance:

- **Flood Management:** It aims to **manage flood risks** in flood prone areas such as Ganga-Brahmaputra-Meghna basin.
- **Addressing Water Shortages:** It seeks to **mitigate water shortages** in western and peninsular states, including Rajasthan, Gujarat, Andhra Pradesh, Karnataka, and Tamil Nadu.
- **Irrigation Improvement:** It aims to **enhance irrigation in water-scarce regions**, thereby boosting agricultural productivity and improving food security, with the potential to double farmers' incomes.
 - Example: **Ken-Betwa link project.**
- **Infrastructure Development:** It facilitates the establishment of **environmentally friendly inland waterways** for efficient freight movement such as **national waterway-1.**
- **Sustainable Water Use:** It is designed to **optimise surface water utilisation** to **alleviate groundwater depletion** and minimise the freshwater flowing into the sea.



➤ Concerns:

- **Biodiversity Loss:** Altering natural river courses may lead to significant biodiversity loss and habitat disruption.
 - Example: The **Ken-Betwa link project** in Madhya Pradesh is expected to submerge a significant portion of the **Panna Tiger Reserve**, leading to a loss of habitat for fauna.
- **Community Displacement:** River interlinking projects can displace local communities, raising important social and humanitarian issues.
- **High Costs and Implementation Challenges:** Significant investments, technical difficulties, and land acquisition issues.

Note:

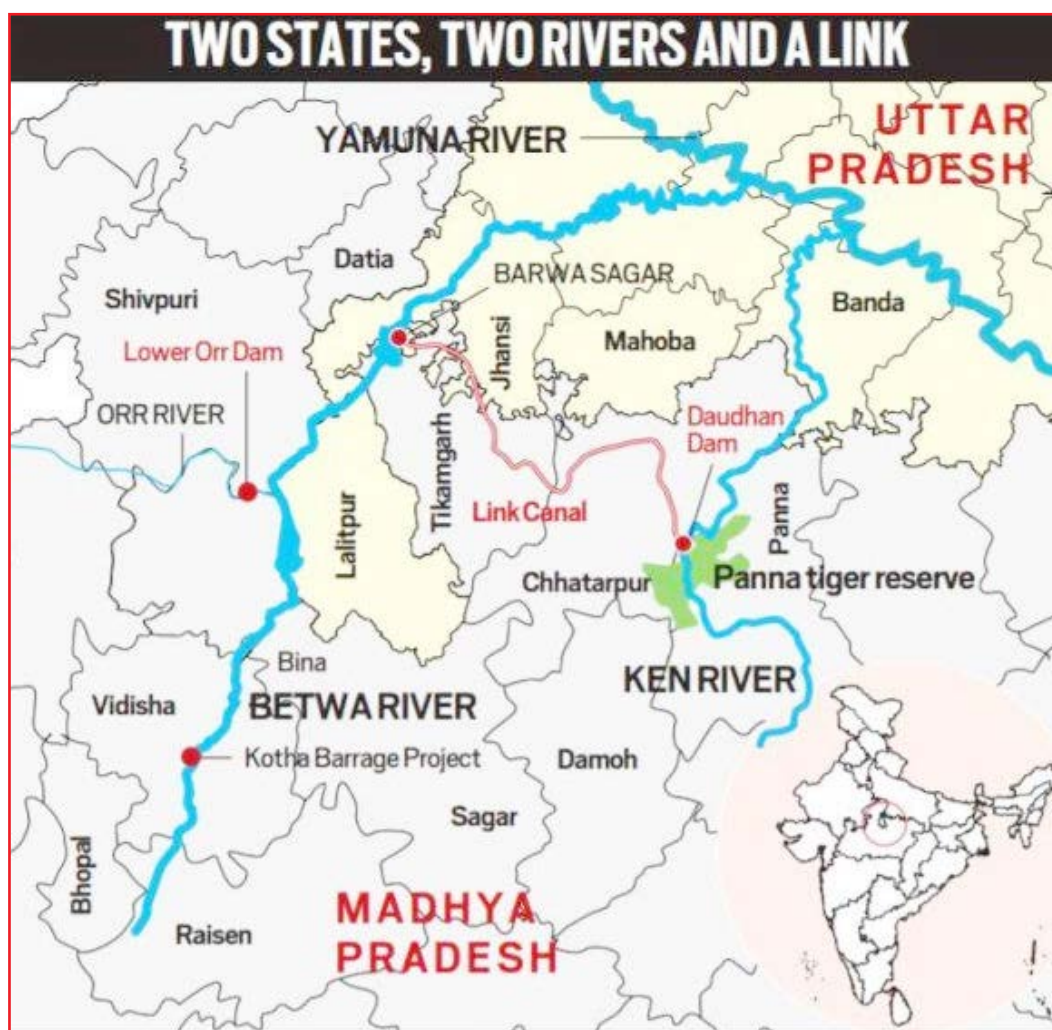


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- **Failure of Similar Projects:** The China's **South-to-North Water Diversion Project (SNWDP)** has faced several challenges and negative consequences as it aimed to move **water from the Yangtze River in the south to the Yellow River Basin in the north**.
- **Interstate Water Disputes:** Conflicts and competition among states for limited water resources. Examples: **Krishna Water Dispute**
- **Other concerns:** Social impacts, long-term sustainability, and potential for exacerbating existing problems.

Ken-Betwa River Link Project (KBLP)

- It is the **first project** under the **National Perspective Plan (NPP)** for the interlinking of rivers.
- The KBLP involves **transferring water** from the **Ken River in Madhya Pradesh** to the **Betwa River in Uttar Pradesh**, both of which are tributaries of the Yamuna River.



National Interlinking of Rivers Authority (NIRA)

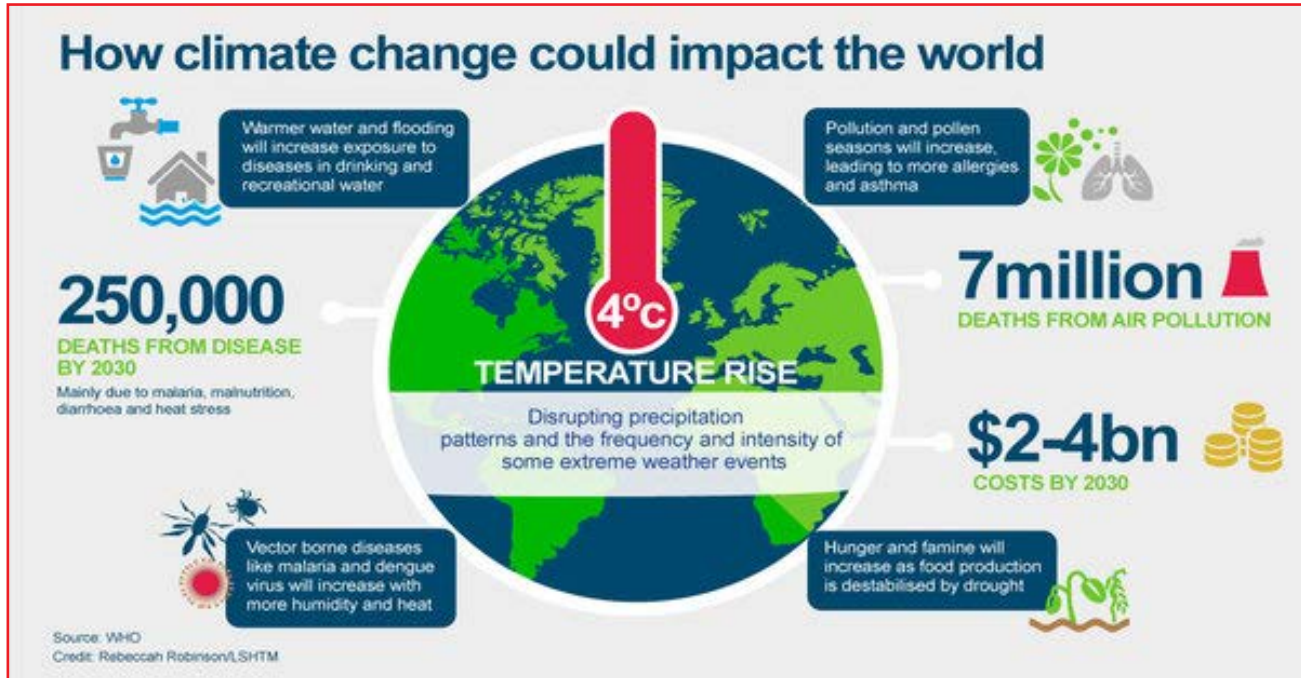
- It is a **proposed independent body** that will replace the **National Water Development Agency (NWDA)**.
- **It will be** responsible for the planning, investigation, financing, and implementation of river interlinking projects in India and will serve as an umbrella organisation for all river-linking initiatives.
- It will **coordinate with neighboring countries, relevant states, and departments**, and will have authority over environmental, wildlife, and forest clearances related to these projects.

Note:

Global Warming Affecting Weather Forecast

Why in News?

Unprecedented warming in 2023-2024 has pushed global temperatures beyond the **1.5°C** threshold, increasing the unpredictability of weather patterns and challenging current forecasting models amid extreme events like **heatwaves**, **cyclones**, and **floods**.



What are the Factors Affecting Weather and Climate Forecasting?

➤ Global Warming:

- **Global warming** refers to the **long-term increase in Earth's average surface temperature** due to human activities, primarily the emission of **greenhouse gasses (GHG)** like **carbon dioxide (CO₂)** and **methane (CH₄)**.
- Impact of Global Warming on Climate Forecasting:
 - **Increased Unpredictability of Weather:**
 - Rising global temperatures decrease weather predictability, reducing forecast accuracy by about **one day per celsius** increase.
 - ◆ Rising temperature is also complicating current forecasting models to accurately predict extreme events such as **heatwaves**, **hurricanes**, **monsoons** and **El Niño**.
 - **Changes in Atmospheric Dynamics:**
 - Rising temperatures **accelerate the growth of atmospheric eddies**- small-scale circulations in the troposphere which impact weather systems.
 - ◆ This faster growth **reduces the memory of initial conditions in weather models**, leading to a **narrower window for accurate predictions**, especially in warming regions.
 - **Impact on Forecasting Models:**
 - **Lorenz's "butterfly effect":**
 - ◆ It shows that **small changes in temperature, humidity, and wind** can lead to **significant impacts on climate forecasting**.

Note:



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➤ **Other Factors:**

○ **Data Quality and Availability:**

- Accurate forecasts depend on **comprehensive and high-quality data**. Gaps in data may hinder the ability to make precise predictions.

○ **Model Limitations:**

- Climate models, while sophisticated, have inherent limitations as they often **struggle to replicate historical trends** and can produce varying results based on their configurations.

○ **Natural Variability:**

- Weather patterns are influenced by natural phenomena such as [El Niño](#), [La Niña](#), and the [Indian Ocean Dipole \(IOD\)](#) which further complicates predictions.

Causes and Effects of Climate Change

Causes

- Rapid industrialization
- Energy use
- Agricultural practices
- Deforestation
- Consumer practices
- Livestock
- Transport
- Resource extraction
- Pollution



Effects

- Rising temperatures
- Rising sea levels
- Unpredictable weather patterns
- Increase in extreme weather events
- Land degradation
- Loss of wildlife and biodiversity

What are the social impacts of climate change?

Displaced people. Poverty. Loss of livelihood. Hunger. Malnutrition.
Increased risk of diseases. Global food and water shortages.



Read More: [World's Oceans Approaching Critical Acidification Level](#), [Rising Global Temperatures](#)



Note:

Security

Highlights

- Terror Groups in the Middle East
- THAAD, UNIFIL and Dragon Drones

Terror Groups in the Middle East

Why in News?

Recently, **Israel attacked the Hezbollah** which is one of the militant groups fighting in the **middle east**. This attack brought several militant groups of the middle east into limelight.



What are the Various Terror Groups of the Middle East?

➤ Hezbollah

○ About:

- It is a **Shiite Muslim political party** and militant organisation located in Lebanon, known for **operating as “a state within a state.”** Its paramilitary wing, the **Jihad Council**, commands the most powerful armed force in Lebanon.
- Hezbollah’s **Islamic Jihad Organization (IJO)**, also referred to as the External Security Organization or Unit 910, is a highly **compartmentalised unit responsible for conducting overseas terrorism operations**, particularly against Western targets.

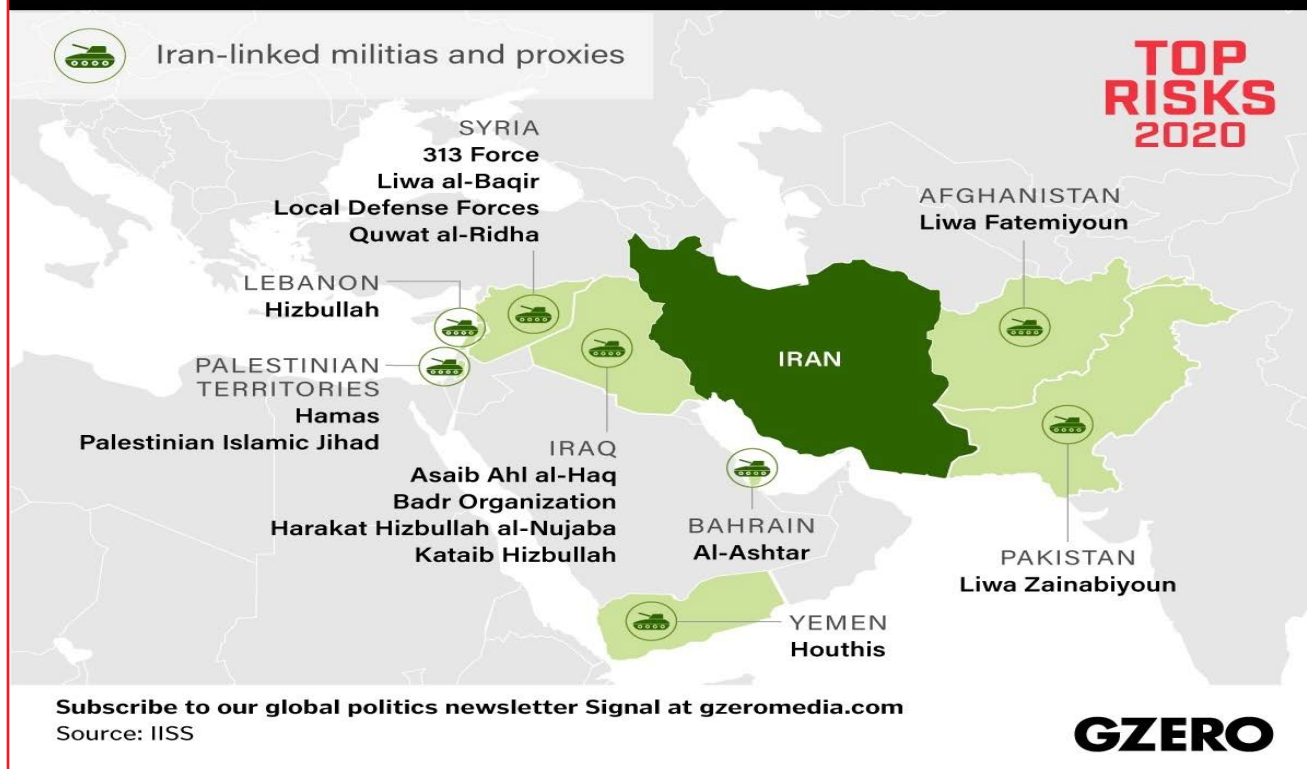
Note:



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- Hizballah identifies **Israel and the United States** as its **primary adversaries** and has been involved in operational activities within its homeland.

