



INSIGHTSIAS

SIMPLIFYING IAS EXAM PREPARATION

SURYA NAMASKAR

Surya Namaskar, also known as Sun Salutation, is a yogic practice that involves a series of 12 postures or asanas. The practice is said to pay respect to the sun.



2 JAN - 6 JAN 2024

WEEKLY CURRENT AFFAIRS

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GENERAL STUDIES – 1

Topics: [Salient features of Indian Society, Diversity of India.](#)

1. ROLE OF SLUMS IN INDIAN SOCIETY

Context:

The [article](#) explores the evolving narratives and definitions of slums in the context of Indian parliamentary debates.

Evolution of the discourse on [slums](#):

Era	Conceptualisation	Steps
First era (1950s-1960s)	Slums are viewed as a result of partition and population influx into cramped areas. Considered an epidemic to be eradicated. Connected to spatial constraints and health issues, ignoring socio-economic factors.	The introduction of the Slum Areas Act of 1956 made government intervention possible. Slums became a legal entity .
Second era (Early 1970s - Mid-1980s)	Shifted to viewing slums as something to be developed . The narrative included providing basic amenities instead of destruction.	Town planning emerged as a governance tool , pushing slums to peripheries.
Third era (Mid-1980s - Late 1990s)	Cities and slums are seen as assets for economic growth . Economic reasoning replaced social concerns.	Broader housing policies were introduced, addressing land, finance, and infrastructure. The National Slum Development Programme was launched in 1996.
Fourth era (2000s-2014)	Understanding based on data from the 2001 Census. The causes of slum formation are linked to urban planning, population growth, urbanization, land pressure, and price rise. Upliftment associated with property rights .	Urban housing deficit became the focus of housing policies. Definitions broadened with the Census, leading to targeted schemes .
Overall Transformation	Evolution from viewing slums as a socio-political issue to a technical, economic object . Increasing reliance on technological solutions for urban problems.	Continual transformation of slum definitions, adapting to data-driven and technocratic approaches .

What are Slums?

Slums have been defined as those areas **where buildings are unfit for human habitation**, or are by dilapidation, overcrowding, design of buildings, narrowness of streets, lack of ventilation, light or sanitary facilities or any combination of these factors, are **detrimental to safety, health or moral (Slum Area Improvement and Clearance Act 1956)**.

Status:

An all-India average where the cities with 10 lakh and above population have **over 29% population living in slums**. The percentage of slum population in the four mega cities is – Bombay (over 34%, Calcutta 32%, Madras 32% and Delhi 31%). As much as **65% of Indian cities** have adjoining slums where people live in small houses adjacent to each other.

The role played by Slums in Indian cities

- **Economically:** Slums are often vibrant centres of economic activity as slum workers provide **essential services to the city**.
 - **Informal economy:** Slums are home to a large number of people who work in the **informal sector**, such as rickshaw drivers, street vendors, and construction workers.
 - **Contribution to Urban Workforce:** Many slum residents form an integral part of the urban workforce, providing essential services in **construction, domestic work, transportation**, and other sectors. Their contributions are critical to the functioning of the city.
- **Socially:** Slums are also home to a diverse range of people. This **diversity** can lead to a **vibrant community life**, with people from different cultures coming together to support each other.
 - **Social Networks and Solidarity:** These communities develop strong social networks and a sense of solidarity. Residents support each other through **mutual assistance, shared resources, and collective problem-solving**.
 - These **informal support systems** are vital in the absence of formal social services, creating a sense of belong-

ing and **resilience** within the community.

- **Culturally:** Slums are characterized by their diverse population with people from different regions, religions, and cultural backgrounds. This diversity fosters cultural exchange, tolerance, and understanding among residents. Slums can be **dynamic spaces** where diverse traditions, languages, and cuisines coexist, enriching the social fabric of the city.

Common problems faced by Slum dwellers



Government Initiatives for Slum Dwellers/Urban Poor:

- [Pradhan Mantri Garib Kalyan Yojana](#)
- [Atmanirbhar Bharat Abhiyan](#) (self-reliant India).
- [PM- Awas Yojana- Urban](#).

Recommendations for Improving Conditions of Slum Dwellers in India

- Efforts should focus on **addressing the underlying issues**, such as **poverty, housing, and infrastructure**, while also recognizing the strengths and resilience of slum communities.
- By implementing **inclusive urban policies** and improving living conditions, it is possible to harness the positive aspects of slums while ensuring better opportunities and quality of life for all residents.
 - For e.g. **Dharavi Redevelopment Project** is the makeover of Mumbai’s slum cluster, Dharavi. It entails resettling 68,000 people, including slum dwellers and those with commercial establishments.
- **Local authorities** need to be empowered **with financial and human resources** to deliver services and infrastructure to the slum dwellers in India.
- **State governments** have to develop strategies to **prevent the formation of new slums**.
 - These should include access to **affordable land, reasonably priced materials**, employment opportunities, and basic infrastructure and social services.
- **Public investments** must focus on providing **access to basic services and infrastructure**. The cities need to invest in housing, water, sanitation, energy, and urban services, such as garbage disposal.
 - These services and infrastructure must **reach the poor living** in informal settlements.
- **Building codes and regulations** should be realistic and enforceable and reflect the local community’s lifestyle and needs.

Conclusion

By addressing the challenges faced by slum dwellers, the **Govt’s can help to improve the lives of millions of people and make India a more inclusive society**. Human well-being

is broadly considered to include the consumption of goods and services and the **access to basic necessities for a productive and socially meaningful** life to all sections of the population, especially the deprived slum dwellers in India.

Insta Links:

- [Government Initiatives to manage Slums](#)

Mains Links:

Q. Why slums are considered as ‘problems’ in urban regions?

Topics: Distribution of key natural resources across the world (including South Asia and the Indian subcontinent)

2. IRON ORE AND STEEL SECTOR IN INDIA

Context:

The [Competition Commission of India](#) (CCI) conducted a **study on iron ore pricing and exports**, highlighting concerns about varied pricing and recommending **discouraging iron ore exports** in the country.

What did CCI say?

Aspect	Details
Concerns Raised by CCI	The recent increase in iron ore exports (low value compared to finished products like steel)
	Allocation of captive mines to certain players creates entry barriers for others and is against competition
	Differential pricing of iron ore for different end-users raises competition concerns.
Key Recommendations by CCI	CCI discourages iron ore exports due to its non-renewable nature and importance to various industries.
	Prioritize export of higher value-added products like finished steel to promote self-reliant India.
	Upgrade iron ore quality using cutting-edge technologies to enhance grade.

What is Iron Ore?

Iron ore refers to **rocks and minerals** from which **metallic iron** can be extracted economically. It typically contains **iron oxides**, and the primary types include **hematite, magnetite, and taconite**.