Iran's regional reach



○ Aim:

- Hizballah possesses state-like **military capabilities**, including air defense systems, missiles, precision-guided missiles, rockets, and unmanned aircraft systems.
- The group is dedicated to maintaining its strategic partnership with **Iran**, **supporting the Syrian regime**, and consolidating its power within Lebanon while opposing Israeli interests and striving to **expel US forces from the Middle East**.
 - Since its inception it aimed to eliminate the state of Israel.

○ Territory of Influence:

- **Operates throughout Lebanon** with relative impunity.
- Worked with Iranian officials to provide training and other military support to Shia militants in **Iraq, Syria, and Yemen**.

Note:



○ **United Nations Stand:**

- The UN **considers Hezbollah a terrorist organisation** and a major threat due to its military capabilities and involvement in both regional conflicts and global terrorism.

Note:

➤ **Badr Organization**

○ **About:**

- It is an **Iraqi Shia Islamist and Khomeinist political party** and paramilitary group.
- Originally known as the **Badr Brigades** or **Badr Corps**, the organization was **formed in 1982** as the military wing of the **Supreme Council for Islamic Revolution in Iraq (SCIRI)**, a Shia Islamic party based in Iran.

○ **Aim:**

- The **Badr Brigade** was **established with the support of Iranian intelligence** and **Shia cleric Mohammad Baqir al-Hakim**, with the **primary objective of opposing Saddam Hussein's Ba'athist regime** during the **Iran-Iraq War**.
- After the **2003 US-led invasion of Iraq**, a large portion of **Badr Brigade fighters joined the Iraqi army and police forces**, becoming an integral part of Iraq's security apparatus.
- The **Badr Organization gained prominence again in 2014** due to its active involvement in combating the **Islamic State of Iraq and the Levant (ISIL)** as part of the **Popular Mobilization Forces (PMF)**.
- Its **role within Iraq's paramilitary framework has been significant**, contributing to national security, particularly through their association with the **PMF**, which operates under the **Iraqi government's oversight**.

○ **Territory of Influence:**

- **Baghdad** and **Southern Iraq**.

○ **United Nations Stand:**

- The **UN views the Badr Organization as destabilizing due to its Iranian links**, sectarian violence, and negative impact on Iraq's governance and regional stability.

➤ **Islamic State of Iraq and ash-Sham (ISIS)**

○ **About:**

- ISIS is a **Salafi-jihadist group** responsible for numerous terrorist attacks worldwide, resulting in thousands of deaths and injuries.
- In 2004, an Iraqi extremist network led by **Abu Musab al-Zarqawi** merged with **al-Qa'ida** to **form al-Qa'ida in Iraq (AQI)**, which **Zarqawi** led until his death in 2006.

- In 2010, **Abu Bakr al-Baghdadi** took over the group and **expanded its operations into eastern Syria by 2011**.
- In 2013, **AQI rebranded itself as ISIS**, and in 2014, the group severed ties with **al-Qa'ida**, declaring itself a caliphate while seizing significant territory in Iraq and Syria.
- In 2019, an international coalition expelled ISIS from its last stronghold in Syria, but the **group continues to operate covertly in both Syria and Iraq**.

○ **Aim:**

- ISIS employs a variety of tactics, including **targeted killings, IED attacks, ambushes, military-style assaults, kidnappings, and suicide bombings** in Iraq and Syria.
- The group encourages its followers worldwide to carry out operations in their own countries using easily accessible weapons.
- The organization **primarily targets military forces and civilian defense groups in Iraq and Syria**.
- ISIS frequently attacks government personnel and infrastructure, as well as **foreign aid workers and civilians perceived to be opposing its ideology or interpretation of Islamic law**.

○ **Territory of Influence:**

- Based primarily in **northern and eastern Syria and northern Iraq**.

○ **United Nations Stand:**

- The **UN has labelled ISIS a terror organisation and a global threat**, condemning its brutal violence and numerous casualties.

○ **India's Stand:**

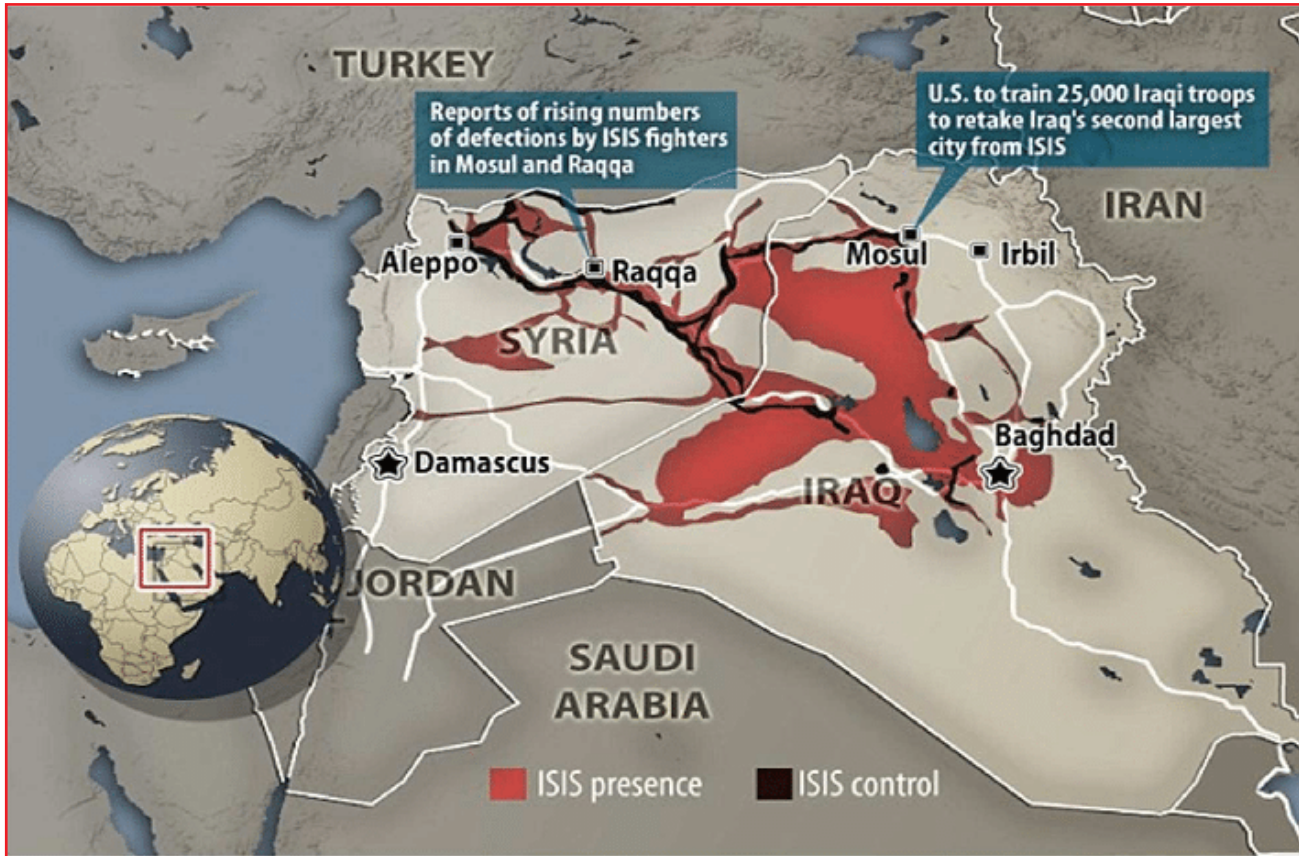
- India categorically **condemns and banned ISIS** and organisations affiliated with it.

➤ **Boko Haram**

○ **About:**

- **Boko Haram seeks to eliminate Western influence and establish a Salafi-Islamist state** in its area of operations.
- Since its **formation in 2002**, Boko Haram has been responsible for an estimated 50,000 deaths and the displacement of over 2.5 million people.
- The group was **previously affiliated with al-Qa'ida and ISIS** but currently operates independently of both.

Note:



- After 2021, many members defected to ISIS–West Africa or surrendered to local authorities.

○ **Aim:**

- Boko Haram frequently employs **small arms to carry out attacks against civilians and regional security forces.**
- The group conducts kidnappings to secure ransoms and gain access to medical services.
- It has utilized untrained kidnapping victims, including women and children, as suicide bombers.

○ **Territory of Influence:**

- Northeast **Nigeria** and southeast **Niger**, also conducts operations in **Cameroon and Chad.**

○ **United Nations Stand:**

- Boko Haram is recognized by the UN as a **terrorist organisation.**

➤ **Kurdistan Workers' Party (PKK)**

○ **About:**

- The Kurdistan Workers' Party (PKK), also known as **Kongra-Gel**, is a **militant Marxist-Leninist Kurdish separatist organisation** founded in 1978 with the aim of establishing a **unified, independent Kurdistan.**
- The PKK seeks to **control Kurdish regions in Iran, Iraq, Syria, and Turkey** to promote Kurdish rights and recognition.
 - The group's stated objective is to **create a confederation of semi autonomous Kurdish regions.**
- Historically, the PKK has based its headquarters in Iraq and primarily targeted Turkish interests in the Kurdish-majority southeastern region of Turkey.
- Turkish security forces in southeastern Turkey have driven most of the **PKK's activities into Iraq and Syria.**

Note:



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○ **Aim:**

- The PKK employs a combination of **guerrilla warfare and terrorist tactics** in its operations.
- The group utilizes a range of weapons and methods, including IEDs, car bombs, grenades, small arms, mortars, suicide bombings, and kidnapping operations.
- The PKK conducts attacks **primarily against Turkish and Turkish-supported forces in northern Iraq and Syria**, as well as Turkish personnel and infrastructure in southeastern Turkey.
- The group also employs unmanned aerial vehicles and man-portable air defense systems in its assaults.

○ **Territory of Influence:**

- Northern Iraq and southeastern **Turkey**.
- Affiliated groups operate in northern **Syria**, northern **Iraq**, and western **Iran**.



○ **United Nations Stand:**

- The UN has addressed the **PKK's actions as part of broader counter-terrorism discussions**, recognizing its militant activities primarily against Turkish interests.
- The group is often viewed within the context of **regional instability and its implications for Turkey's security policies**.

○ **India's Stand:**

- India does not have a specific policy targeting the PKK. However, it recognizes the challenges posed by separatist movements.

Note:

THAAD, UNIFIL and Dragon Drones

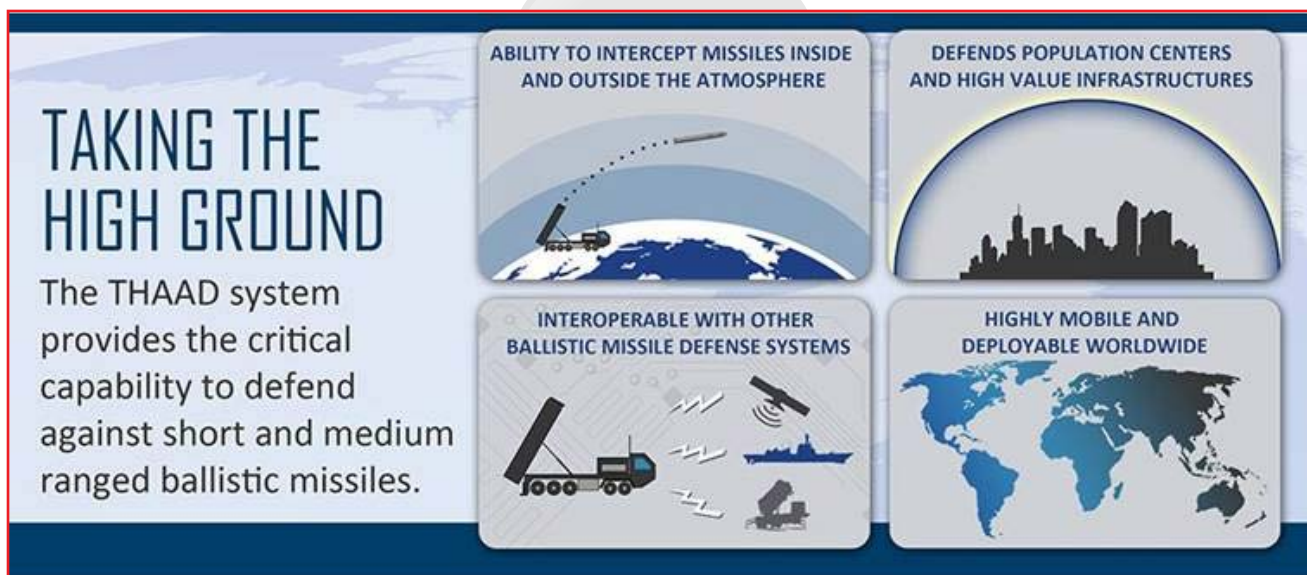
Why in News?

Recently, the **United States** sent a **THAAD battery** to Israel, and Israeli tanks attacked **UNIFIL in Lebanon**.

- In another development, **dragon drones** are being used by both sides in the **Russia-Ukraine war**.

What is the Terminal High Altitude Area Defence (THAAD)?

- **Overview of THAAD:** THAAD is an advanced US **anti-ballistic missile system** designed to **intercept and destroy** short, medium, and intermediate-range **missiles**.
 - It uses a “hit-to-kill” approach where an interceptor missile destroys its target by **directly colliding** with it, using **sheer impact force** rather than explosives.
 - However, it **cannot detect low flying objects** like drones.
- **Development History:** The US developed THAAD after Iraq’s **Scud missile attacks** during the **1991 Gulf War**, where many American soldiers were killed.
- **Deployment of THAAD:** In **2008**, the US deployed an **early missile warning radar**, a part of the **THAAD system** to Israel. Similar deployments were also made in **2012** and **2019** to boost Israel’s ability to intercept missiles.



What are Dragon Drones?

- **About Dragon Drones:** Dragon drones are **deadly UAVs** equipped with **thermite** and **rain down fire** from sky.
 - Thermite is a mixture of **aluminium and iron oxide**, developed to **weld railroad tracks**.
- **Working Mechanism of Dragon Drones:** Thermite is ignited by an **electrical fuse** and triggers a **self-sustaining reaction** that is incredibly **difficult to extinguish**.
 - It can burn various materials, including **military vehicles, trees, and even underwater**.
- **Deployment in the Russia-Ukraine War:** Ukrainian forces used them to **ignite the vegetation** that Russian troops use for cover exposing them to direct attack.
 - Russia soon adopted the use of dragon drones in retaliation.
- **History of Thermite in Warfare:** During **World War I**, **German zeppelins (aircraft without wings)** dropped thermite-laden bombs which were considered an innovation at the time.

Note:

- In **World War II**, both the **Allied and Axis powers** incorporated thermite into their incendiary bombs and hand grenades.
- **Incendiary weapons** are designed to **ignite objects** or cause **burns and respiratory injuries** through flame and heat.
- **Legal Status of Thermite in Warfare:** Thermite use in war is **not banned** under international law, but using incendiary weapons **against civilians is prohibited** by the **Convention on Certain Conventional Weapons**.
- **Protocol III** of the Convention on Certain Conventional Weapons restricts their use to **military targets only**.

What is the United Nations Interim Force in Lebanon (UNIFIL)?

- **Breach UNIFIL Base:** Two Israeli **Merkava tanks burst through the gates** of a **UNIFIL base** in southern Lebanon and released toxic smoke, leading to the illness of 15 UN peacekeepers.
 - The Israeli Prime Minister urged the **withdrawal** of UNIFIL troops from Lebanon's **combat zones**, claiming their presence indirectly shields **Hezbollah**.
- **Violations of International Law:** UNIFIL described Israel's attacks as violations of **international humanitarian law** and **Resolution 1701**, which ensures peacekeepers' freedom of movement.
- **UNIFIL's Role:** Established in **1978**, UNIFIL is responsible for enforcing **Resolution 1701**, which mandates that only Lebanese state forces and UNIFIL be present between the **Blue Line** and the **Litani river**.
 - Resolution 1701 was adopted unanimously in **2006**, and aims to **end hostilities between Hezbollah and Israel**.
- **Blue Line:** The Blue Line extends **120 km** along **Lebanon's southern frontier** and **Israel's northern border**.
 - It is not a border, but a **line of withdrawal**. It was set by the **United Nations** in **2000** for confirming the withdrawal of Israeli forces from the south of Lebanon.

Note:

Ethics

Highlights

- Medical Ethics and Consumer Rights in India

Medical Ethics and Consumer Rights in India

Why in News?

Recently, the **National Consumer Disputes Redressal Commission (NCDRC)** has fined **Johnson & Johnson** Rs 35 lakh for supplying **defective medical devices**, following a case filed by a consumer who suffered complications from a **faulty hip replacement**.

- This highlights the critical need for strict adherence to medical ethics and protocols.

Note:

- Hip replacement surgery (hip **arthroplasty**) aims to relieve pain, improve hip joint function, and help patients move better.
- Hip implants are used to **alleviate pain and stiffness** in the hip due to conditions like **arthritis or avascular necrosis**.
 - These implants are made from various materials, including **metal, ceramic, and plastic**, with the ball often made from cobalt-chromium alloy or ceramic and the stem typically from titanium or cobalt-chromium alloy.

How Ethics Guide Medical Practices?

- **About Medical Ethics:** Medical ethics deals with the **right choices of conduct in the field of human health**, addressing the distinction between what is considered right or wrong at a given time in a given culture.
 - It is concerned with the **obligations of doctors, hospitals, other health professionals, and society towards patients**.
 - Ethical principles are fundamental in medical practice and often take precedence over legal obligations in guiding healthcare professionals' actions.

➤ Principles of Medical Ethics:

- **Respect for Autonomy:** Acknowledging the **patient's right to make informed choices** regarding their treatment by ensuring proper informed consent is obtained.
- **Beneficence:** It involves **prioritising the patient's health and well-being** during the entire surgical procedure, **acting in their best interests**.
- **Non-Maleficence:** A medical practitioner/medical equipment supplying company must **avoid harming patients** and ensure they **receive necessary medical care**, refraining from any **negligent acts** that could **deprive patients of essential healthcare**.
- **Justice:** It involves **treating all patients impartially and equitably**, regardless of their religion, nationality, race, or social status.
- **Hippocratic Oath:** The Hippocratic Oath is a **fundamental tenet for newly graduated medical professionals**, recited during convocation ceremonies to bind them to a code of ethics.
 - It encompasses the principles set forth in the **Indian Medical Council (Professional Conduct, Etiquette, and Ethics) Regulations 2002**, committing them to **serve humanity, comply with medical laws, respect life, prioritise patient welfare, maintain confidentiality, express gratitude to teachers, and foster collegial respect**.
 - This oath acts as a **moral compass**, guiding physicians in upholding the esteemed traditions and **ethical standards of the medical profession**.

What is the National Consumer Disputes Redressal Commission (NCDRC)?

➤ About:

- The National Consumer Disputes Redressal Commission (NCDRC) is a **quasi-judicial body** that was **set up in 1988** under the **Consumer Protection Act (CPA), 1986**.

Note:



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- NCDRC aims to ensure **inexpensive, prompt, and summary resolution of consumer disputes**.
- The NCDRC is headed by a **sitting or a retired Judge** of the **Supreme Court** of India or a **sitting or retired Chief Justice of the High Court**.
- Provisions of the CPA, 1986:
 - **Jurisdiction: Section 21** of the CPA, 1986 provides the NCDRC authority to entertain **complaints valued over Rs 2 crore**.
 - Additionally, it possesses **appellate and revisional jurisdiction** over orders issued by **State Commissions and District Forums**.
 - **Appellate Authority:** If a consumer is dissatisfied with a decision made by a District Forum, they can appeal to the **State Commission**.
 - Subsequently, if the consumer is **still unsatisfied with the State Commission's ruling**, they can escalate the matter to the NCDRC.
 - According to **Section 23** of the Act, any individual aggrieved by a decision of the NCDRC may file an **appeal to the Supreme Court of India within 30 days**.
 - **Scope of Coverage:** The provisions of this Act encompass **both 'goods' and 'services'**.
- **Consumer Forums:**
 - The **Consumer Protection Act (CPA), 2019** provides that complaints can be filed into District, State, and National levels based on the **value of the claim**.
 - **District Consumer Disputes Redressal Commission (DCDR):** For claims up to Rs 50 lakh.
 - **State Consumer Disputes Redressal Commission (SCDR):** For claims between Rs 50 lakh and Rs 2 crore
 - **National Consumer Disputes Redressal Commission (NCDRC):** For claims above Rs 2 crore.

Central Consumer Protection Authority (CCPA):

- CCPA is the **regulatory body** established under **Section 10** of the **Consumer Protection Act (CPA), 2019**, it regulates matters related to **consumer rights violations** and unfair trade practices.
- It operates under the **Ministry of Consumer Affairs, Food and Public Distribution**.
- **Powers of CCPA:**
 - **Consumer Rights:** Protects and enforces the rights of consumers as a group.

- **Unfair Trade Practices:** Prevents individuals from engaging in unfair trade practices.
- **Advertisement Regulation: Section 21 of CPA, 2019** grants the CCPA the power to **issue directions and penalties** against **false or misleading advertisements**.

What are the Issues of Medical Ethics in India?

- **Informed Consent:** There is often inadequate or no informed consent obtained from patients, particularly in clinical trials involving vulnerable populations.
 - **Example:** Controversy surrounding the **Covid-19** vaccine trials conducted in various parts of the world.
- **Patient Privacy:** There is a significant lack of robust measures to safeguard patient data and ensure confidentiality.
 - Example: In 2023, a significant **data breach of the ESIC database** exposed the personal health information of millions of patients, including sensitive data such as Aadhaar numbers, medical histories, and contact details.
- **Conflicts of Interest:** Instances arise where medical professionals have **financial stakes in the treatments or procedures** they recommend.
 - In 2023, a prominent cardiologist in Delhi, was found to have financial ties to a stent manufacturing company, receiving substantial payments for consulting and holding equity stakes.
- **Doctor-Patient Trust:** The **commercialization of healthcare and a lack of transparency** have led to an erosion of trust between doctors and patients.
 - **Example:** Doctors employed in government hospitals engaging in private practice and charging exorbitant fees from patients.
- **Regulatory Oversight:** Weak enforcement and compliance with ethical guidelines result in abuses within clinical trials and patient care.

What are the Initiatives for Consumer Protection?

- **Consumer Welfare Fund**
- **Central Consumer Protection Council**
- **Consumer Protection Rules, 2021**
- **Consumer Protection (E-Commerce) Rules, 2020**
- **National Consumer Day**



Note:

Miscellaneous

Highlights

- Nobel Peace Prize 2024
- The Nobel Prize in Literature 2024
- Contributions and Legacy of Ratan Tata
- Declining Academic Freedom in India
- Visakhapatnam's Pillboxes
- Shedding Colonial Practices in Armed Forces

Nobel Peace Prize 2024

Why in News?

The **2024 Nobel Prize for Peace** has been awarded to **Nihon Hidankyo**, a Japanese organisation of **survivors of the Hiroshima-Nagasaki bombings** for its "efforts to achieve a world free of nuclear weapons".

- The **Nobel Peace Prize for 2023** was awarded to the **Iranian human rights advocate Narges Mohammadi**, who belonged to a minority group.
- She was awarded for her fight against the oppression of women in Iran and her fight to promote human rights and freedom for all.

Nihon Hidankyo

- **Founded on 10th August 1956**, it is composed of **survivors from the atomic bombings in Hiroshima and Nagasaki** conducted by the United States in 1945.
- The survivors, **referred to as "Hibakusha"** or "bomb-affected people," played a pivotal role in leading the **global movement aimed at abolishing nuclear weapons**.

What was the Nuclear Attack on Japan?

- On **6th August 1945**, the **United States dropped "Little Boy" on Hiroshima**, resulting in catastrophic destruction.
 - More than 70,000 individuals died instantly, with the total death toll later exceeding 100,000.
- On **9th August 1945**, before the full extent of Hiroshima's destruction could be grasped, the **US dropped "Fat Man" on Nagasaki**, resulting in at least 40,000 immediate deaths and tens of thousands more in the following days and weeks.
 - **Japanese Emperor Hirohito** announced **Japan's surrender on 15th August**. In his speech, he warned

that continuing the fight would lead to "the ultimate collapse and obliteration of the Japanese nation" and could result in "the total extinction of human civilization."

How does Hibakusha Advocate for Nuclear Disarmament?

- The United States' decision to drop the atomic bombs has faced **criticism from both strategic and ethical viewpoints** due to its significant human cost.
 - The bombings altered the global landscape, **prompting major powers to race to develop their own nuclear arsenals** as a deterrent against the United States.
- In response to this nuclear arms race, a global movement for nuclear disarmament emerged, with the **Hibakusha playing a vital role in advocating for disarmament**.
- Nihon Hidankyo claims to be "the **only nation-wide organisation of A-bomb survivors** of Hiroshima and Nagasaki."
 - Their primary objectives include **promoting the welfare of Hibakusha**, **advocating for the elimination of nuclear weapons**, and **seeking due compensation for victims**.
 - The organisation has focused on **sharing the experiences of the Hibakusha to raise awareness** about the damage and after-effects of the atomic bombings, both in Japan and internationally.
- The Nobel citation **noted their efforts to send A-bomb survivors to the United Nations, nuclear-armed states, and other countries to share their stories**.
- Organisations like Nihon Hidankyo have contributed to **establishing a nuclear taboo**, which has **prevented the use of nuclear weapons since 1945**.

Note:



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Other Organisation/Individuals Awarded for Nuclear Disarmament

- Since 1901, several **Nobel Peace Prizes** have been awarded for efforts in disarmament.
 - Former Japanese Prime Minister Eisaku Sato was a recipient in 1974, recognized for Japan's commitment to its **non-nuclear weapons policy**.
 - The most recent Nobel Peace Prize, awarded in 2017 to **the International Campaign to Abolish Nuclear Weapons (ICAN)** for its efforts to highlight the catastrophic humanitarian consequences of nuclear weapon use and for its pioneering work toward a treaty to prohibit such weapons.
 - ICAN has collaborated with Nihon Hidankyo to document the effects of nuclear weapons.

Other Nobel Prize 2024

- Literature: **South Korean author Han Kang**
- Physics: **John J. Hopfield and Geoffrey E. Hinton**
- Physiology or Medicine: **Victor Ambros and Gary Ruvkun**
- Chemistry: **David Baker, Demis Hassabis and John M. Jumper**

The Nobel Prize in Literature 2024

Why in News?

South Korean author Han Kang has been awarded the **2024 Nobel Prize in Literature** by the **Swedish Academy, Stockholm, Sweden** for her "intense poetic prose" that explores historical traumas and the fragility of life.

- Han Kang is the **first South Korean writer to win the Nobel Prize in Literature**, marking a historic moment for South Korea's literary scene.

Who is Han Kang?

- **About:** Born in 1970, Han Kang is a renowned novelist and poet, she is recognized for her **intense poetic prose**, which combines lyricism with narrative.

Her style has redefined contemporary literature by blending physical and emotional empathy in a unique manner.



Key Literary Contributions:

- **The Vegetarian (2007):** It was her breakthrough novel, translated by Deborah Smith in 2015, and it won the **2016 Man Booker International Prize**.
 - The **International Booker Prize**, established in 2005 as the Man Booker International Prize, is awarded for a single book of fiction translated into English and published in the **United Kingdom or Ireland**, promoting global literature and celebrating the contributions of **both the author and the translator**.
- **Human Acts (2016):** Focuses on the 1980 Gwangju massacre, where South Korean military forces killed protesting students and civilians.
 - Explores trauma and collective memory in a visionary yet concise manner.

Note: **Rabindranath Tagore** was awarded the **Nobel Prize in Literature 1913** for his profoundly sensitive, fresh and beautiful verse, which he expressed in his own English words and made a part of the literature of the West.

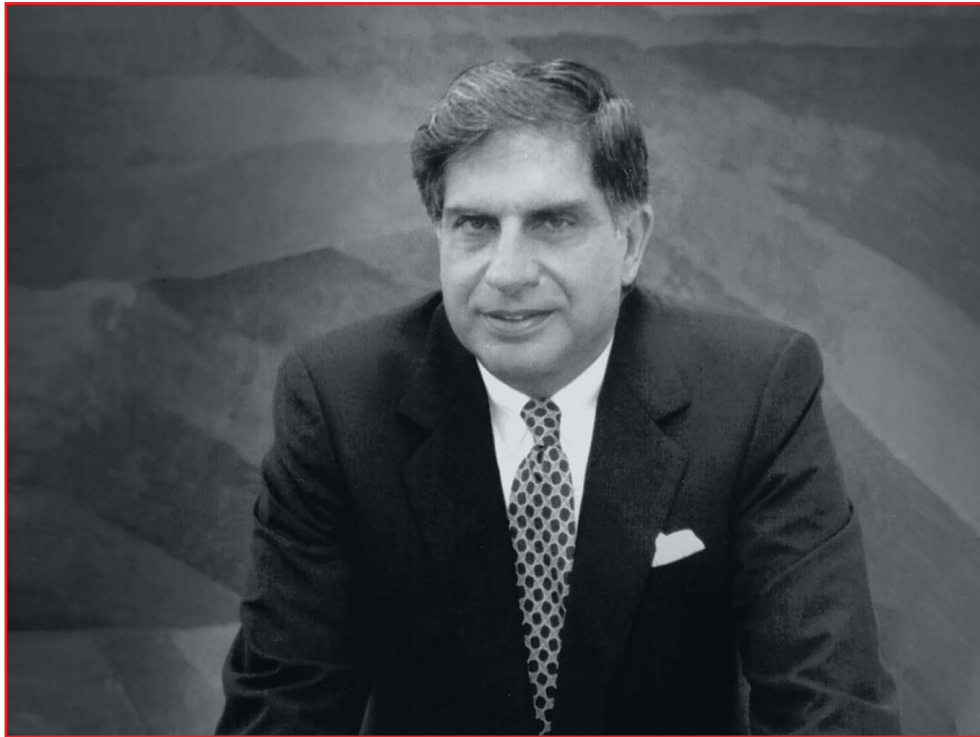
- Notable literary contributions by Rabindranath Tagore are Manasi, Gitanjali, Sâdhanâ: The Realisation of Life, and Chitra: a Play in One Act.
- The **Nobel Prize in Literature for 2023** was awarded to **Jon Fosse, a Norwegian author and dramatist**, for his innovative plays and prose which give voice to the unsayable."