Status:

India is **self-sufficient** in iron ore production. It contributes **7%** to global production. India ranks as the **4th largest producer** globally. India is the **2nd largest producer of steel** in

the world after China

Distribution of Iron Ore:

- **India** is endowed with abundant resources of iron ore, with the **largest reserve of iron ore in Asia**.
- The iron ore mines occur in close proximity to the **coal fields in the northeastern plateau** region which adds to their advantage.
- **States:**
 - About 95% of total the reserves of iron ore are located in the States of **Odisha, Jharkhand, Chhattisgarh, Karnataka, Goa, Telangana, Andhra Pradesh and Tamil Nadu**.
- **Mines:**
 - In **Odisha**, iron ore occurs in a series of hill ranges in **Sundergarh, Mayurbhanj and Jhar**. The important mines here include **Badampahar (Mayurbhaji), Kiruburu (Kendujhar) and Bonai (Sundergarh)**.
 - **Jharkhand** has some of the **oldest iron ore mines** and most of the iron and steel plants are located around them.
 - Important mines include **Noamundi and Gua** in **Poorbi and Pashchimi Singhbhum districts**, further extending to **Durg, Dantewara and Bailadila**.
- **Other regions:**
 - **Karnataka - Sandur-Hospet area of Ballari district, Baba Budan hills** and Kudremukh in Chikkamagaluru district and parts of Shivamogga, Chitradurg and Tumakuru districts.
 - **Chandrapur, Bhandara and Ratnagiri districts of Maharashtra;** Karimnagar and Warangal districts of **Telangana;** Kurnool, Cudapah and Anantapur districts of **Andhra Pradesh;** Salem and Nilgiris districts of **Tamil Nadu**
 - **Goa** has also emerged as an important producer of iron ore.

Significance of iron ore:

- **International trade:**
 - The two main types of **iron ore** found in India are **haematite and magnetite**. It has great demand in the international market due to its **superior quality**.
- **Industrial use and applications:**
 - Iron ore is the source of primary iron for the **world's iron and steel industries**.
 - It is therefore essential for the production of steel, which in turn is essential to maintain a strong industrial base. **Almost all (98%) iron ore is used in steelmaking**.
- **Larger significance:**
 - Most part of the **economy in the above regions**, especially the four states of Jharkhand, West Bengal, Odisha and Chhattisgarh **revolves around these raw materials** (iron and manganese).

Steel sector in India:

The state of the steel sector in India is key to its economy, accounting for **2% of the GDP** in FY 21-22. The major steel-producing states include Odisha, Jharkhand, Chhattisgarh, Karnataka, Maharashtra, Gujarat, and West Bengal, with **Odisha leading in production**.

Steel Sector in India

Steel manufacturing produces more CO2 than any other heavy industry, comprising around **8% of total global emissions**. India is currently the **world's 2nd largest producer of crude steel**

- **Important steel-producing centers** are Bhilai (Chhattisgarh), Durgapur (West Bengal), Burnpur (West Bengal), Jamshedpur (Jharkhand), Rourkela (Odisha), Bokaro (Jharkhand).
- **Consumption:** India is the 2nd largest consumer of finished steel in 2021 after China



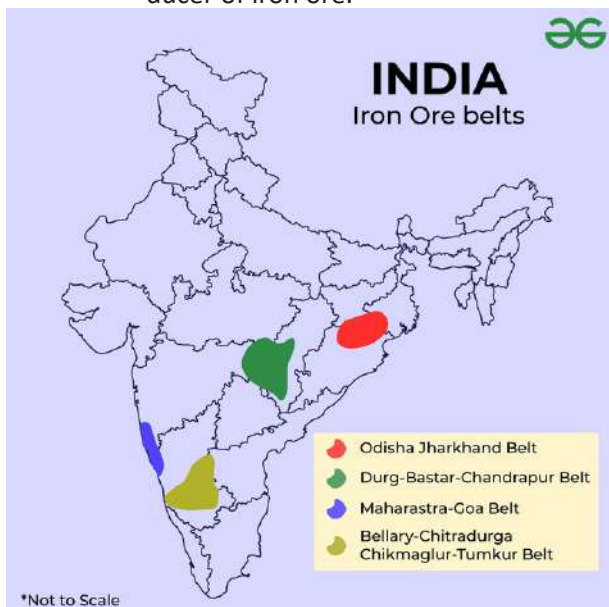
Evolution of Steel Industry in India



Top 20 countries by crude steel production



What is Green Steel?
Green Steel is the manufacturing of steel using renewable or low-carbon energy sources such as hydrogen, coal gasification, or electricity instead of the traditional carbon-intensive manufacturing route of coal-fired plants.



Challenges Faced by the Steel Sector:

Challenges	Details
Barriers to Setting up Modern Steel Plants:	Significant investment is required for modern plants; Reliance on debt financing and high domestic financing costs impact competitiveness

Cyclical Demand and Monsoon Challenges:	Demand is influenced by factors like monsoons; Low-demand periods lead to financial strain and plant closures.
Low Per Capita Consumption	Low per capita steel consumption compared to other developed countries.
Low Investment in R&D	Dependence on international research increases costs, and outdated technologies hamper competitiveness
Environmental Concerns:	The steel industry is a major carbon dioxide producer, and many of the plants don't adhere to green and EIA guidelines
Impact of EU's CBAM:	EU's Carbon Border Adjustment Mechanism (CBAM) from January 1, 2026. Adverse impact on India's exports of metals like iron, steel, and aluminium products to the EU due to additional environmental scrutiny.

National Metallurgist Award	A prestigious award recognizing outstanding contributions of metallurgists in the iron and steel sector , presented by the Ministry of Steel.
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Conclusion:

Engaging with **policymakers and international bodies** is crucial to advocate for **fair CBAM** policies. Collaborative efforts with other industries and countries can address unique challenges in the **Indian steel sector**.

Insta links:
[Steel Sector in India](#)

Mains Links

Q1. Account for the present location of iron and steel industries away from the source of raw material, by giving examples. (UPSC 2020)

Q2. Account for the change in the spatial pattern of the Iron and Steel industry in the world. (UPSC 2014)

Government Initiatives for the Steel Sector in India:

Initiative	Description
Inclusion of Specialty Steel in the PLI Scheme	The government allocated Rs 6322 crore for a 5-year period to promote speciality steel manufacturing , attract investments, and foster technological advancements.
Green Steel Making	Ministry of Steel constituted 13 Task Forces to discuss and recommend decarbonization strategies , and the sector is part of the National Green Mission for green hydrogen production .
Purvodaya initiative	Facilitates the establishment of green-field steel clusters in the Eastern states of Chhattisgarh, Jharkhand, West Bengal, Odisha, and Andhra Pradesh.
Steel Scrap Recycling Policy	Notified in 2019, facilitating the establishment of metal scrapping centres for scientific processing and recycling of ferrous scrap, including end-of-life vehicles.
National Steel Policy 2017	Formulated to encourage long-term growth for the Indian steel industry by 2030-31 , aligning with infrastructure development, the 'Make-in-India' initiative, and other government schemes.
Steel and Steel Products (Quality Control) Order	Introduced to ban sub-standard/defective steel products , ensuring availability of quality steel conforming to relevant BIS standards.
Safety in the Iron & Steel Sector	Formulated 25 common minimum Safety Guidelines in consultation with stakeholders, and academia, and in compliance with global standards and the ILO Code of Practice.

Prelims Links

Q. Which of the following are some important pollutants released by the steel industry in India? (UPSC 2014)

1. Oxides of sulphur
2. Oxides of nitrogen
3. Carbon monoxide
4. Carbon dioxide

Select the correct answer using the code given below:

- (a) 1, 3 and 4 only
- (b) 2 and 3 only
- (c) 1 and 4 only
- (d) 1, 2, 3 and 4

Ans: D

GENERAL STUDIES – 2

Topics: Functions and responsibilities of the Union and the States, issues and challenges pertaining to the federal structure, devolution of powers and finances up to local levels and challenges therein.