Note:

Contributions and Legacy of Ratan Tata

Why in News?

Recently, **Ratan Naval Tata**, the **former chairman of Tata Group** who became a symbol of **India's economic resurgence in the 21st century**, passed away at a Mumbai hospital at the age of 86.



Who was Ratan Tata?

➤ About:

- Ratan Naval Tata was a respected Indian businessman and former chairman of Tata Group, one of India's largest conglomerates.
- He was awarded the **Padma Bhushan** in 2000 and the **Padma Vibhushan** in 2008.
- He **graduated in architecture from Cornell University** before **returning to India in 1962 to join the Tata Group**, founded by his **great-grandfather, Jamsetji Tata**.
- He **was a licensed pilot**, known for his quiet demeanour, relatively modest lifestyle and philanthropic initiatives.
- Ratan Tata remained a **visionary leader and a compassionate figure**, earning widespread respect in both business and social circles.

➤ Achievements:

- Ratan Tata played a **key role in transforming Tata Group into a global powerhouse**, with ventures spanning industries such as steel, automobiles, software, and telecommunications.
- Early in his career, he worked with several Tata companies, including **Tata Motors (formerly Telco)** and **Tata Steel**, and revitalised the National Radio & Electronics Company.
- **In 1991, he succeeded J.R.D. Tata as chairman of Tata Group**.
- He implemented significant **organizational reforms such as enforcing retirement ages** and promoting young talent to leadership roles.

Note:



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○ He was also awarded with:

- Assam Baibhav by Government of Assam in 2021.
- Honorary Officer of the Order of Australia by King Charles III in 2023.
- Honorary Doctor of Science by IIT Bombay in 2008
- Honorary Knight Grand Cross of the Order of the British Empire (GBE) by Queen Elizabeth II in 2014
- Honorary Citizen Award by Government of Singapore in 2008.

Note:

➤ Contributions:

- Tata set up **Tata Teleservices in 1996** and took **Tata Consultancy Services (TCS) public in 2004**, capitalising on the IT boom.
- His leadership marked significant international acquisitions, including:
 - The purchase of **Tetley Tea in 2000**.
 - Acquisition of **VSNL (Videsh Sanchar Nigam Limited)** in 2002.
 - The **acquisition of Corus Steel in 2007**, one of the largest takeovers by an Indian company.
 - The acquisition of **Jaguar and Land Rover from Ford** in 2008.
 - Tata played a key role in **Tata Group's acquisition of Air India** from the government in **January 2022**.
- He also launched the **Tata Nano, a low-cost car aimed at providing affordable transportation to the Indian masses**.
- After stepping down from active leadership, **Tata became a prominent investor in Indian startups**, backing companies such as **Paytm, Ola Electric**, and Urban Company.

Declining Academic Freedom in India

Why in News?

The “Free to Think 2024” annual report by the **Scholars at Risk (SAR) Academic Freedom Monitoring Project** reveals a concerning decline in **academic freedom in India** over the past decade.

- Academic freedom refers to the right to pursue knowledge and conduct research without interference, supporting the **open exchange of ideas and protecting academic integrity**.

Note: SAR is a network of 665 universities across the globe, it investigates and reports attacks on higher education with the aim of raising awareness, generating advocacy, and increasing protection for scholars, students, and academic communities.

What are the Key Highlights of the Report?

- **Significant Decline in Academic Freedom:** The report stated that India's academic freedom index score dropped from **0.6 to 0.2 points** between 2013 and 2023.

- The report stated that, according to the **Academic Freedom Index (AFI)**, India now ranks as “**completely restricted**,” marking its lowest score since the mid-1940s.

➤ Main Threats to Academic Freedom in India:

- **Political Control:** The report cites the heightened efforts to exert political control and impose a majoritarian religion agenda in universities.
- **Restrictions on Protests:** New policies at universities like Jawaharlal Nehru University (JNU) and South Asian University (SAU) have **prohibited student protests**, undermining student expression and activism.
 - Restrictions are also placed on **academic freedom, limiting independent thought and expression**.
- **Central vs. State Government Conflicts:** Ongoing battles between the **Union government and various State governments over control of higher education** are evident, particularly in states like Kerala, Tamil Nadu, West Bengal, and Punjab.
 - Such conflicts result in restrictive policies that can limit independent institutional autonomy and restrict academic freedom.
- **Intimidation of Scholars:** Instances of intimidation have led to resignations or retractions of critical academic work, undermining academic integrity and fostering self-censorship among researchers in higher education.
- **Global Context:** The report documents **391 attacks** on higher education communities in **51 countries**, highlighting a broader global issue of threats to academic freedom.

Academic Freedom Index

- The AFI assesses **de facto levels of academic freedom across the world based on five indicators**. The AFI currently covers **179 countries (including India)** and territories, and provides the most comprehensive dataset on the subject of academic freedom.
 - **Five Indicators:** freedom to research and teach; freedom of academic exchange and dissemination; institutional autonomy; campus integrity; and freedom of academic and cultural expression.
- The AFI project **started in 2017** with an expert consultation in Cologne, funded by the Fritz Thyssen Foundation, and the **first version was released in 2020**.
- AFI uses a scale from **0 (low) to 1 (high)** to measure the degree of academic freedom in a country.

Note:



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India

ACADEMIC FREEDOM INDEX (2023) 0.18 ⬇️

Freedom to Research and Teach:	1.25	⬇️
Academic Exchange and Dissemination:	1.45	⬇️
Institutional Autonomy:	1.24	⬇️
Campus Integrity:	1.37	⬇️
Academic and Cultural Expression:	1.23	⬇️

India

ACADEMIC FREEDOM INDEX (2023) 0.18



Freedom to Research and Teach (2023) 1.25



Institutional Autonomy (2023) 1.24



Academic Exchange and Dissemination (2023) 1.45



Campus Integrity (2023) 1.37



Academic and Cultural Expression (2023) 1.23



Note:

Visakhapatnam's Pillboxes

Why in News?

Due to the **monsoon**, Visakhapatnam's beaches have shifted, revealing **World War II pillboxes** that were buried in the sand, offering a look into the city's forgotten maritime history.



What are Pillboxes?

- **About:**
 - The pillboxes, constructed during the height of World War II, were part of a strategic defense network to **safeguard Visakhapatnam's shores** from potential enemy invasions.
 - The name "pillbox" comes from their **resemblance to medicine containers** used in the early 20th century for storing pills.
- **Visakhapatnam's Pillboxes:**
 - The most **visible pillbox is located at R.K. Beach**, revealed by beach erosion, while a second one at **Jalaripeta fishing colony is buried** under sand, garbage, and neglect.
 - Visakhapatnam was a significant target during the war, as it is **one of India's key naval bases with a deep natural harbor**.
- **Strategic Importance:**
 - The pillboxes were **designed to blend into the landscape**, making them **difficult for enemies to detect**.
 - They **functioned as tactical posts**, allowing soldiers to defend the coastline while providing secure cover for firing at enemies.

World War I and II

- **World War I (1914-1918)** was fought between the **Allied Powers** (France, Russia, Britain, Italy, Japan, and the United States) and the **Central Powers** (Germany, Austria-Hungary, the Ottoman Empire, and Bulgaria), with the Allied Powers emerging victorious.
- **World War II (1939-1945)** was fought between the **Axis Powers** (Germany, Italy, and Japan) and the **Allied Powers** (France, Great Britain, the United States, the Soviet Union, and China), with the Allied Powers winning the war.

Shedding Colonial Practices in Armed Forces

Why in News?

Recently, the Defence minister released a publication on '**Colonial Practices and the Armed Forces-A Review**' which proposes **shedding colonial practices** and advocated indigenisation in the **doctrines, procedures and customs** practised in the Armed Forces.

- Earlier, **Project Udbhav** was launched to synthesise **ancient wisdom with contemporary military practices**.

What are the Key Changes Proposed to Shed Colonial Vestiges?

- **Focus on Indigenous Strategies:** Efforts are underway to foster **India-centric strategic thinking** among young military leaders by incorporating texts from **ancient Indian strategists** into their courses.
 - Eg. Land campaign studies of Indian Generals such as **Marathas or Sikhs** and naval exploits of **Raja Raja Chola I** and his son **Rajendra Chola**.
 - It could also include the **governance model of Emperor Chandragupta Maurya**.
- **Incorporating Indigenous Texts:** The **Army Training Command** has drafted reading material on ancient Indian concepts and doctrines for Army personnel.
 - It includes the '**Pearls of Ancient Indian Wisdom**' with extracts from the **Gita, Panchatantra, Arthashastra, Chanakya Niti** and **Thirukkural**.
- **Pan-India Character of Infantry Regiments:** The military is exploring ways to give a more **pan-India character** to the Army's infantry regiments, enhancing **diversity and representation** across units.

Note:



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- **Enhanced Use of Indian Cultural Elements:** More Indian **poetry, prayers, songs** will be used in military training institutions replacing colonial era literature, such as **"IF by Rudyard Kipling"** and the current prayer in English at NDA.
- **Drafting a Tri-Service Act:** A major structural change being discussed is the replacement of the **three individual service Acts** with a **consolidated tri-service Act** to streamline governance across the **Army, Navy, and Air Force**.

What is Project Udbhav?

- **About:** It aims to integrate India's rich **historical military knowledge with modern military practices**.
 - It is a joint initiative between the **Indian Army** and the **United Services Institution of India (a think tank)**.
- **Incorporating Ancient Texts and Philosophies:**
 - **Chanakya's Arthashastra:** It emphasises the importance of **strategic partnerships, alliances, and diplomacy**, aligning with modern military practices like international cooperation and soft power.
 - **Thirukkural by Thiruvalluvar:** It promotes **ethical conduct** in all situations, including warfare, aligning with modern military ethics like **just war principles** and the **Geneva Convention**.
 - **Military Campaigns of Ancient Leaders:** Indian leaders such as **Chandragupta Maurya, Ashoka, and the Cholas** offer valuable insights into governance and military success.



- **Prominent Military Campaigns:**
 - **Naval Battle of Saraighat (1671):** **Lachit Borphukan's** Naval Battle of Saraighat is a prime example of using diplomacy, **psychological warfare, military intelligence**, and exploiting Mughal weaknesses.
 - **Chhatrapati Shivaji and Maharaja Ranjit Singh:** Both leaders employed tactics to defeat numerically superior **Mughal and Afghan forces** which are key lessons in **asymmetric warfare** and naval defence.
- **Indic Studies at Defence Institutions:** Academic institutions such as the **College of Defence Management (CDM)** have conducted studies that link Indian culture with strategic thinking, contributing valuable content to **Project Udbhav**.

What are Previous Initiatives to Shed Colonial Legacy?

- **Flag:** The Indian Navy has renamed **'Jack'** to **'National Flag'** and **'Jackstaff'** to **'National Flag Staff'**.
- **Insignia:** The colonial cross of **St. George** was replaced with **Shivaji's octagonal stamp** in September 2022.
- **Rank:** The epaulettes (insignia of rank), traditionally adorned with **Nelson's ring**, now bear the imprint of **Chatrapati Shivaji**.
- **Traditional Dress:** Adoption of **Kurta-Pyjama** in naval messes.
- **Ceremonial Practices:** The Indian Army has started phasing out traditional practices such as **horse-drawn buggies**.

Note:

Rapid Fire Current Affairs

Highlights

- World Mental Health Day 2024
- Difficulties in Increasing Life Expectancy
- First IPS Officer to Win Gold at Commonwealth Powerlifting
- International Day of the Girl Child and BBBP
- Tele MANAS
- UK Naga Skull Auction Controversy
- Cadaver Donation in India
- Space Based Surveillance (SBS) Mission
- World Habitat Day 2024
- Telangana Begins Sub-Categorization of SCs
- PM Internship Scheme
- 150th Anniversary of Universal Postal Union
- National Maritime Heritage Complex
- USCIRF International Religious Freedom Report
- Revised Procurement Norms for AI Computing
- India Eliminates Trachoma as a Public Health Problem
- World Cerebral Palsy Day
- Rare Rain in the Sahara Desert
- Claim of Juvenility
- 92nd Indian Air Force Day
- World Cotton Day 2024
- FPIs Investment Exceeds USD 1 Trillion in Indian Securities
- Strengthening India-UAE Investment Relations
- Greening of Antarctic Peninsula
- International Energy Efficiency Hub
- India Joins 44th Codex Nutrition Session
- 10 years of Swachh Bharat Mission
- Government to Regulate Clinical Research Organisations
- India-Nepal-Bangladesh Tripartite Agreement
- Exercise KAZIND 2024
- Dadasaheb Phalke Award to Mithun Chakraborty
- BharatGen
- International Day of Older Persons 2024
- Jal Hi AMRIT Scheme
- Global Innovation Index 2024
- Anna Darpan
- Rosh Hashanah
- India and Uzbekistan Signed BIT
- SASTRA Ramanujan Prize 2024
- Vice-President Address to IN-STEP
- India Becomes 3rd Most Powerful Nation in Asia
- Oxygen Bird Park (Amrit Mahotsav Park)
- Bharatiya Kala Mahotsav
- Tsangyang Gyatso Peak

World Mental Health Day 2024

On 10th October, **World Mental Health Day (WMHD) 2024** was observed, bringing attention to the recent workplace suicides that highlight the **significant impact of job-related stress on mental health**, even among those who appear outwardly successful.

- **Theme of WMHD 2024: Mental Health at Work.**
- **Background:** WMHD was first initiated in 1992 by the **World Federation for Mental Health (WFMH)**.
 - **WMHD, organized by the WHO**, aims to raise awareness, promote mental health education, and combat stigma, emphasizing the importance of mental well-being for individuals and communities
 - Examples of mental illness include **depression, anxiety disorders, schizophrenia**, eating disorders and addictive behaviours.
- **Statistics:** The **Economic Survey 2023-24** emphasizes the need to increase the number of mental health professionals and improve mental health services.

Note:



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- According to the **National Mental Health Survey (NMHS) 2015-16**, 10.6% of Indian adults experienced mental disorders, with a treatment gap of 70% to 92% across various conditions.

➤ **Government Initiatives:**

- The **District Mental Health Programme (DMHP)**
- The **National Tele Mental Health Programme (NTMHP)**

➤ **Policy Recommendations on Mental Health:**

- Enhancing efforts to raise the number of psychiatrists **from 0.75 to the WHO standard of 3 per lakh population.**
- **Sensitization of mental health** at the preschool, Anganwadi level to provide precious early identification of disorders.

Read More: [Mental Health Initiatives in India](#)

Difficulties in Increasing Life Expectancy

A new study titled “**Implausibility of Radical Life Extension in Humans in the Twenty-First Century**” reveals that the **steady rise in life expectancy** driven by medical and technological **advancements is now slowing down.**

➤ **About the study:**

- Researchers examined **life expectancy at birth data from 1990 to 2019, focusing on regions with the highest life expectancy**, such as Australia, France, South Korea, Spain, Sweden, and Switzerland.