1. FISCAL FEDERALISM: DISTRIBUTION OF FUNDS FROM CENTRE TO STATES

Context:

The recent disagreement between the **central and Tamil Nadu governments** over flood relief following heavy rainfall sparked a debate on the criteria for awarding central grants to states.

Also, Uttar Pradesh (UP) has received the highest allocation of funds under the **‘Scheme for Special Assistance to States for Capital Expenditure/Investment’**, while some other states such as Andhra Pradesh, Kerala, Manipur, and Punjab have **received no allocation in 2023-24**

What is Fiscal Federalism?

Fiscal federalism deals with the **division of financial powers as well as the functions** between multiple levels of the government in a country. It has within its ambit the **imposition of taxes as well as the division of different taxes** between the Centre and the constituent units.

Tools for Fiscal Federalism:

Tools	Description
Constitutional Assignment of Powers	The Constitution of India delineates taxation and expenditure powers for different government levels , ensuring clear demarcation between the central and state governments.
Finance Commission	A constitutional body (Art 280) is responsible for recommending tax revenue distribution, suggesting ways to enhance state financial resources, and promoting fiscal discipline.
Goods and Services Tax (GST)	A comprehensive indirect tax replacing multiple central and state taxes on goods and services, administered by a GST Council with representatives from the central and state governments.
Grants-in-Aid System	Involves the discretionary transfer of funds (Art 275) from the central government to state governments for specific purposes or schemes, addressing regional disparities and developmental gaps.

Issues in the Fiscal Federalism in India:

Issues	Details
Central Assistance for Disasters	The Tamil Nadu government requested ₹21,692 crore in relief funds from the Union government due to the disaster caused by Cyclone Michaung . The central government allocated only ₹450 crore to the State Disaster Response Fund (SDRF) and ₹500 crore for a Chennai flood mitigation project.

Scheme for Special Assistance to States for Capital Expenditure/Investment	UP and Bihar lead in meeting criteria for Capital Expenditure, securing the highest allocation in the last four years. However, Uttarakhand, Haryana, Kerala, and Punjab receive 1-2% of the total released amount. Andhra Pradesh, Kerala, Manipur, and Punjab have not received any allocation in 2023-24, as they didn't meet the criteria.
	The Scheme for Special Assistance to States for Capital Expenditure , initiated in FY 2020-21 during the Covid-19 pandemic, is extended as the 'Scheme for Special Assistance to States for Capital Investment 2023-24' with an allocation of over Rs 1lakh crore.
FRBM Act	Fiscal Responsibility and Budget Management (FRBM) Act, 2003 is applicable to all states. However, many of the states have missed its targets.
Issues w.r.t GST	Financial Autonomy of the State: The GST has taken away much of the autonomy available to states, making the country's indirect tax regime unitary in nature.
	GST Compensation: The Centre missed the compensation amount, becoming a major point of contention.
	GST Council: The GST Council's voting structure gives a virtual veto to the central government, sidelining the principle of consensus.

Role of the 15th Finance Commission in fostering fiscal federalism:

- Increased tax devolution to states from 32% to 41%:** This enhances states' fiscal capacity and autonomy on spending, allocating more resources to states for economic development and governance roles. States' fiscal buffer has widened.
- Emphasis on sector-specific purpose-based grants:** The commission has provisioned **Rs 4.36 lakh crore** performance-based grants to states in areas like **health, education, rural connectivity, and water conservation** that address development gaps.
- Boosts local government finance:** The commission mandates a **4.31% share** of the divisible pool for local governments. **Over Rs 2 lakh crore**, grants to urban and rural local bodies strengthen decentralization.

Shortcomings:

- Centre retains larger revenue-raising powers** and control over citizens' vital personal finances & expenditures through GST, corporate taxes etc. constraining states' capacity. RBI's monetary powers also lie with the central government. This **severely skews fiscal imbalance against states.**
- Rigid fiscal consolidation goals** overlook economic constraints: **Mandating 4% fiscal deficit limits** for states could curb their capital spending abilities and reduce fiscal legroom, posing risks amid the economic revival phase.
- Limited sectoral grants in a few specialized domains:** The absence of performance incentives for states in many areas like environmental management, digital governance, and social security benefits leaves critical sectors underfunded hampering states' capacity to uplift them.

Key principles that guided 15th Finance Commission recommendations:

- Equity:** Balanced distribution of resources between the Centre and states based on sound criteria like demographics, development levels etc. to bridge inequality.
- Efficiency:** Results-based incentives were introduced for the first time across sectors like **agriculture, education, and health to boost effective governance.**
- Conditionality:** Certain sector grants are tied to state-level reforms to enable the realization of national priorities like power sector viability and ease of doing business.
- Inclusiveness: Enhanced** funds allocation to deprived groups and backward regions to ensure even development. Also empowered local governments by allotting them a share of central taxes.
- Responsiveness:** Sector-specific grants responsive to emerging priorities like improving air quality, water conservation and metro connectivity made growth more sustainable.
- Cooperative Federalism:** Constant consultation between the Centre and states throughout the Commission's five-year award period to better reconcile national and sub-national priorities.

Suggested measures for improving centre-state fiscal relations:

Suggestions	Proposed Solutions
Equity-Oriented Intergovernmental Transfers	Intergovernmental transfers, like funds from the central government to states, should be designed to promote equity.

Horizontal and Vertical Fiscal Imbalances	Addressing both horizontal imbalances (disparities among states) and vertical imbalances (between central and state governments) is crucial. The devolution formula should be designed to account for both sets of imbalances to ensure that resources are allocated fairly.
Constitutional Reforms	Revisit Articles 246 and the Seventh Schedule to redefine the division of powers and responsibilities between the central and state governments. This can help clarify which functions should be carried out at each level, reducing confusion and enhancing efficiency.
Empowering Local Governments	Strengthen the third tier of government by providing them with adequate resources, functions, and autonomy.
Fiscal Responsibility and Budget Management (FRBM) Act	Align the FRBM Act provisions for both central and state governments to maintain fiscal discipline while accommodating their unique fiscal situations. Promote the implementation of FRBM Acts at the state level, as suggested by the Fourteenth Finance Commission.
Devolving Tax Powers	Provide states with more flexibility and control over taxation, enabling them to generate revenue according to their local economic conditions and priorities.
Cooperative Federalism	Foster a spirit of cooperative federalism where the central and state governments collaborate to design and implement policies that benefit the nation as a whole.
Regularization of Appointments of FC	Implement the recommendations of the Punchhi Commission, which suggested that the Finance Commission's appointment should be regularized to ensure its autonomy and periodic review.
Clear Guidelines for Disaster Relief	There is a need for clear guidelines for disaster relief and debates about the exclusion of long-term restoration works from SDRF/NDRF funding.
Scheme Funds for Disaster Relief	A parliamentary committee recommended in 2021 that states should be allowed to use more than the allocated 25% flexi-fund of centrally sponsored schemes for post-disaster restoration.

Conclusion

A careful re-evaluation of fiscal arrangements, prioritization of central expenditure, and discussions on a new grant framework are crucial for fostering effective fiscal federalism in India. The government has given the **Terms of Reference**

of the [16th Finance Commission](#) in order to better prioritise government finances.

Insta Links:

- [Rethink the dynamics of India's fiscal federalism](#)
- [The poor state of India's fiscal federalism](#)

Prelims Links:

Q. Which of the following is/are included in the capital budget of the Government of India? (UPSC 2016)

1. Expenditure on acquisition of assets like roads, buildings, machinery, etc.
2. Loans received from foreign governments
3. Loans and advances granted to the States and Union Territories

Select the correct answer using the code given below:

- 1 only
- 2 and 3 only
- 1 and 3 only
- 1, 2 and 3

Ans: D

Topics: Government policies and interventions for development in various sectors and issues arising out of their design and implementation.