➤ **Key Findings:**

- The study suggests that the life expectancy in the longest-living regions increased by only **6.5 years between 1990 and 2019.**
 - There is a **need for groundbreaking new medicines** that can **slow the ageing process**, rather than simply enhancing treatments for widespread fatal conditions like **heart attacks and cancer.**
- Current estimates indicate that **girls have a 5.3% chance, and boys have a 1.8% chance, of reaching 100 years of age** in those regions.
 - However, even if common diseases are eradicated, the **decline of organs due to ageing continues** to limit significant lifespan extension.

- Several **drugs are being tested to extend lifespan**, including **metformin**, a **low-cost diabetes drug**, which has been shown to slow ageing in male monkeys.

Read more: [Human Development Report 2023-24](#)

First IPS Officer to Win Gold at Commonwealth Powerlifting

In an extraordinary accomplishment, **IPS officer Anita Roy**, the **Senior Superintendent of Police (SSP)** in **Puducherry**, has become the first IPS officer to secure a **gold medal** at the **Commonwealth International Classic Bench Press Competition, 2024.**

➤ **About:**

- The championships took place in **Sun City, South Africa** in **October 2024.**
- It is **organised by the Commonwealth Powerlifting Federation** and is **affiliated with the International Powerlifting Federation.**
- Its aim is to **foster and promote high-quality, drug-free powerlifting events** at the **Commonwealth International level.**

➤ **The International Powerlifting Federation (IPF):**

- It is the global governing body for the sport of powerlifting. **Established in 1972**, the IPF includes **member federations from over 100 countries.**
- It is officially recognized by the **General Association of International Sports Federations.**

Read More: [Formation of Powerlifting Association in Palamu](#)

International Day of the Girl Child and BBBP

The **Ministry of Women and Child Development** organized a 10-day nationwide celebration of the International Day for the Girl Child from October 2nd to 11th 2023, under the **Beti Bachao Beti Padhao (BBBP) initiative.**

- The **theme** of this year's International Day of the Girl Child is “**Girls' Vision for the Future**”, which highlights the importance of gender equality, education, and opportunities for young girls.

Note:



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- **History:** For the first time, the [1995 Beijing Declaration and Platform for Action](#) introduced a comprehensive plan to promote and advance girls' rights.
 - In 2011, the [United Nations General Assembly](#) adopted [Resolution 66/170](#) to declare 11th October as the International Day of the Girl Child.
 - **BBBP Scheme:**
 - It was **launched in January 2015** with the aim to **address sex selective abortion and the declining child sex ratio (0-6 years)** which was at **919 girls** for every 1,000 boys in 2011.
 - This is a joint initiative of the Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development.
 - The programme is being implemented **across 640 districts** in the country.
 - **Government Initiatives to Promote Gender Parity:**
 - [Scheme for Adolescent Girls](#)
 - [Sukanya Samridhi Yojana](#)
- Read more: [International Girl Child Day](#)

Tele MANAS

The **Jawaharlal Nehru Institute of Postgraduate Medical Education and Research (JIPMER)** has introduced the **"TeleMANAS" (Tele Mental Health Assistance and Networking Across States)** toll-free helpline, providing counseling services for individuals experiencing **mental distress**.

- In 2023, the **Union Ministry of Health and Family Welfare** launched the **toll-free mental health helpline 14416 (Tele-MANAS)** covering **all States and Union Territories** aiming to bridge the gap in access to mental health.
- The app is part of the [National Tele Mental Health Programme of India](#) and provides a comprehensive library of information on mental health.
- It also offers guidance on managing early signs of stress, anxiety, and emotional challenges.
- **National Tele Mental Health Programme (NTMHP):**
 - NTMHP was **launched in October 2022**, to improve **access to quality mental health counselling and care services** in the country.
 - **National Institute of Mental Health and Neuro Sciences (NIMHANS)**, Bengaluru is the **National Apex Centre**, coordinated activities of [Tele MANAS](#) across India.

Read More: [Strengthening Suicide Prevention Efforts in India](#)

UK Naga Skull Auction Controversy

Recently, a 19th century **"horned Naga skull"** was withdrawn from an auction in the UK following significant backlash from authorities in **Nagaland and India**, bringing attention to the sensitive **issue of Indigenous human remains** and the broader debate surrounding **colonial legacies**.

- At the auction **19th-century Naga human skull** was valued at **3,500-4,500 Pounds**, alongside remains from **Papua New Guinea, Borneo, Solomon Islands**, and **African countries** like **Benin, Congo**, and **Nigeria**.
- **Nagaland Chief Minister** and the **Civil society** led the **protest** against the auction.
 - They view it as a continuation of colonial violence and **racism**, perpetuating harmful stereotypes such as labelling the Naga people as **"savages"** and **"headhunters"**, a characterisation **rooted in British colonialism**.
 - The sale of Indigenous human remains, particularly those stolen during colonial rule, was strongly condemned as an **ethical violation**.
 - The **auction of human remains** is said to violate **Article 15** of the [United Nations Declaration on the Rights of Indigenous Peoples \(UNDRIP\)](#), which states: **"Indigenous Peoples have a right to the dignity and diversity of their cultures, traditions, histories, and aspirations, which shall be appropriately reflected in education and public information."**
- The **Naga community** has been involved in efforts to **repatriate ancestral remains** from the **Pitt Rivers Museum** in Oxford, which holds around **6,500 Naga artefacts** collected during the British colonial period.



Read More: [NAGA Conundrum](#)

Note:

Cadaver Donation in India

A recent study indicates that the **increase in medical colleges has led to a higher demand for cadavers**, prompting these institutions to increasingly **rely on unclaimed bodies** for **medical education** due to a **shortage of cadaver donations in India**.

- **About:** **Cadaver donation** involves donating the entire body to science after death, primarily to help train doctors in understanding human anatomy and practising surgery.
- **Eligibility:** Anyone above 18 years can legally consent to donate their body. In case of no prior consent, next of kin can donate.
- **Exclusions:** Bodies of organ donors or those with **infectious diseases** like tuberculosis, HIV, or sepsis, and bodies involved in medico-legal cases may be rejected.
- **Unclaimed Bodies:** Colleges use unclaimed bodies under the **state's Anatomy Act**, where relatives must claim the body within 48 hours.
 - Unclaimed bodies often belong to marginalised or poor individuals, raising ethical questions about consent.
- **Unlike organ donations**, there is **no national organisation** to monitor whole-body donations. Typically, this responsibility falls directly to the anatomy departments of medical colleges.
 - The **National Organ & Tissue Transplant Organization**, under the Ministry of Health & Family Welfare, manages organ transplantation from deceased donors.

Read more: [State of Medical Education in India](#)

Space Based Surveillance (SBS) Mission

Recently, the **Cabinet Committee on Security (CCS)** has approved **phase 3 of the Space Based Surveillance (SBS) mission**.

- It will help in better **land and maritime domain awareness** for civilian and military applications.
- It will involve the launch of at least **52 satellites** in **low earth orbit** and **geostationary orbit** for surveillance.
 - **21 satellites** will be built by **ISRO** and the remaining **31** by private companies.

- The SBS mission is being handled by the **National Security Council Secretariat** and **Defence Space Agency** under the Ministry of Defence.
 - The three armed forces will have **dedicated satellites** for their land, sea or air-based missions.
- **SBS 1** was launched in **2001**, and involved the launch of **four satellites** e.g., **Risat 2** while **SBS 2** came in **2013** with the launch of **six satellites** e.g., **Risat 2A**.
- The **SBS 3 mission** will be supported by India's acquisition of **31 Predator drones** from the US, joint construction of **military satellites** with France and **anti-satellite missile** capabilities.
- India aims to acquire capabilities to **detect enemy submarines** in the Indo-Pacific and **monitor infrastructure construction** by adversaries along its land and sea borders.

Read More: [Satellite-Based Communication](#)

World Habitat Day 2024

On 9th October, the **Ministry of Housing and Urban Affairs (MoHUA)** observed World Habitat Day 2024 at Vigyan Bhawan, New Delhi.

- **World Habitat Day:**
 - **Background:** In 1985, the **UN** designated the **first Monday of October** each year as World Habitat Day.
 - The day is also intended to remind the world that we all have the **power and the responsibility to shape the future of our cities** and towns.
 - The origin of **World Habitat Day** can be traced back to **Nairobi, Kenya, in 1986**.
 - Since its **first celebration in 1986**, the day has centered on improving urban living conditions.
 - **Theme for 2024: 'Engaging Youth to Create a Better Urban Future,'** focuses on addressing the challenges and opportunities of rapid urbanisation.
 - It aims to encourage the **youth to engage in urban planning and decision-making** to foster more inclusive, resilient, and sustainable urban environments.
 - **Importance:**
 - It raises awareness of the **fundamental right to shelter**, reminding that everyone deserves a safe and comfortable home.
 - It also **highlights the importance of environmental preservation** amid increasing urbanisation.

Read More: [World Habitat Day 2023](#)

Note:



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Telangana Begins Sub-Categorization of SCs

Recently, the Telangana government has initiated the process of categorizing **Scheduled Castes (SCs)** into four distinct sub-groups: A, B, C, and D.

- This development follows the **Supreme Court's** landmark judgment which granted states the authority to **sub-classify reserved categories**, including **Scheduled Castes (SCs)** and **Scheduled Tribes (STs)**, for reservation purposes.
- **Supreme Court Ruling:**
 - The Supreme Court, in a **review-judgment of Punjab and Haryana High Court**, allowed states to sub-classify SCs and STs under **Article 14 of the Constitution** based on **varying levels of backwardness**.
 - It ruled that the 'creamy layer' principle, previously applied only to **Other Backward Classes (OBCs)** (as highlighted in **Indra Sawhney Case**), should now also be applied to SCs and STs.
 - It also held that reservations are applicable **solely to the first generation**; if a family member has availed of the benefits, the **second generation** becomes ineligible.

Read More: [SC Allows for Sub-Classification of SCs and STs](#)

PM Internship Scheme

Recently, the Ministry of Corporate Affairs has launched the **Prime Minister's Internship Scheme**, which was announced in the **Union budget 2024**.

- **About the Scheme:**
 - The scheme aims to provide students with **internship opportunities to address youth unemployment**.
 - It seeks to provide internships to 1 crore young people **over the next five years**.
 - Applicants will get a monthly stipend of ₹4,500 from the government, and an additional ₹500 by companies as part of their **Corporate Social Responsibility** initiatives consisting of one year.
 - A **one-time grant of ₹6,000** will be provided upon enrollment, along with insurance coverage under the **PM Jeevan Jyoti Bima Yojana** and **PM Suraksha Bima Yojana**.

➤ Eligibility Criteria:

- **Age:** 21- 24 years.
- **Education:** At least Class 10th; graduates from premier institutions (**IITs, IIMs**) and professional qualifications (CA) are excluded.
- **Employment Status:** Must not be in full-time employment.
- **Income Restriction:** Family income must not exceed ₹8 lakh annually; families with government employees are ineligible.

➤ Benefits of the Scheme:

- Offers practical skills in real-world environment.
- It will provide financial support to the youngsters.

Read more: [The State of Youth Employment in India, Corporate Social Responsibility - A Strategic Endeavour](#)

150th Anniversary of Universal Postal Union

The **Department of Posts** has released **commemorative stamps** marking the 150th anniversary of the **Universal Postal Union (UPU)** on **World Post Day (9th October)**.

- UPU is a **United Nations** specialised agency and the **postal sector's primary forum** for international cooperation.
- UPU was established on **9th October 1874**, in **Berne, Switzerland** and **India joined UPU in 1876**.
- UPU has played a crucial role in **standardising international postal regulations**, facilitating seamless mail exchange.
- UPU is **headquartered in Berne** and is the **2nd oldest** international organisation worldwide after **International Telegraph Union (1865)**.
- **Year 2024** also marks **170 years** of establishment of **India Post** which was founded in **1854** during the tenure of **Lord Dalhousie**.
- **Postal Service in India:**

- **1852:** Issuance of "**Scinde Dawk**," India's first postage stamp.
- **1854:** Establishment of **India's first post office in Bombay**.

Read More: [Universal Postal Union](#)

Note:



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National Maritime Heritage Complex

Recently, the **Union Cabinet** has approved the development of the **National Maritime Heritage Complex (NMHC)** at **Lothal**, Gujarat.

- It will be developed by the **Ministry of Ports, Shipping & Waterway (MoPSW)** to showcase **4,500 years old maritime heritage** of India.
- The **Directorate General of Lighthouses and Lightships (DGLL)** under **MoPSW** will fund the construction of a **Lighthouse Museum**, which is set to be the **tallest in the world**.
- **About Lothal:** It is one of the **southernmost sites** of the **Harappan civilization**, located in the **Bhal region of Gujarat**.
 - It is believed to have been built in **2,200 BC**. Lothal had the world's earliest known **dock**, connecting the city to an ancient course of the **Sabarmati river**.
 - Lothal was nominated in April 2014 as a **UNESCO World Heritage Site**.
 - Lothal was discovered in **1954 by SR Rao**.
- **Surkotada and Dholavira** are other important Harappan sites in Gujarat.

Read More: [Lothal: World's Earliest Known Dock](#)

USCIRF International Religious Freedom Report

Recently, India rejected the **International Religious Freedom Report** of the **US Commission on International Religious Freedom's (USCIRF)**, labeling it a biased organization with a political agenda.

- **Highlights of the USCIRF Report (2024):**
 - The report called for India to be designated as a **"Country of Particular Concern" (CPC)**.
 - Countries that commit **systematic, ongoing, and egregious violations** of religious freedom are designated as a CPC by the **US State Department**.
 - The report states that vigilante groups **killed, assaulted, and lynched individuals**, while religious leaders were unjustly arrested, and homes and places of worship were destroyed.
 - It also criticised the **Citizenship Amendment Act, 2019, Uniform Civil Code**, and state-level anti-conversion and cow slaughter laws.

- **USCIRF:** USCIRF is a US federal commission established in 1998 under the International Religious Freedom Act, with commissioners appointed by the President and congressional leaders from both parties.

- It is based on **international human rights standards**, especially **Article 18 of the Universal Declaration of Human Rights** that ensured **freedom of religion**.
- It monitors the universal **right to freedom of religion or belief (FoRB)** in countries other than the US.

Read More: [Universal Declaration of Human Rights](#)

Revised Procurement Norms for AI Computing

The **Ministry of Electronics and IT (MeitY)** has revised its procurement norms for **Artificial Intelligence (AI)** computing capacity under the **IndiaAI Mission** to encourage broader participation from various companies, including **start-ups**.

- **Revised Procurement Norms:**

- **Annual Turnover Requirements:** For **primary bidders**, it has been reduced from **Rs 100 crore to Rs 50 crore**, while **non-primary** consortium members now need **Rs 25 crore**, down from Rs 50 crore.
 - A **primary bidder** is an entity that is **solely responsible** for the **successful performance** of all subcontractors offered in response to a bid.
- **Graphic Processing Units (GPUs) Requirements:** The requirement of **1,000 GPUs** was changed from a performance threshold of **300 TFLOPS** (Tera Floating-point Operations Per Second) for **FP16** (Half Precision) to **150 TFLOPS**.
 - The AI compute memory requirement was reduced from **40 GB to 24 GB**.
 - TFLOPS measures a system's computing power; for instance, **10 TFLOPS** means it can perform **10 trillion FP16 calculations per second**.
- **Local Sourcing:** Components for **AI cloud services** must be procured from **Class I (50% local content)** or **Class II (20-50% local content)** suppliers to comply with the **'Make in India'** initiative.