2. PERFORMANCE OF MAHATMA GANDHI NATIONAL RURAL EMPLOYMENT GUARANTEE ACT (MGNREGA)

Context:

The Centre has **mandated the payment of all wages under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** through an Aadhaar-based payment system (ABPS), starting from Jan 1st, 2024.

- **Exceptions:** The government may consider **exemptions for Gram Panchayats** facing technical or Aadhaar-related issues.
- **Aim of the move:** The move aims to **curb corruption, ensure prompt payments**, and reduce rejections, affecting more than 1100 government schemes and programs.

What is MGNREGA?

The **Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA)** is a **rural employment program** in India that aims to provide **guaranteed wage employment to rural households**. The scheme has been implemented in India since **2005** and has been credited with providing a **safety net for rural households**, particularly during times of **economic hardship**.



What is ABPS?

Aadhaar-based payment system (ABPS) (it has been in use since 2017). ABPS utilizes the **worker's 12-digit Aadhaar number** as their financial address, requiring linkage to job cards, bank accounts, and the **National Payments Corporation of India (NCPI) database**. Some notable programs where ABPS is mandatory include Pradhan Mantri Ujjwala Yojana, Pradhan Mantri Awas Yojna, Pradhan Mantri Fasal Bima Yojana, and Atal Pension Yojana.

The situation of stagnant growth in Rural India:

Stagnant rural wage growth has posed a challenge to the recovery because it has been the result of unemployment among the rural population resulting in significant demand reduction in the rural area.

Fig- Rural wage growth and economic recovery

Performance of MGNREGA IN ALLEVIATING RURAL POVERTY

- **Providing a safety net for rural households:** providing 100 days of guaranteed work, has ensured a **minimum level of income** for rural households, particularly during periods of hardship.
 - Ex- COVID- wages earned under the Act helped compensate somewhere between **20% and 80%** of the income loss incurred because of the lockdown- study by Ajim Premji Institute.
- **Improving rural livelihoods:** The program has helped provide a source of **additional income**. This has helped to increase the overall standard of living in rural areas.
- **Creating employment opportunities:** MGNREGA has helped reduce **unemployment** and **underem-**

ployment in rural areas. **113.7 million households were employed under MGNREGS, while a total of 2.89 billion person-days of employment were generated in 2022-** Ministry of Rural Development.

- **Development of agriculture-** Activities such as the construction of **bunds, terracing, and the improvement of irrigation systems** have helped increase agricultural income.
- **Improving rural infrastructure:** MGNREGA has been used to finance a wide range of public works activities, including the creation of **rural roads, water bodies, and rural housing.**
- **Supporting rural health systems:** MGNREGA has led to the construction of health facilities and sanitation systems in rural areas. Ex- construction of toilets.
- **Providing food security:** MGNREGA was used for the construction of community kitchens and food storage facilities in rural areas. This helped to ensure that rural households had access to food during the pandemic.
- **Reducing migration:** MGNREGA has helped to reduce migration from rural to urban areas by providing employment opportunities in rural areas. This has helped to keep families together.

According to the **National Council of Applied Economic Research (NCAER)**, MGNREGA has played a vital role in reducing poverty **among the poor as well as the socially weaker sections** such as Dalits, tribals and marginal farmers.

Issues with MGNREGA:

1. **Limited Coverage (not in the urban areas)**
2. **Lack of adequate funding, bureaucratic delays, corruption**
3. **Low Wages**
4. **Lack of Skilled Jobs**
5. **Limited Impact on** Poverty Reduction Workers not receiving timely payment and the quality of work is subpar.
6. Despite multiple deadline extensions, over **34% of registered job card** holders and over **12% of active workers** remain ineligible for ABPS as of December 27 (2023).
7. The push for ABPS eligibility has led to the deletion of over **7 crore job cards** in the past 21 months, causing concerns about denial of the **right to work.**
8. Activists call for the **revocation of mandatory ABPS implementation and the reinstatement** of deleted workers with due compensation. The government argues that ABPS will enhance efficiency and reduce payment rejections.

Measures needed to improve the performance of MGNREGA

- **Increased allocation of funds:** To fully realize the potential of MGNREGA, it is important to allocate suf-

ficient funds to the scheme. In the **2023-24 budget, Rs.60,000** was allocated towards MGNREGA, which after payment of existing liabilities can provide **only 17 days** of work-study by PAEG.

- **Better targeting of beneficiaries:** The current targeting mechanism for MGNREGA beneficiaries needs to be improved to ensure that the benefits of the scheme reach the most vulnerable and marginalized groups in society, including **women, Dalits, and Adivasis.**
- **Improved monitoring and evaluation:** through **Social audits** to enforce greater accountability.
- **Increase MGNREGA wage rates-** to at least the state minimum wage or **₹375 per day** as recommended by the **Anoop Satpathy Committee** and index with CPIR.
- **Strengthening the role of gram panchayats:** they should be provided with adequate resources (advanced funds), powers, and responsibilities to sanction works, provide work on demand, and authorise wage payments to ensure there are no delays in payments.
- **Increased participation of women:** The participation of women in MGNREGA needs to be increased to ensure that the scheme provides equal opportunities for both men and women and that women are able to access the benefits of the scheme.
- **Linking with other development programs:** to ensure that the scheme contributes to the overall development of rural areas. Ex-**National Bamboo Mission, Rashtriya Krishi Vikas Yojana.**
- **Awareness generation-** displaying a '**Know Your Rights (KYR)**' concerning MGNREGA in public places, usage of **ombudsman app** for grievance redressal.

Conclusion

MGNREGA was regarded as a **stellar example of rural development by the World Development Report of 2014.** While the MNREGA has noble goals and has provided some employment opportunities to rural workers, it has faced several limitations that have prevented it from achieving its full potential as a poverty reduction program.

Insta Links:

- [MGNREGS social audit](#)
- [MGNREGS](#)

[Topics: Bilateral, regional and global groupings and agreements involving India and/or affecting India's interests.](#)

3. GLOBAL NUCLEAR ORDER (GNO) IS UNDER STRAIN

Context: The global nuclear order (GNO), established **during the Cold War**, faces significant challenges.

What is the global nuclear order (GNO)?

The global nuclear order (GNO) refers to the established framework, rules, and agreements governing the use and proliferation of nuclear weapons on a global scale.

E.g., the Nuclear Non-Proliferation Treaty (NPT) aims to prevent the spread of nuclear weapons and promote disarmament.

Key Components of the Global Nuclear Order:

Key Components	Description
Non-Proliferation	Efforts to <u>prevent the spread of nuclear weapons</u> to additional states.
Disarmament	Initiatives aimed at <u>reducing and ultimately eliminating nuclear arsenals</u> globally.
Nuclear Material Security	Measures to <u>safeguard nuclear materials, facilities, and technologies from theft, sabotage</u> , or unauthorized access.
Peaceful Use of Nuclear Energy	Promotion of nuclear technology for peaceful purposes such as <u>electricity generation, medicine, agriculture, and industry</u> .
International Agreements and Treaties	Frameworks like the <u>Nuclear Non-Proliferation Treaty (NPT)</u> , <u>Comprehensive Nuclear-Test-Ban Treaty (CTBT)</u> , and others establish norms, regulations, and obligations related to nuclear activities.
International Organizations and Agencies	Bodies like the <u>International Atomic Energy Agency (IAEA)</u> oversee nuclear activities, and inspections, and promote nuclear safety and security worldwide.

KEY TREATIES FOR NUCLEAR DISARMAMENT, ARMS CONTROL AND NON-PROLIFERATION

Year	Treaty Name	Description
1963	Partial Test Ban Treaty (PTBT):	Prohibits testing of Nuclear weapons which can cause radioactive fallout outside the State's territory
1970	Treaty on Non-proliferation of Nuclear Weapons (NPT):	Only binding treaty for nuclear disarmament of Nuclear weapon states.
1996	Comprehensive Nuclear Test Ban Treaty (CTBT):	International treaty that bans all nuclear explosions in all environments. (Not yet entered into force)

Global Nuclear Order (GNO) Significance:

- Preventing Proliferation:** Preventing widespread possession.
- Ensuring Stability:** Arms control negotiations achieved strategic parity, fostering stability in the arms race and crisis management since 1945

Current status of GNO:

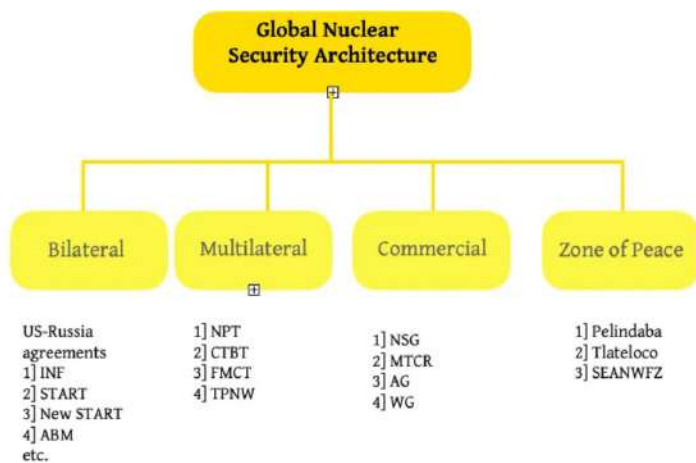
As per the Stockholm International Peace Research Institute (SIPRI)

- Nine nuclear-armed states**, including prominent players like the United States, Russia, and China, are actively engaged in the modernization and expansion of their nuclear arsenals.
- Total global inventory:** It is approximately 12,512 warheads, with a significant portion, around 9,576, held in military stockpiles for potential use.
- Dominance in nuclear capabilities:** It remains concentrated in Russia and the United States, which collectively possess nearly 90% of all nuclear weapons

Issues/concerns with Current GNO:

Concerns	Description
Shift from Bipolarity to Multipolarity	The <u>rise of China</u> introduces a new dynamic in nuclear relations, shifting from the previous bipolar order.
Changes in the U.S.-Russia Treaties	Withdrawals <u>from key treaties like ABM and INF</u> , along with uncertainties surrounding the <u>New START Treaty</u> .
New Nuclear Peer Rivals	The U.S. facing two nuclear peer rivals (<u>Russia and China</u>), with added uncertainties <u>arising from the Ukraine war</u> .
Shifts in Technology	Evolving nuclear technology and instances of biased dealings, such as the <u>AUKUS deal</u> with Australia, raise concerns in the NPT community.

Out of these, three important treaties for GNO are:



Changing Perspective	Shifts in the nuclear perspectives of nations like South Korea and Japan, with considerations for national nuclear deterrents.
Arms Control	Challenges in implementing existing agreements like NPT and lack of progress in disarmament efforts.
Modernization and Technology	Ongoing modernization of nuclear arsenals , including advanced and potentially destabilizing technologies.
Emerging Threats and Actors	Risks associated with non-state actors or rogue states acquiring nuclear materials or technology.

India’s Position on the Global Nuclear Order:

- Nuclear Disarmament:** India supports complete disarmament within a specified timeframe
- The doctrine of ‘No First Use’ (NFU) of nuclear weapons:** The doctrine was formally adopted in January 2003, and says that nuclear weapons will only be used in retaliation against a nuclear attack on Indian territory or on Indian forces anywhere
 - Last year, the Indian Defence Minister said that the **‘no first use nuclear policy’ of India** may change in the future.
- Advocate for Global Disarmament:** India advocates for global nuclear disarmament while seeking recognition as a responsible nuclear power.
- Non-Signatory to NPT and CTBT:** India distinguishes itself by not being a signatory to the Nuclear Non-Proliferation Treaty (NPT) and CTBT, as it deems them discriminatory
 - India’s **non-signatory status** to the NPT creates complexities in its relationship with the global nuclear order, having developed its nuclear program independently.
- Nuclear Arsenal Expansion:** India’s ongoing expansion and modernization of its nuclear arsenal raise concerns about regional stability, especially given tensions with **Pakistan and the strategic rivalry with China.**
- Relations with Pakistan:** The nuclear dynamics between India and Pakistan pose challenges
- China Factor:** India’s nuclear policy is influenced by its **relations with China**, and as China modernizes its nuclear capabilities, India might feel compelled to bolster its arsenal

Way forward:

Creating a **just, safe, and improved Global Nuclear Order** requires a comprehensive approach integrating **diplomacy, technology, governance, and international cooperation.**

Key steps include:

- Encouraging disarmament** through significant and verifiable reductions in nuclear arsenals

- Strengthening **non-proliferation efforts**
- Fostering **inclusive dialogue** among all stakeholders
- Monitoring** emerging technologies for potential risks
- Supporting new treaties like the **Treaty on the Prohibition of Nuclear Weapons (TPNW)** while engaging nuclear-armed states in discussions for a nuclear-free world.
- India:** India must focus on **maintaining stability in its region**, engaging in dialogue with Pakistan and China, and ensuring the safe and responsible management of its nuclear arsenal.

Conclusion:

The **legitimacy of any global nuclear order** hinges on two vital conditions: achieving **convergence among major powers** and effectively portraying the outcomes as a global public good for the rest of the world. These conditions underscore **the necessity for collaboration, transparency, and shared responsibility** in shaping a stable and just global nuclear order.

Insta links:

- [Nuclear Non-proliferation Treaty](#)
- [Evolution of India’s nuclear policy](#)

Mains Links:

Prelims Links:

Q. Consider the following countries: (UPSC 2015)

- China
- France
- India
- Israel
- Pakistan

Which among the above are Nuclear Weapons States as recognized by the Treaty on the Non-Proliferation of Nuclear Weapons, commonly known as the Nuclear Non-Proliferation Treaty (NPT)?

- 1 and 2 only
- 1, 3, 4 and 5 only
- 2, 4 and 5 only
- 1, 2, 3, 4 and 5

Ans: (a)

CONTENT FOR MAINS ENRICHMENT

1. IAS OFFICER SUSHANT GAURAV

Context: IAS officer Sushant Gaurav, the Deputy Commissioner of **Gumla in Jharkhand**, has been credited for transforming the poverty-stricken district into the **‘Ragi Capital of India.’**

Gaurav's innovative approach **shifted locals from water-intensive paddy cultivation to a more sustainable model of ragi cultivation**. The district, once plagued by **extreme poverty and Naxalite insurgency**, underwent a remarkable turnaround under Gaurav's leadership. For his efforts, he received the **Prime Minister's Award for Excellence in Public Administration**. The shift to ragi cultivation **brought nutritional benefits** to the predominantly Adivasi population in Gumla.