Read More: [IndiaAI Mission](#)

Note:



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India Eliminates Trachoma as a Public Health Problem

The **World Health Organization (WHO)** has officially recognized India for eliminating **Trachoma** as a public health issue.

- Trachoma is a contagious bacterial eye infection caused by *Chlamydia Trachomatis*, which can lead to **irreversible blindness if left untreated**.
 - It spreads through contact with the eyes, eyelids, nose, or throat secretions of infected individuals.
 - It is categorised as a **neglected tropical disease** and affects around **150 million people** globally, with **6 million** at risk of blindness.

S.A.F.E.

The World Health Organization leads an international alliance for the global elimination of trachoma, the Alliance for Global Elimination of Trachoma by the year 2020 (GET2020). The Alliance is guided by the WHO-endorsed SAFE strategy:

Surgery	➤ To correct in-turned lashes
Antibiotics	➤ Pfizer donated Zithromax® to treat active infection, using Azithromycin
Facial Cleanliness	➤ To reduce disease transmission through face washing and hygiene practices
Environmental Improvement	➤ To increase access to and use of clean water and sanitation

- Trachoma was a leading cause of blindness in India during the **1950s-60s**. India launched the **National Trachoma Control Program** in **1963**, which was later integrated into the **National Program for Control of Blindness (NPCB)**.
- In 1971, Trachoma caused **5% of blindness in India**, now reduced to less than 1% through the **National Programme for Control of Blindness & Visual Impairment (NPCBVI)** and the **WHO SAFE strategy**.
 - India was declared free from **infective Trachoma** in **2017**, with ongoing surveillance from 2019 to 2024.
- The **National Trachomatous Trichiasis (TT only) Survey** was conducted in **200 endemic districts** from **2021-24** as part of WHO's mandate.

- Reports compiled by the **NPCBVI team** were submitted to WHO for final verification, leading to the declaration that India has eliminated Trachoma as a public health problem.

Read more: **Global Report on Neglected Tropical Diseases 2024**

World Cerebral Palsy Day

The **National Trust** for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disability organised a National Meet to mark **World Cerebral Palsy Day (WCPD)**, focusing on innovation and inclusion for individuals with Cerebral palsy (CP).

- **WCPD (6th October every year)** is a global movement that started in 2012, uniting individuals with **cerebral palsy** from over 100 countries to advocate for equal rights, access, and opportunities in society.
 - The theme for 2024 WCPD is "**Uniquely CP**", which emphasises that a person's disability does not define their entire identity.
- CP is a group of disorders that **affect movement, balance, and posture** due to abnormal brain development or damage. It is the most common **motor disability in childhood**, with symptoms varying significantly among individuals.
 - **Causes:** Majority (85-90%) of CP is congenital, occurring before (during brain development) or during birth. Acquired CP is less common and often linked to infections or head injuries after birth.
 - **Treatment:** It is a permanent, non-progressive condition with no cure, but treatments can enhance symptoms, functioning, and quality of life.
- The **National Trust**, a statutory body under the **Ministry of Social Justice and Empowerment**, was established under the "**National Trust for the Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation, and Multiple Disabilities**" Act (1999).
 - Its aim is to create an inclusive society that empowers **Persons with Disabilities** to live independently with dignity and equal rights.

Read more: **Empowering Persons with Disabilities**

Note:



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Rare Rain in the Sahara Desert

Recently, a rare **deluge of rainfall** has **flooded** palm trees and **sand dunes** of the **Sahara desert** in Morocco.

- The rain was triggered by the **northward shift** of the **Intertropical Convergence Zone (ITCZ)**, which has moved further north than usual, resulting in **equatorial-like downpours** in the Sahara.
 - ITCZ has produced a powerful **extratropical cyclone** that swept through northwestern Africa.
 - An extra-tropical cyclone is a **low-pressure system** which develops in latitudes **outside the tropics** which can bring heavy rainfall.
- Repositioning of ITCZ may be linked to **record-high ocean temperatures** and **climate change**.
- **Sahara Desert**: It is the **world's largest hot desert** having a **length of approximately 4,800 km** and a maximum **width of 1,800 km**.
 - It occupies about **31%** of the entire **African continent**.
 - It stretches among **11 North African nations** including Algeria, Egypt, Mali, Morocco, Western Sahara, Tunisia, Chad, Libya, Mauritania, Niger, and Sudan.



Read More: [Deserts in the World](#)

Note:

Claim of Juvenility

Recently, the **Supreme Court** ruled that **juvenility** can be claimed at **any stage of criminal proceedings**, including **after the conviction** has become final.

- The court pointed out that **juvenility is a right** and not subject to waiver due to **delays or procedural technicalities**.
- The court held that even a final judgement does not prevent a reevaluation of the case if juvenility is in question.
- **Section 94** of the **Juvenile Justice Act, 2015** allows juvenility claims to be raised even **post-conviction**, ensuring that the rights of juveniles are protected regardless of procedural delays.
- Similarly, in the **Abuzar Hossain Vs State of West Bengal Case, 2012**, the Supreme Court had allowed **juvenility claims at any stage** of legal proceedings.
- As per the Juvenile Justice Act, 2015 a **juvenile** is defined as a person who has **not completed eighteen years of age**.
 - Juveniles **aged 16-18 years** would be tried as **adults**, if charged with heinous crimes.

Read More: **[Issue with the Juvenile Justice Amendment Act, 2021](#)**

92nd Indian Air Force Day

Recently, the **92nd anniversary** of the **Indian Air Force (IAF)** was celebrated at **Marina Beach, Chennai**, featuring an airshow.

- The theme is “**Bhartiya Vayu Sena: Saksham, Sashakt, Atmanirbhar**” (Potent, Powerful, and Self-Reliant).
 - It reflects the IAFs commitment to **self-reliance and modernisation**, aligning with India’s vision for a robust defence capability.
- The **motto** of IAF is **Touch the sky with Glory (Nabhah Sparsam Diptam)** which has been taken from the eleventh chapter of the **Bhagavad Gita**.
- The Indian Air Force was formed on **18th October 1932**, The first **operational flight** of the IAF took place on **1st April 1933**.
- Problems concerning the defense of India were reassessed in **1939 by the Chatfield Committee**. It proposed a scheme to raise **five flights** on a voluntary basis to assist in the **defence** of the **principal ports**.

Read More: **[India’s 5G Fighter Aircraft and LCA Tejas](#)**

World Cotton Day 2024

On the occasion of **World Cotton Day (7th October 2024)** the **Ministry of Textiles** jointly hosted the conference with **Cotton Corporation of India** and **CITI** focusing on the theme of “**Megatrends Shaping Cotton Textile Value Chain**”.

- **Aim:**
 - To **promote the cotton textile industry** and its contribution to the economy.
 - To **address challenges faced by the cotton value chain** and explore solutions.
 - To highlight the importance of **sustainability and traceability in the cotton industry**.
- **Key Highlights of Cotton Day:**
 - The government aims to achieve a **textile export target of USD 100 billion by 2030**.
 - Adoption of practices like **high-density planting**, closer spacing, and **drip fertigation** can increase cotton yield.
 - **Weed management** is a significant challenge for cotton farmers, which can be addressed through new seed varieties.
 - The event showcased **Kasturi cotton products**, **recycled textiles**, and **handloom products**.
- **Few Facts About the Cotton Industry:**
 - **India** is the **world’s largest producer of cotton**, accounting for about **23% of the world’s cotton production**.
 - India is the **world’s second-largest exporter of cotton**, after the United States. In 2023–2024.
 - India’s **major cotton importers** include **Bangladesh, China, and Vietnam**.

Read More: **[Cotton Corporation of India \(CCI\)](#)**, **[Confederation of Indian Textile Industries \(CITI\)](#)**.

FPIs Investment Exceeds USD 1 Trillion in Indian Securities

Foreign Portfolio Investors (FPIs) have accumulated about **USD 1.1 trillion** in **Indian securities**, highlighting India’s increasing attractiveness to global investors.

- This represents a **threefold increase** from the **Covid-19** low of **USD 329 billion** in March 2020. **India’s market capitalisation** has also quadrupled, now around **USD 5.6 trillion**.

Note:



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- Indian markets have **provided strong long-term returns**, with a 10-year annualised return of **8.5% for the Sensex** in US dollar terms, compared to 9.7% for the **Dow Jones index of the United States (US)**.
- **Liberalised investment rules** and a supportive regulatory framework have driven this growth since India opened to **FPIs in 1992** (then known as **foreign institutional investors (FIIs)**), following the **1991 balance of payments crisis**.
 - FPIs consist of **non-residents investing in Indian financial assets** like shares, government bonds, corporate bonds, convertible securities, and infrastructure securities.
 - FPIs include investment groups such as **FIIs, Qualified Foreign Investors (QFIs), and subaccounts**.
- The primary sources of FPI inflows into India are the **US, Singapore, and Luxembourg**.

Read more: [Shifts in Foreign Portfolio Investments](#)

[In India](#)

Strengthening India-UAE Investment Relations

India has reduced the local remedies exhaustion period for **United Arab Emirates (UAE)** investors from five years to three years under the **India-UAE Bilateral Investment Treaty (BIT)**.

- The BIT came into force on 31st August 2024, ensuring continuity of investment protection after the expiration of the earlier **Bilateral Investment Promotion and Protection Agreement (BIPPA)**.
 - The BIT assures minimum treatment standards (fairly and equitably) and independent arbitration for dispute resolution.
 - The local remedies exhaustion period is the time frame an investor must attempt to resolve a dispute through the host country's legal system **before seeking international arbitration**.
- In another development, the **Abu Dhabi Investment Authority (ADIA)** has opened an office in **GIFT City** to enhance its investment activities in India.

- UAE continues to be the **largest Arab investor in India**, with investments amounting to around USD 3 billion in FY 2023-24.
- The UAE was the **sixth-largest Foreign Direct Investment (FDI) source for FY 2023-24** and the seventh-largest overall since 2000.
- Over 70% of all **Gulf Cooperation Council (GCC)** investments in India come from the UAE.
- Additionally, India and the UAE are advancing plans for a **USD 2 billion food corridor** to enhance UAE food security and support Indian farmers, with the **Comprehensive Economic Partnership Agreement (CEPA)** and BIT ensuring duty-free access and a stable investment climate for UAE businesses.

Read more: [India-UAE Relations](#)

Greening of Antarctic Peninsula

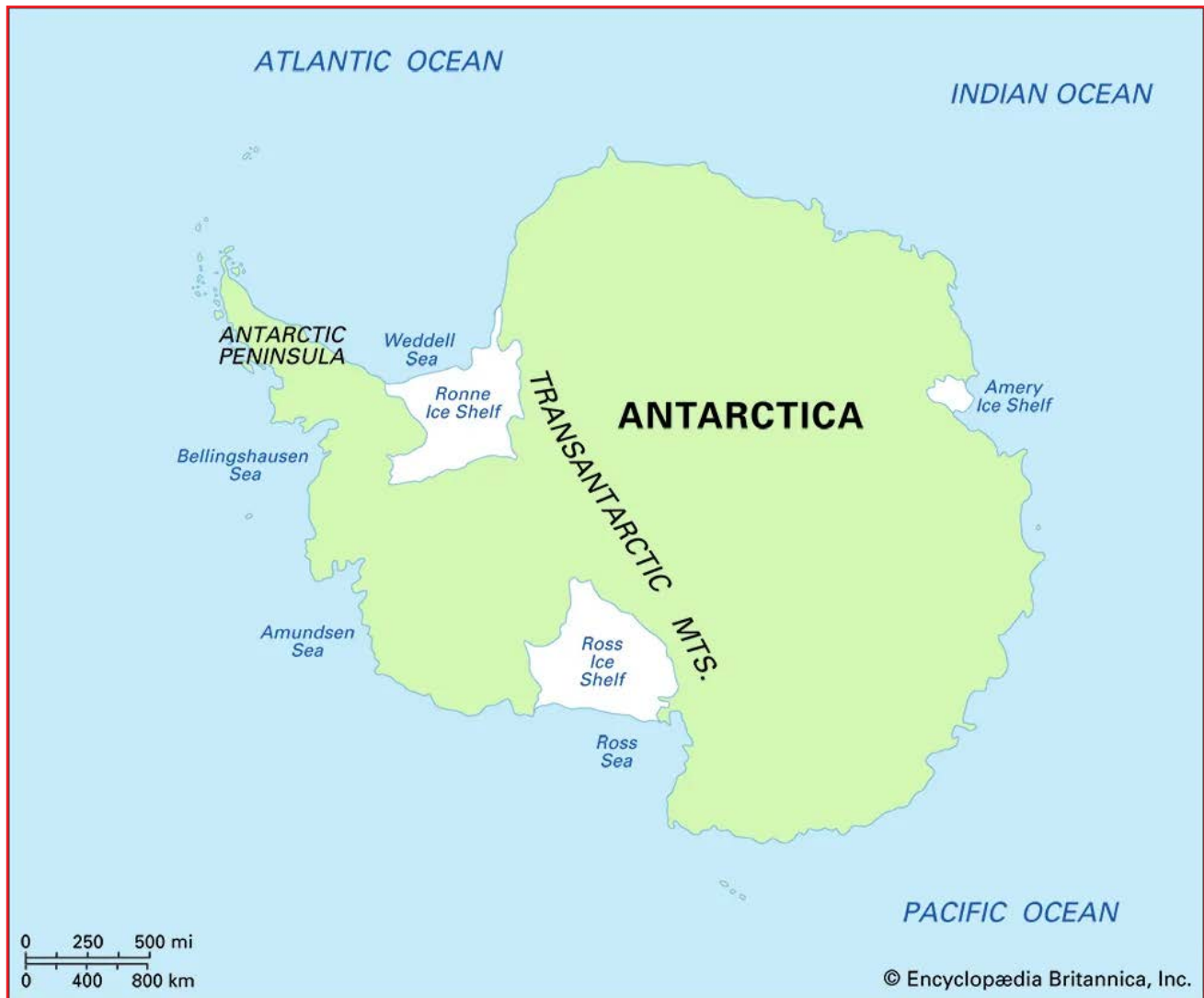
The **Antarctic peninsula** has experienced a **10-fold increase in vegetation** from less than **1 square km in 1986** to almost **12 square km by 2021**.

- The **rate of change** in vegetation cover in **2016-2021** was **0.424 km² per year** compared to the entire **35-year-long study period of 0.317 km² per year**.
- Development of **moss ecosystems** can lead to **organic soil formation** and higher plant colonisation.
 - It also raises concerns about the potential introduction of **non-native and invasive species**.
 - **Mosses** are **pioneer species** that start ecological succession.
 - **Ecological succession** is the **steady and gradual change** in a species of a given area with respect to the changing environment.
- This **greening** is likely due to **accelerated warming** in the region, which has been heating up **five times faster** than the global average.
- The Antarctic Peninsula Ice Sheet is sensitive to **climate change** due to its **small size and northerly location**. Since 1950, it has warmed by **nearly 3°C**.
- As glaciers recede, more land becomes available for **colonisation by plants**, further accelerating the **greening process**.