Usage: The example can be used to show the ethical values of Leadership, Innovation, Empathy, Social Responsibility, and Public Service Excellence.

2. NOBEL PRIZE WINNER MUHAMMAD YUNUS

Context:

Nobel Prize winner Muhammad Yunus was sentenced to **six months in jail** by a Bangladesh court for **violating labour laws**.

Why is Yunus facing judicial cases?

Yunus faces charges, including **corruption and fund embezzlement**. The court found his company, Grameen Telecom, guilty of **labour law violations**.

However, supporters claim the case is **politically motivated** due to his strained relationship with **Prime Minister Sheikh Hasina**, who accused him of exploiting the poor. In August last year, over 160 personalities like **Barack Obama and ex-UN Secretary-General Ban Ki-moon**, signed a joint letter denouncing the **"continuous judicial harassment"** of Yunus.

Contributions of Yunus:

Muhammad Yunus, through his **innovative microfinance model**, particularly with the establishment of **Grameen Bank**, has made significant contributions to **alleviating poverty**. His approach of providing **small, collateral-free loans** to the poor, especially women, has empowered millions of entrepreneurs who wouldn't qualify for traditional bank loans. For his work, he was awarded the **Nobel Peace Prize in 2006**.

Other famous personalities facing issues in their own country:

Name	Details
Alexei Navalny	Russian opposition leader and anti-corruption activist ; faced imprisonment and legal challenges in Russia.
Aung San Suu Kyi	Former Myanmar leader and Nobel laureate; detained and faced charges following a military coup in Myanmar in 2021

Liu Xiaobo	Chinese human rights activist and Nobel Peace Prize laureate ; imprisoned for advocating political reform.
Raif Badawi	Saudi Arabian blogger and activist ; jailed for promoting free speech and political reform in Saudi Arabia.
Mahsa Amini	She was a women's rights activist . Following her death in the Police Custody, civil unrest and protests began against the government of the Islamic Republic of Iran but were suppressed by September of 2023 .

3. NINA SINGH

Context:

Nina Singh, a **1989 batch IPS officer** of the **Rajasthan cadre**, has made history as the **first woman** to head the **Central Industrial Security Force (CISF)**, responsible for securing Delhi Metro and airports nationwide.

Originally from Bihar, Singh, who served as a **special DG with the CISF since 2021**, has an impressive career. She was the **first woman to hold the top police post in Rajasthan**, played a key role in developing an **outreach program for the State Women's Commission**, collaborated with **Nobel laureates Abhijit Banerjee and Esther Duflo**, and worked on projects to **enhance police accessibility**. Singh, associated with high-profile cases, received the **'Ati Utkrishit Seva Medal'** for professional excellence in 2020.

Ethical Values: She reflects ethical values such as **pioneering leadership** as the first woman to hold top police posts, **dedication to public service** through outreach programs, commitment to **accessibility in policing**, and handling high-profile cases **with integrity**.

4. COEXISTENCE BETWEEN WARLI TRIBES AND LEOPARDS

Context:

The **article** discusses the peaceful coexistence between Maharashtra's Warli tribe and leopards near the **Sanjay Gandhi National Park (SGNP)**.

Unlike common fear, **Warlis worship leopards as Waghoba**, considering them part of their environment. Despite Mumbai having a high leopard density, the Warlis share space with leopards, taking precautions like **keeping children indoors after 6 pm**. Encounters are common, and the Warlis revere leopards, with shrines dedicated to Waghoba.

Other tribes co-existing with animals are:

Tribe	Animal Coexistence Examples
Bishnois (Rajasthan)	Bishnois revere blackbucks, protecting them from harm.
Jarawas (Andaman Islands)	Jarawas live in harmony with diverse wildlife on the Andaman Islands. They maintain sustainable hunting practices and have minimal impact on the environment.
Van Gujjars (Uttarakhand)	Nomadic Van Gujjars coexist with elephants in the Himalayan forests. They follow traditional practices, respecting wildlife habitats and minimizing conflicts.
Mishing Tribe (Assam)	Mishing people in Assam coexist with the Gangetic River dolphin. They consider the dolphin sacred and have rituals that promote its conservation.
Kani Tribe (Kerala)	Kani tribe in the Western Ghats coexists with elephants and other wildlife.

About Warli Tribe:

The Warli tribe, **one of Maharashtra’s largest**, resides on the outskirts of Mumbai in the **North Sahyadri region**. Renowned for their Warli wall paintings dating back to the **10th century AD**, the art depicts daily life and surroundings. Utilizing natural materials and colours, the tribe **employs bamboo brushes** in their distinctive paintings.

5. HENRY FORD

In 1914, Henry Ford, the founder of Ford Motors, made a ground-breaking decision to more than double the minimum daily wage of his workers from **\$2.34 to \$5**. This move attracted widespread attention and varied reactions, with Ford being both praised as an **“inspired millionaire”** and **accused of socialist tendencies**. The motivation behind this wage increase was rooted in **Ford’s introduction of the moving assembly line in 1913**, revolutionizing car production and reducing the time to build a Ford Model T from 12 hours to **just ninety minutes**.

Despite concerns about costs, the **wage hike proved beneficial for Ford**. Total costs decreased, and the company experienced a **surge in productivity, doubling profits within two years**. This strategic move to improve worker retention and increase efficiency through higher wages was considered by Ford as one of his **best cost-cutting decisions**.

Usage: The example can be used to showcase the values of **Productivity with Purpose**, Equity and Inclusion, Social Responsibility, **Employee Welfare and Fair Compensation**

FACTS FOR PRELIMS

GS-1

1. SURYA NAMASKAR

Context:

Gujarat set a Guinness World Record with over **50,000 people** performing **‘Surya Namaskar’** **simultaneously at 108 venues**.

- The main event took place at **Modhera Sun Temple** in **Mehsana** district.

About Surya Namaskar:

Surya Namaskar, also known as **Sun Salutation**, is a **yogic practice that involves a series of 12 postures or asanas**. The practice is **said to pay respect to the sun**.



About the Sun Temple:

Built in 1026-27 CE during Bhima I’s rule in the Solanki dynasty, the **Modhera Sun Temple** is a protected monument managed by the **Archaeological Survey of India**. Divided into **Gudhamandapa, Sabhamandapa, and Kunda**, it’s believed to commemorate the defence of Modhera against Mahmud of Ghazni.

The **Maru-Gurjara or Solanki style** architecture showcases exquisite craftsmanship from the Golden Age of Gujarat. Recognized as a **Monument of National Importance**, it was listed on the **UNESCO World Heritage tentative list** in December 2022.

The annual **Uttarardha Mahotsav dance** festival is organized at the temple by the Tourism Corporation of Gujarat. Other notable Sun Temples in India include Konark, Martand, Katarmal, Dakshinarkaa, Bhramanya, Surya Prahaar, Suryanar Kovil, and Suryanarayana temples.

2. THE KHARSAWAN MASSACRE OF 1948

Context:

On January 1, 1948, **Kharsawan in present-day Jharkhand** witnessed a massacre similar to **the Jallianwala Bagh incident**.

- During a **protest against the merger of Kharsawan with Orissa**, police **opened fire on a gathering of Adivasis**, killing hundreds or possibly thousands.

Background:

- The **demand for a separate tribal state** had been **ongoing since 1912**, gaining momentum over the years.
- **Kharsawan's merger with Orissa triggered the protest**, with over 50,000 tribals assembling, expecting leader **Jaipal Munda**.
- However, **his absence led to unrest, and police fired on the crowd**, resulting in numerous casualties.

A memorial now stands at Kharsawan, and the day **is observed as a day of mourning and remembrance in the Kolhan region of Jharkhand**.

The **Jallianwala Bagh Massacre**, also known as the **Amritsar Massacre**, occurred on April 13, 1919. **British troops opened fire on a peaceful crowd** of unarmed Indians who had gathered to **protest the Rowlatt Act** and the **arrest of pro-independence activists**.

3. DIVYA KALA MELA 2023

Context:

The **Department of Empowerment of Persons with Disabilities (Divyangjan)** is set to **inaugurate the Divya Kala Mela 2023** in Bengaluru.

- **'Divya Kala Melas' organized across India** is part of the **initiative to empower Persons with Disabilities (PwD) during the year 2023-2024**.

About Divya Kala Mela:

- Around **100 Divyang artisans from 20 states/UTs will display their products** in categories such as **home décor, clothing, stationery, eco-friendly items, packaged food, organic products, toys, gifts, and personal accessories**.
- The Mela will also feature **cultural activities and performances by Divyangjan artists**, providing a **platform for marketing and showcasing their skills**.

4. MAHARISHI VALMIKI INTERNATIONAL AIRPORT

Context:

The Prime Minister inaugurated the newly constructed **Ayodhya Airport**, naming it **Maharishi Valmiki International Airport**.

Maharishi Valmiki is a **legendary poet and the traditional author of the epic Ramayana**. He is known as the **Adikavi, or "First Poet"** because he is credited with **discovering the first śloka, or verse**, which defined the form of **Sanskrit poetry**.

Maharishi Valmiki is highly respected in Hindu culture for his **contribution to literature and his role in preserving the story of Lord Rama**. The Valmiki Ramayana is one of the **foundational texts of Hindu philosophy, morality, and spirituality, and it continues to be a source of inspiration** for millions of people.

5. BAB EL-MANDEB STRAIT

Context:

Explosions were reported near a cargo ship in the **Bab el-Mandeb Strait** on January 2, according to the **UK Maritime Trade Operations (UKMTO)**. The ship was travelling between the **coasts of Eritrea and Yemen**.

What is a Strait?

A strait is a narrow, **naturally formed waterway that connects two larger bodies of water**, typically seas or oceans. They can be formed by a variety of geological processes, such as **tectonic activity, erosion, or the submersion of land**.

The **Strait of Bab el-Mandeb** is a crucial **maritime choke-point**, connecting the Red Sea with the **Gulf of Aden and the Indian Ocean**.

Important Straits of the World are:

Strait	Connecting Water Bodies
Strait of Gibraltar	Mediterranean Sea and Atlantic Ocean
Bosporus Strait	Black Sea and Sea of Marmara
Strait of Hormuz	Persian Gulf and Gulf of Oman
Malacca Strait	The Andaman Sea and South China Sea
Bab el-Mandeb Strait	Red Sea and Gulf of Aden
English Channel	North Sea and English Channel
Taiwan Strait	East China Sea and South China Sea
Cook Strait	Tasman Sea and Pacific Ocean
Torres Strait	Coral Sea and Arafura Sea
Davis Strait	Baffin Bay and Labrador Sea
Palk Strait	Bay of Bengal and Gulf of Mannar

6. GI TAG PRODUCTS

Context:

Seventeen products have been awarded the **Geographical Indications (GI) tag**

State/UT	Short Description
Odisha	Lanjia Saura paintings: Wall mural art with spiritual importance.
	Dongaria Kondh shawl: Unique and ancient knitted shawls reflecting culture and beliefs.
	Khajuri Guda: Natural sweetener made from date palm juice.
	Dhenkanal Magji: Milk product.
	Similipal Kai Chutney: Chutney is made from indigenous Kai fruit.
	Nayagarh Kanteimundi Brinjal: Vegetable crop with prickly thorns.
Arunachal Pradesh	Koraput Kalajeera Rice: Rice variety from Koraput.
	Handmade Carpets: Artisan-crafted carpets.
	Wancho Wooden Craft: Ethnic art practiced by Wancho tribes.
West Bengal	Adi Kekir (Ginger): Ginger variety.
	Tangail Saree, Garad Saree, Korial Saree: Traditional sarees.
	Kalonunia Rice: Rice variety.
J&K	Sundarban Honey: Honey from the Sundarbans
Gujarat	Anardana: Pomegranate product from Ramban.
	Kachchhi Kharek: Local product from Gujarat.

About GI Tags:
 A Geographical Indication (GI) is a **designation used on products with a specific geographical origin**, indicating qualities or reputation linked to that origin. Internationally recognized **under the Paris Convention**, GI is part of **Intellectual Property Rights (IPRs)**, covered by the **WTO's TRIPS Agreement, Madrid Agreement, and Lisbon Agreement**.

In India, GI registration is governed by the **Geographical Indications of Goods (Registration and Protection) Act of 1999**. Administered by the Registrar of Geographical Indications (RGI), it identifies **agricultural, natural, or manufactured goods**, providing legal protection **for 10 years**, renewable. The **Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry**, oversees GI registration, offering protection against unauthorized use, promoting exports, and ensuring quality and distinctiveness.

GS-2

1. INTERNATIONAL COURT OF JUSTICE (ICJ)

Context:

South Africa recently moved to **file a case against Israel at the International Court of Justice (ICJ), accusing Israel of genocide**.

- South Africa has **expressed strong support for Gaza and criticized Israel's actions** on the basis of **1948 Genocide Convention**.
- South Africa's **historical solidarity with Palestine is attributed to its own experience of discrimination, alignment with anti-discrimination activism, and opposition to Western influence**

1948 Genocide Convention, which defines genocide as acts committed with **the intent to destroy a national, ethnic, racial, or religious group**.

ICJ vs. ICC		
	International Court of Justice (ICJ) La Cour Internationale de Justice (CIJ)	International Criminal Court (ICC) La Cour pénale internationale (CPI)
Year Court Established	1946	2002
UN-Relationship	Official court of the U.N., commonly referred to as the "World Court."	Independent. May receive case referrals from the UN Security Council.
Location	The Hague, The Netherlands	The Hague, The Netherlands
Types of Cases	Contentious between parties & Advisory opinions	Criminal prosecution of individuals
Subject Matter	Sovereignty, boundary, & maritime disputes, trade, natural resources, human rights, treaty violations, treaty interpretation, and more.	Genocide, crimes against humanity, war crimes, crimes of aggression
Funding	UN-funded.	Assessed contribution from state parties to the Rome Statute; voluntary contributions from the U.N.; voluntary contributions from governments, international organizations, individuals, corporations and other entities.

2. NATIONAL TRANSIT PASS SYSTEM

Context:

The Indian government has introduced the **National Transit Pass System (NTPS)**, a unified platform for the **seamless transport of forest goods across the country through a single permit**.

- Union Minister for **Environment, Forest and Climate Change**, inaugurated the system, emphasizing its role in **promoting transparency and simplifying transportation processes for forest and agro-forestry businesses**.

Features:

- The NTPS operates as a **web portal and mobile application**, enabling **online filing of applications** for permission to **transport forest products and obtain no-objection certificates (NOCs)**.
- The system **replaces the need for merchants and**

farmers to obtain permits from multiple states for inter-state transportation of forest and agro-forestry products.