Note:



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Read More: [India's Tryst with Antarctica](#)

International Energy Efficiency Hub

Recently, the **Union Cabinet** has signed the **Letter of Intent** thus enabling India to join the **International Energy Efficiency Hub (IEEH)**.

- IEEH is a global platform dedicated to fostering collaboration and promoting **energy efficiency** worldwide.
- It brings together **governments, international organisations, and private sector** entities to share knowledge, best practices, and **innovative solutions**.
- By joining IEEH, India will gain access to a vast network of **experts and resources**, enabling it to enhance its **domestic energy efficiency initiatives**.
- The **Bureau of Energy Efficiency (BEE)** has been designated as the implementing agency for the IEEH on behalf of India.
- As of July 2024, **16 countries** including **China**, France, Germany, Japan, Korea, Russia, Saudi Arabia, United States and United Kingdom have joined the Hub.

Note:



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- IEEH was established in 2020 as the successor to the [International Partnership for Energy Efficiency Cooperation \(IPEEC\)](#), in which India was a member.

Read More: [Bureau of Energy Efficiency](#)

India Joins 44th Codex Nutrition Session

India participated in the 44th session of the **Codex Committee on Nutrition and Foods for Special Dietary Uses (CCNFSDU)** in Germany, contributing significantly to global food safety and nutrition standards.

- CCNFSDU is a unit of the [Codex Alimentarius Commission\(CAC\)](#), responsible for developing global standards for **special dietary foods such as infant formulas, dietary supplements, and medical foods**.
 - The CAC, established in 1963 by the [Food and Agriculture Organization\(FAO\)](#) and [World Health Organization\(WHO\)](#), sets international food standards to protect consumer health and ensure fair trade practices, with input from its **189 Codex Members(including India)**.
- **India at 44th Session of CCNFSDU:** India stressed the need to update outdated **FAO/WHO probiotic guidelines from 2001 and 2002**, highlighting that the current guidelines are two decades old.
 - The country called for **harmonized regulations** to enhance global trade.
 - India suggested that the combined **Nutrient Reference Value-Requirement (NRV-R)** for children aged 6 to 36 months should be calculated by taking the mean of two age groups(6–12 months and 12–36 months), and it was accepted by the CCNFSDU.
 - NRVs-R are recommendations for nutritional intake based on current scientific data, established for target groups or populations.

Read more: [Codex Alimentarius Commission](#)

10 years of Swachh Bharat Mission

Recently, the [Swachh Bharat Mission \(SBM\)](#) marked its 10th anniversary on 2nd October 2024.

About:

- It was launched on 2nd October 2014 by the **Ministry of Drinking Water and Sanitation, and the Ministry of Housing and Urban Affairs**.
- It was also divided into [SBM-Gramin](#) for rural areas and [SBM-Urban](#) for urban centers.

Aim:

- It aimed to make India [Open Defecation Free \(ODF\)](#) by constructing individual and community toilets, and to implement waste management systems in school and anganwadi toilets.
 - An area can be notified or **declared as ODF** if at any point of the day, not even a single person is found defecating in the open.

Achievements:

- Under the mission, **10 crore toilets** were built, and almost **6 lakh villages** have been designated as [ODF](#) on 2nd October, 2019.
 - Upon completing **five years in 2021**, the government launched [SBM 2.0](#) focusing on creating garbage-free cities, managing faecal sludge, addressing plastic waste, and improving greywater management.
- Urban India has become [ODF](#), with all 4,715 [Urban Local Bodies \(ULBs\)](#) completely ODF.

Read More: [Making Swachh Bharat Mission A Reality](#)

Government to Regulate Clinical Research Organisations

The government has established [Standard Operating Procedures \(SOPs\)](#) for clinical research organizations to ensure **the safety of clinical trials**. These updated regulations are part of the **New Drugs and Clinical Trials (Amendment) Rules, 2024**.

- Under this the government has defined roles, duties and liabilities to monitor through registration, approval of licence and renewal, validity period, inspection, and suspension of license if found non-compliant.
- The aim is to **maintain product quality, expedite clinical trials** of novel medications and vaccines, and bring in more transparency.
- These have been framed after consultation with [the Drugs and Technical Advisory Committee \(DTAB\)](#).

Note:



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- **Clinical Research Organization (CRO):**
 - A CRO is an entity that can be commercial, academic, individually owned, or an organization with legal status.
 - It is appointed by the sponsor to manage specific tasks, duties, or obligations.
 - These responsibilities relate to clinical trials, bioavailability, or bioequivalence studies.
 - The delegation or transfer of responsibilities must be done in writing.
- **Drugs Technical Advisory Board:**
 - It is a statutory body constituted under the [Drugs and Cosmetics Act, 1940](#).
 - Its function is to **advise** the Central government and State government on **technical matters related to drugs and cosmetics**.

Read More: [Drugs and Clinical Trials Rules, 2019](#)

India-Nepal-Bangladesh Tripartite Agreement

Recently, **Nepal, India and Bangladesh** signed a **tripartite agreement** to facilitate **cross-border electricity trade**.

- Under the agreement, **Nepal will export its surplus electricity to Bangladesh** from 15th June to 15th November each year.
 - India will facilitate the transmission of electricity from Nepal to Bangladesh.
- In the first phase, Nepal will export 40 MW of **hydroelectric power** to Bangladesh **through Indian territory** at the rate of 6.4 cents per unit.
- India, Nepal and Bangladesh are part of many International groups.
 - [South Asian Association for Regional Cooperation \(SAARC\)](#)
 - [Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation \(BIMSTEC\)](#)
 - [Bangladesh, Bhutan, India, and Nepal \(BBIN\)](#)
 - [Non Aligned Movement](#)

Read More: [India-Nepal Relations](#), [India-Bangladesh Relations](#)

Exercise KAZIND 2024

The **8th edition** of the India-Kazakhstan **Joint Military Exercise KAZIND-2024**, commenced in **Uttarakhand** and is being held from 30th September to 13th October 2024.

- The Exercise between India and Kazakhstan was initiated as 'Exercise PRABAL DOSTYK' in 2016.
 - **After the second edition**, it was upgraded to a company-level exercise and renamed 'Exercise KAZIND'.
- The exercise aims to **enhance joint military capabilities for counter-terrorism operations in semi-urban and mountainous terrain**, focusing on physical fitness, tactical drills, and sharing of best practices under **Chapter VII of the UN Charter**.
 - Chapter VII includes action with respect to threats to the Peace, Breaches of the Peace, and Acts of Aggression.



Read More: [Exercise Kazind-2023](#)

Dadasaheb Phalke Award to Mithun Chakraborty

Recently, the **Ministry of Information and Broadcasting** has announced that the **Dadasaheb Phalke Award** for 2022 will be awarded to the actor and former **Rajya Sabha Member of Parliament (MP)** Mithun Chakraborty.

- It will be presented during the **70th National Film Awards** ceremony, for his significant contribution to Indian cinema.
- He will be the **54th recipient** of the DadaSaheb Phalke Award.
- **About Dadasaheb Phalke Award:**
 - It is the **country's highest film honour** introduced in 1969, conferred for "Outstanding contribution for the growth and development of Indian cinema".

Note:



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- It was awarded for the first time to **Devika Rani**, “the first lady of Indian cinema”.
- This award includes a ‘**Swarna Kamal**,’ a cash prize of **INR 10 lakh**, a certificate, a silk roll, and a shawl.
- It is presented by the **President of India**.

➤ **About Dhundiraj Govind Phalke:**

- He was an Indian producer, director, and screenwriter, who directed **India’s first feature film Raja Harishchandra (1913)**.
- He is known as the “**Father of Indian Cinema**”.

Read More: [National Film Awards](#)

BharatGen

Recently, the Ministry of Science & Technology launched BharatGen, a **generative AI initiative** designed to enhance public service delivery.

- It aims to create **foundational models** in language, speech, and computer vision to address India’s **socio-cultural and linguistic diversity**.
- It is the world’s first government-funded **Multimodal Large Language Model (LLM)** project for Indian languages.
 - LLMs are AI systems capable of **understanding and generating** human language by processing vast amounts of text data.
- It is led by **IIT Bombay** under the **National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)**, and involves collaboration with academic institutions like **IITs and IIM Indore**.
- It emphasises developing processes to curate **India-centric data**, enhancing the country’s control over its **digital resources**.
- It has **four key features**:
 - **Multilingual and multimodal models**,
 - **Bhartiya dataset-based training**,
 - **Open-source platform**,
 - **Generative AI research ecosystem** in India.
 - Generative AI can produce various types of content, including **text, imagery, and audio**.

Read More: [Large Language Models \(LLMs\)](#)

International Day of Older Persons 2024

The **Ministry of Social Justice and Empowerment** observed **International Day of Older Persons 2024** on **1st October 2024**.

- **Theme for 2024: Ageing with Dignity:** The Importance of Strengthening Care and Support Systems for Older Persons Worldwide
- **About International Day of Older Persons:**
 - This day is celebrated to recognise the contributions made by older people and promote the need for inclusive and age-friendly societies.
 - Designated by the **UN General Assembly** on **14th October, 1990**, it is based on the **Vienna International Plan of Action on Ageing (1982)** and the **UN Principles for Older Persons**.
- **Commitments & Global Framework:**
 - The **UN Decade of Healthy Ageing (2021-2030)** aligns with **SDG-3** on Good Health and Well-Being.
 - India formulated the **National Policy on Older Persons (NPOP)** in 1999 and is a signatory to the **Madrid International Plan of Action on Ageing (2002)**.
- As of December 2023, India has **153 million** elderly individuals (60+), projected to rise to **347 million by 2050**, making up **20.8% of the total population**.
 - Globally, the elderly population rose from about 260 million in 1980 to **761 million in 2021**, with projections indicating it will increase from under 10% in 2021 to around **17% by 2050**.

Read More: [Empowering India’s Elderly](#).

Jal Hi AMRIT Scheme

Recently, the **Ministry of Housing and Urban Affairs** approved the **Jal Hi AMRIT Scheme** to promote efficient **water management**.

- It is being launched under **AMRUT 2.0 reforms**.
- It **incentivises** states and Union Territories (UTs) to manage **sewage treatment plants (STPs)** efficiently, ensuring the production of **good-quality, recyclable treated water**.
 - STPs **purify water** by removing **sewage and contaminants**, making it **suitable** to be released into **natural water sources**.

Note:



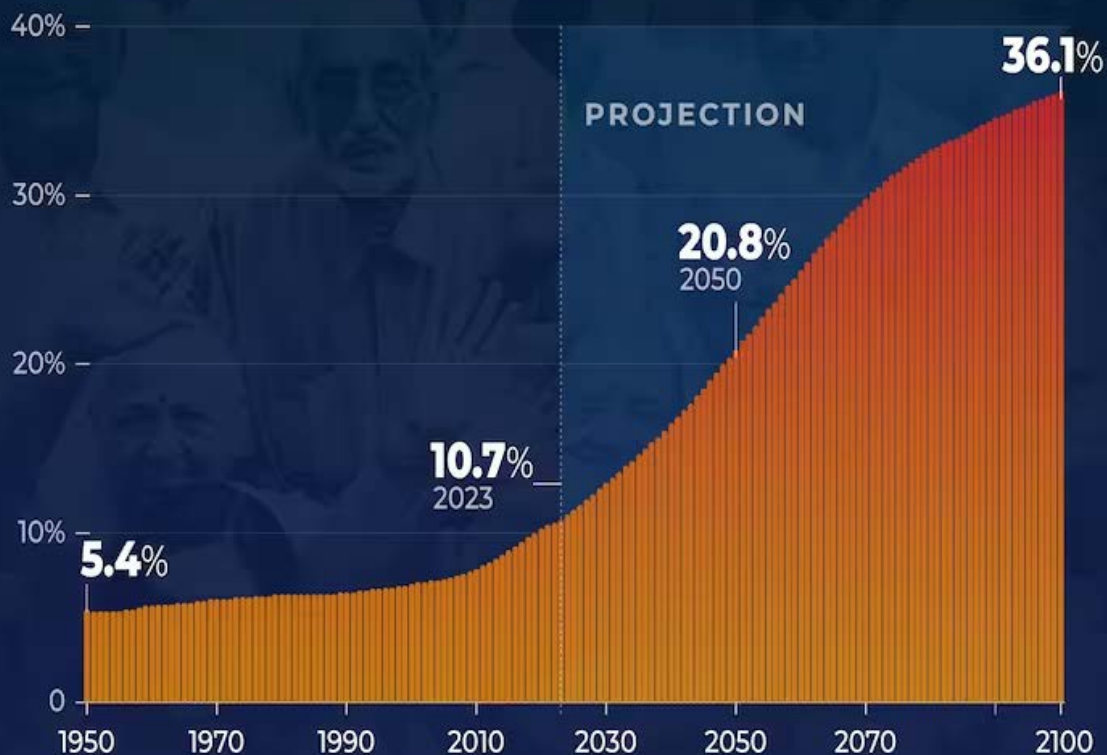
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India's rapidly growing elderly population



Senior citizens constitute about 10% of the population currently, but this will double by 2050

Share of elderly (60+) in population (%)



Source: World Population Prospects 2022
Graphic: Jaipal Sharma & Ankita Tiwari

- **Clean Water Credits** will be awarded in terms of **Star-rating between 3 stars to 5 stars certificate** valid for six months.
- STPs with **Clean Water Credits of 3-star and above** in different groups as below will be given **financial incentives**.
- According to the **Central Pollution Control Board** (March 2021), India's current water treatment capacity is **27.3%** and the sewage treatment capacity is **18.6 %** (with another **5.2 % capacity in development**).

Note:



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- Both Swachh **Bharat Mission 2.0** and **AMRUT 2.0** focuses on waste water management.
 - **AMRUT 1.0** primarily aimed at providing basic services such as **water supply, sewerage management** while **AMRUT 2.0** focuses on **City Water Balance Plan (CWBP)** to **recycle/reuse treated sewage**.
- Read More: [Waste Water Management](#)

Global Innovation Index 2024

Recently, India secured **39th position** among **133 global economies** in the **Global Innovation Index 2024**. In 2023, India ranked **40th rank** out of **132 economies**.



- **Global Innovation Index:**
 - The Global Innovation Index serves as a key reference for **evaluating the performance of an economy's innovation ecosystem**.

Note:

- It is **published annually** by the **World Intellectual Property Organization (WIPO)** and acts as a **valuable benchmarking tool for policymakers, business leaders, and other stakeholders**.
- **World Intellectual Property Organization (WIPO):**
 - It serves as the global forum for **Intellectual Property (IP)** services, policy, information, and cooperation.
 - It is a self-funding agency of the **United Nations**, comprising 193 member states.
 - The organisation aims to **develop a balanced and effective international IP system** that fosters innovation and creativity for everyone's benefit.
 - WIPO's mandate, governing bodies, and procedures are outlined in the **WIPO Convention, which was established in 1967**.

Read More: [Global Innovation Index 2023](#)

Anna Darpan

Recently, the **Food Corporation of India (FCI)** has launched a **digital transformation initiative to modernize** its supply chain management system, known as **'Depot Online System'**, with the implementation of a new, microservices-based integrated supply chain management system named **Anna Darpan**.