- The QR-coded permits issued by NTPS are machine-readable and can be decoded by any state forest department in the country, streamlining the process and reducing the time taken to obtain permits.

The initiative aims to facilitate one-nation-one-pass transportation for forest products, enhancing the ease of doing business for timber merchants and farmers involved in agro-forestry.

3. SUKANYA SAMRIDDHI YOJANA (SSY) SCHEME

Context:

The government has increased the interest rate on the Sukanya Samriddhi Yojana (SSY) scheme by 20 basis points for the January-March quarter ahead of the 2024 Lok Sabha polls. The new interest rate is **8.2%**, up from the previous 8%.

About the scheme:

Objective	Aims to ensure <u>equitable share to a girl child</u> in resources and savings of a family.
Scheme	Small deposit scheme for a girl child launched under the <u>"Beti Bachao, Beti Padhao" initiative</u> . Offers a <u>higher interest rate than PPF</u> , exclusive to girls <u>below 10 years</u> with a longer lock-in period.
Start Date	2015
Investment Type	Small deposit account. The scheme offers <u>income tax benefits</u> under <u>Section 80C</u> . Interest earned through the Sukanya Samriddhi Account is <u>tax-free</u> . Withdrawals can be made after the account holder turns 18, with a maximum <u>annual</u> withdrawal limit of <u>50% of the balance</u> .
Where	Post office and selected banks
Max Number of Accounts	1 account per girl, Maximum of 2 girl children
Age Eligibility	From birth to 10 years of the girl's child
Min. Deposit	Rs. 250 per year (Previously Rs. 1000), further multiples of Rs. 100
Max. Deposit	Rs. 1.5 lakh per year
Interest Rate	subject to annual changes
Partial Withdrawal	50% allowed at the age of 18 years of the girl
Maturity	<u>21 years from the date of account opening or marriage</u> , whichever is earlier

4. BHARATIYA NYAY SANHITA (BNS) FOR HIT-AND-RUN CASES

Context: Truck, bus, and tanker drivers across India are protesting against the newly implemented Bharatiya Nyay Sanhita (BNS) for hit-and-run cases.

What is a Hit and Run Case?

A hit-and-run case refers to a situation where a person involved in a road accident leaves the scene without stopping to identify themselves or render assistance to the injured parties.

What are Bharatiya Nyay Sanhita (BNS) provisions for hit-and-run cases?

BNS has replaced the colonial-era Indian Penal Code and imposes stringent regulations, including up to 10 years of imprisonment or a fine of Rs 7 lakh (under Section 106 of the act) for drivers causing serious accidents who fail to inform the authorities.

The increase in sentence duration to 10 years is based on the Supreme Court's recommendations for stricter actions against reckless drivers who flee accident scenes.

Why are truck Unions Protesting?

Truck drivers fear additional criminal liability under Section 106, leading to a call for a strike.

Solution:

The government held talks with the All-India Motor Transport Congress, and plans to implement BNS only after consulting.

The issue questions whether the law should increase jail terms for accidents and emphasizes the need for a comprehensive accident prevention policy covering imprisonment, compensation, and safety.

5. SMART 2.0

Context:

The Central Council for Research in Ayurvedic Sciences (CCRAS) and the National Commission for Indian System of Medicine (NCISM) have jointly launched the 'SMART 2.0' (Scope for Mainstreaming Ayurveda Research among Teaching professionals) program.

- This initiative aims to foster collaborative clinical studies in priority areas of Ayurveda with academic institutions and hospitals across India.

The goal of 'SMART 2.0' is to generate tangible evidence demonstrating the efficacy and safety of Ayurvedic interventions through interdisciplinary research methods, translating the findings into public healthcare.

The previous version, '**SMART 1.0**,' covered around 10 diseases with active participation from teaching professionals.

6. SUPREME COURT LEGAL SERVICES COMMITTEE (SCLSC)

Context:

Supreme Court judge **Justice BR Gavai** has been nominated as the Chairman of the Supreme Court Legal Services Committee (SCLSC), succeeding Justice Sanjiv Khanna.

What is SCLSC?

The Supreme Court Legal Services Committee (SCLSC) was **established under Section 3A of the Legal Services Authorities Act, 1987**, to provide "**free and competent legal services to the weaker sections of society.**"

The committee is composed of **Chairperson BR Gavai and nine members nominated** by the Chief Justice of India (CJI). It has the authority to appoint officers and employees as **prescribed by the Centre**, in consultation with the CJI.

Constitutional provisions

- **Free Legal Aid:** Article 39A emphasizes the need for **accessible justice, ensuring free legal aid for the poor** and weaker sections of society
- **Articles 14 and 22(1):** Promoting equality and informed rights for all under

About the Act:

Legal Services Authorities Act, 1987 gives a statutory base to legal aid programs, ensuring free and competent legal services for various eligible groups. **NALSA**, constituted in 1995, **monitors and evaluates** the implementation of legal aid programs nationwide. **State Legal Services Authorities and District Legal Services Authorities** are established to execute NALSA's policies and provide legal services at the state and district levels.

7. REGISTERED UNRECOGNISED POLITICAL PARTIES (RUPPS)

Context:

The Election Commission of India has **introduced new rules for the allocation of symbols to Registered Unrecognised Political Parties (RUPPs).**

What are RUPPs?

RUPPs, or Registered Unrecognised Political Parties, include **newly registered parties**, those **not meeting the vote percentage for state party status**, or those never contesting elections post-registration.

Only 30% of RUPPs participated in the **2019 Lok Sabha election**. They are governed by the **Representation of the People Act (RPA) of 1951**. Common symbols are provided to RUPPs based upon an undertaking that they would put up "**at least 5% of total candidates** with regard to said **Legislative Assembly election of a State**".

What are the new rules?

Under new rules **effective from January 11, 2024**, Registered Unrecognised Political Parties (RUPPs) **must provide audited accounts of the last three financial years**, expenditure statements of the last two elections, and the authorized office-bearer's signature for symbol allocation. Once these details are furnished, RUPPs become eligible for the **concession of common symbol allotment**, allocated as per the **Election Symbols (Reservation & Allotment) Order, 1968**.

GS-3

1. RADIOCARBON DATING

Context:

Radiocarbon dating is a scientific method that utilizes the **isotope carbon-14 to determine the age of organic materials.**

- **Carbon-14 is created in the Earth's atmosphere** when cosmic rays interact with nitrogen-14 atoms, producing carbon-14.
- This isotope enters the **food chain through plants, animals, and other biomass.**

How Radiocarbon Dating works:

- The process involves **measuring the remaining amount of carbon-14 in an organic sample.**
- While the organism is alive, it **constantly exchanges carbon with its surroundings.**
- When it dies, this **exchange stops**, and the concentration of **carbon-14 in the body decreases over time due to radioactive decay.**
- By **measuring the remaining carbon-14**, scientists can estimate the time since the organism's death.

The advent of radiocarbon dating is **considered a revolution in archaeology and geology**, providing an **objective and numerical dating method** for organic remains.

2. CHAMELEON TROJAN

Context:

A new version of the '**Chameleon Trojan**' malware has been discovered by security researchers, capable of **disabling biometric authentication methods such as fingerprint and face unlock to steal a phone's PIN.**

- The **malware attaches itself to legitimate Android apps like Google Chrome** to evade detection, running code in the