- **Anna Darpan system:** It is designed with specific key objectives which are aligned with the strategic vision of the FCI leadership.
 - The system aims to address and overcome the limitations present in the existing systems like:
 - Improved Efficiency and Productivity
 - Interactive and User-Friendly UI Design
 - Data-Driven Decision Making
 - Integration with Internal and External Systems
 - Merger of Existing Internal Systems
 - Mobile-First Approach
- The system is being developed to streamline and improve supply chain operations and services at all levels.
 - It covers operations at **Mandis, Mills, Depots (both owned and hired)**, as well as **divisional, regional, zonal, and headquarters levels**.
- **Food Corporation of India (FCI):**
 - FCI is a **Public Sector Undertaking**, under the **Department of Food & Public Distribution, Ministry of Consumer Affairs, Food and Public Distribution**.

- It is a **statutory body set up in 1965** under the **Food Corporations Act 1964**.
- It has the primary duty to undertake purchase, store, move/transport, distribute and sell food grains and other foodstuffs.

Read More: [Revamping Buffer Stock](#)

Rosh Hashanah

Recently, **Prime Minister wished** the Prime Minister of **Israel** and greeted **Jewish community** on the occasion of **Rosh Hashanah**.

- Rosh Hashanah is **Jewish New Year** and is among the most sacred days in the Jewish faith.
- It marks the **beginning** of the Jewish month of **Tishri**, which is the **7th month** according to the **Hebrew calendar**.
- It is believed by the Jewish community to be the day when **God created the world**, including **Adam and Eve**.
- Rosh Hashanah is also known as **Yom Hadin (Day of Judgment)** on which God opens the **Books of Life and Death**, which are then **sealed on Yom Kippur**.
 - Yom Kippur means **"Day of Atonement"** on which Jewish people **pray, seek forgiveness and a fresh start**.
- The central ceremony features the blowing of the **shofar horn** in select **synagogues**, along with community prayers held beside a body of water.
 - A shofar is an ancient **musical instrument** typically made of a **ram's (a species of sheep) horn**, used for Jewish **religious purposes**.

Read More: [Hanukkah](#)

India and Uzbekistan Signed BIT

Recently, **India and Uzbekistan** signed a **Bilateral Investment Treaty (BIT)** to assure appropriate **protection for investors** from both countries.

- It assures a **minimum standard of treatment** and **non-discrimination** while offering independent **arbitration** for dispute resolution.
- However, both countries have the **right to regulate** and provide **adequate policy space** for public interest regulation, without compromising investor protection.

Note:



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MAJOR TRADE AGREEMENTS OF INDIA

Free Trade Agreement (FTA) With Neighbouring Countries

- India-Sri Lanka FTA
- India-Nepal Treaty of Trade
- India-Bhutan Agreement on Trade, Commerce, and Transit

A free trade agreement is a comprehensive deal between countries, offering preferential trade terms and tariff concessions, with a negative list excluding specific products and services.

Regional FTA's of India

- **India ASEAN Trade in Goods Agreement (11):** 10 ASEAN countries + India
- **South Asia Free Trade Agreement (7):** India, Pakistan, Nepal, Sri Lanka, Bangladesh, Bhutan, and the Maldives
- **Global System of Trade Preferences** (41 countries + India)

India's CECAs and CEPAs

CECA/CEPA is broader than FTAs, addressing regulatory, trade, and economic aspects comprehensively, with CEPA having the widest scope including services, investment, etc while CECA mainly focuses on tariff and TQR rates negotiation.

- CEPA with **UAE, South Korea, Japan**
- CECA with **Singapore, Malaysia**

Others:

- India-Australia Economic Cooperation and Trade Agreement (ECTA)
- India-Thailand Early Harvest Scheme (EHS)
- India-Mauritius Comprehensive Economic Cooperation and Partnership Agreement (CECPA)

An EHS precedes an FTA/CECA/CEPA, where negotiating countries select products for tariff liberalisation, paving way for broader trade agreements and fostering confidence.

Preferential Trade Agreements (PTAs)

Partners in a PTA grant preferential access to specific products by lowering duties on agreed tariff lines, maintaining a positive list of products eligible for reduced or zero tariffs.

- **Asia Pacific Trade Agreement (APTA):** Bangladesh, China, India, S. Korea, Lao PDR, Sri Lanka, and Mongolia
- **SAARC Preferential Trading Agreement (SAPTA):** Same as SAFTA
- **India-MERCOSUR PTA:** Brazil, Argentina, Uruguay, Paraguay and India
- India's PTA with **Chile, Afghanistan**



- India is among the **top 10 trade partners** of Uzbekistan with bilateral trade **USD 756.60 million**.
- Total **Indian investments** in Uzbekistan amount to **USD 61 million**.
 - Notable Indian investments are in the field of **pharmaceuticals**, amusement parks, automobile components, and **hospitality industry**.
- In **2019**, India and Uzbekistan agreed to conduct a feasibility study for negotiating a **preferential trade agreement (PTA)**.
- The 2nd Prime Minister of India **Lal Bahadur Shastri** died in **Tashkent, Uzbekistan** just hours after signing the **Tashkent Declaration**, which brought a ceasefire in the **Indo-Pakistani War of 1965**.

Read More: [Bilateral Investment Treaties](#)

SASTRA Ramanujan Prize 2024

Recently, the **2024 SASTRA Ramanujan Prize** was awarded to **Alexander Dunn** from the **Georgia Institute of Technology, US**.

Note:

- Dunn has made significant breakthroughs in the study of **modular forms**, **half-integral weight forms**, **metaplectic forms**, and their relationships with prime numbers and integer partitions.
- **About SASTRA Ramanujan Prize:**
 - It was **established in 2005** and given by the **Shanmugha Arts, Science, Technology & Research Academy (SASTRA) University**, Tamil Nadu.
 - It includes a **cash prize of USD 10,000**.
 - It is awarded annually to **mathematicians aged 32 or below** for exceptional contributions, particularly in areas inspired by the work of [Srinivasa Ramanujan](#).
- **About Srinivasa Ramanujan:**
 - He was born on **22nd December 1887** in Tamil Nadu, made pioneering contributions to **number theory**, **elliptic functions**, **partition theory**, and **hypergeometric series**.
 - His talent was recognized by **G.H. Hardy** in 1913, leading to his work at Cambridge.

Read More: [Srinivasa Ramanujan](#)

Vice-President Address to IN-STEP

Recently, The Vice-President of India addressed the participants of the **inaugural International Strategic Engagement Programme (IN-STEP)**, in New Delhi.

- During this gathering, the Vice-President stressed the need for **multilateral cooperation** to address modern threats like **cybercrime**, **terrorism**, and **climate change**.
- He reinforced the philosophy of “**Vasudhaiva Kutumbakam**” (the world is one family) emphasising that these principles are **vital for fostering unity and cooperation to tackle cross-border challenges**.
- **IN-STEP:**
 - This serves as a **valuable platform** for participants to **exchange ideas**, **explore different perspectives**, and **develop strategies** to address the pressing security challenges.
 - This gathering comprised **27 international delegates** from 21 countries and 11 senior Indian military and civil officers.
 - The programme is a collaborative effort between the **National Security Council Secretariat**, the **Ministry of External Affairs**, and the **Ministry of Defence**.

Read More: [18th G20 Summit in New Delhi](#)

India Becomes 3rd Most Powerful Nation in Asia

According to the **Asia Power Index 2024**, India surpassed Japan to **become the third-largest power**, reflecting its increasing geopolitical stature. This achievement is driven by India's dynamic growth, youthful population, and expanding economy, solidifying its position as a leading force in the region.

➤ Key Factors Behind India's Rise:

- **Economic Growth:** India's **strong post-pandemic recovery** has led to a 4.2-point increase in its Economic Capability.
- **Future Potential:** India's Future Resources score increased by 8.2 points, signalling a **potential demographic dividend**.
- **Diplomatic Influence:** India's **non-aligned strategy** has enabled it to **navigate complex global dynamics**, ranking 6th in diplomatic dialogues in 2023, showcasing its active role in multilateral forums.

➤ India's Role in Asia:

- India's **growing influence in Asia** is driven by its **resource base and strategic autonomy**. With **economic growth** and a **rising workforce**, India is well-positioned to expand its role, especially in the Indo-Pacific region.

➤ Asia Power Index:

- It was **launched by the Lowy Institute in 2018**, and assesses power dynamics across **27 Asia-Pacific countries**.
- The **2024 edition is the most comprehensive** yet, including measures of both material capabilities and international influence.

Read More: [India's Economic Growth Outlook](#)

Oxygen Bird Park (Amrit Mahotsav Park)

Recently, the **Ministry of Road Transport & Highways** inaugurated **Oxygen Bird Park (Amrit Mahotsav Park)** in **Nagpur, Maharashtra**.

- It is an **eco-initiative** developed by the **National Highways Authority of India (NHAI)** along the Nagpur-Hyderabad **National Highway-44**.

Note:



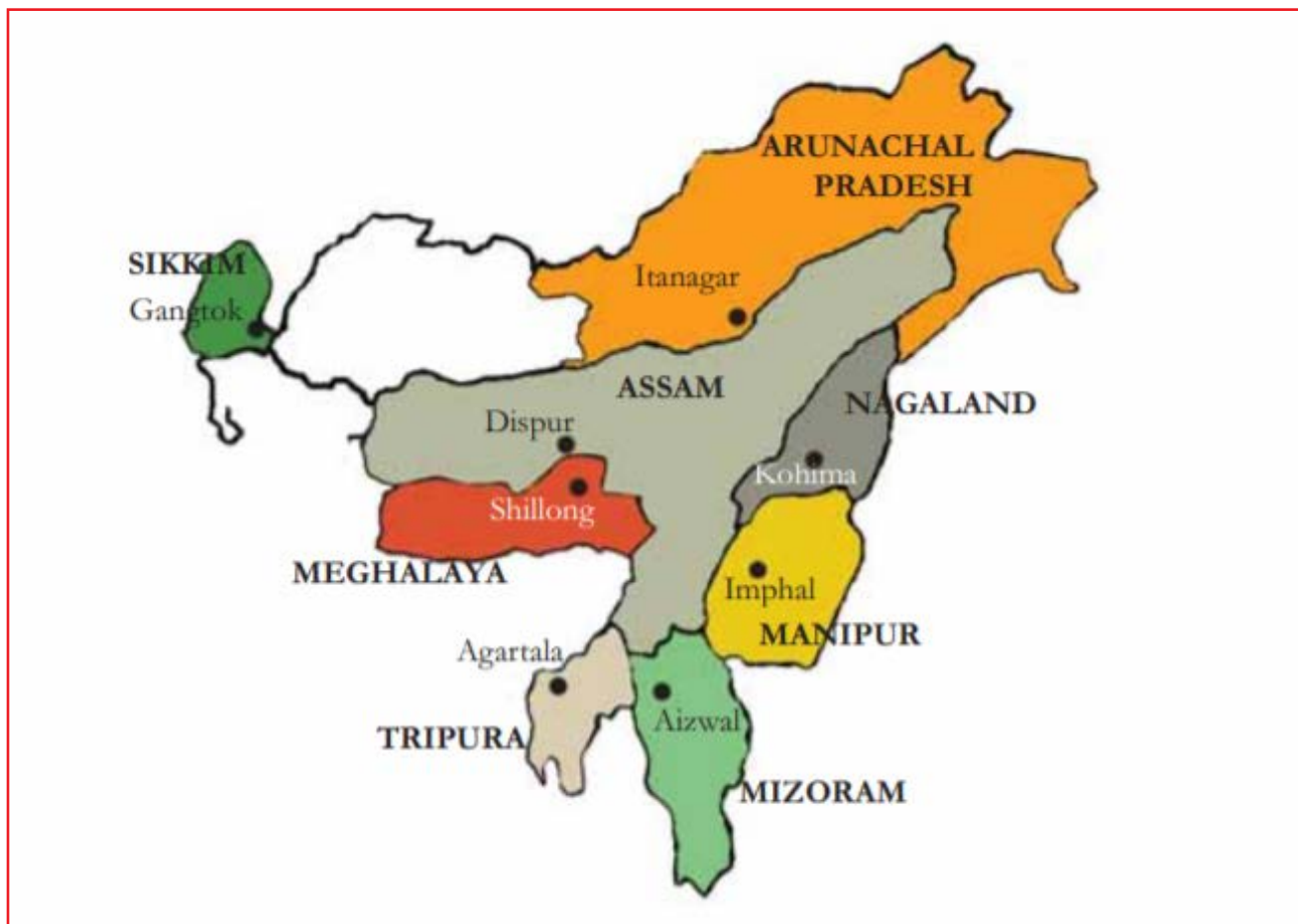
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- It has **fast-growing, oxygen-producing trees** aimed to combat **air pollution** and foster a healthier environment.
- It is designed to mimic natural ecosystems to conserve both **local and migratory bird species**.
- It aims to preserve rare and endangered tree species native to Central India like the **Vulnerable Indian Bael, Gum Karaya** and the Endangered Yellow Flame of the Forest.
- It also features a lotus/lily pad pond, **reed bed (natural water filtration)**, bamboo and palm plantation.
- A part of the park is dedicated to **social forestry**. Social forestry focuses on **growing trees on unused land**, either individually, in groups, or in strips.

Read More: [Rethinking Forest Conservation Efforts](#)

Bharatiya Kala Mahotsav

On 28th September 2024, the **President** launched the first edition of Bharatiya Kala Mahotsav at Rashtrapati Nilayam in **Secunderabad (Hyderabad)**.



- It is an eight-day festival, organised by the Rashtrapati Nilayam in collaboration with the **Ministry of Development of the North-east Region (DoNER) and the Ministry of Culture**.
- It is to celebrate the vibrant cultural heritage and showcase the **art, crafts, and culinary diversity** of the **North-Eastern states**.
- It also serves as a platform for **cultural exchange** and aims to connect the North-East with the **southern regions** of the nation.

Note:



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- **Rashtrapati Nilayam:** It is one of India's three presidential retreats (one is in Delhi and the other is in Shimla) and the only one in Southern India.
 - It was constructed in **1860 with a total land area of 90 acres** and was taken over by the **Nizam of Hyderabad** after independence.

Read more: [Destination North East Festival, PM-DevINE and NESIDS Schemes](#)

Tsangyang Gyatso Peak

Recently, a peak in **Arunachal Pradesh** was named 'Tsangyang Gyatso Peak' after the **6th Dalai Lama, Tsangyang Gyatso** on which China objected.

- **China condemned** the naming of the peak calling it an **illegal operation** in "Chinese territory".
 - China claims the entire Arunachal Pradesh as "**South Tibet**". Beijing calls the region "**Zangnan**" in the Chinese language.

- **Tsangyang Gyatso** was born in **Tawang** and lived during the **17th-18th century CE**.
- India described the naming as a **tribute** to Tsangyang Gyatso's "**timeless wisdom**" and his contributions to the **Monpa community** (an ethnic group native to the Tawang region).
- A team from **National Institute of Mountaineering and Adventure Sports (NIMAS)** scaled the **6,383-metre peak** facing steep ice walls, dangerous **crevasses**, and a two-kilometre-long glacier.
 - The peak is located in the **Gorichen range** of Arunachal Pradesh Himalayas.
 - A crevasse is a **deep, wedge-shaped opening** in a glacier. Crevasses usually form in the top 50 metres of a glacier.
 - NIMAS comes under the **Ministry of Defence**.

Read More: [India Rejects China's Claim Over Arunachal Pradesh](#)



Note: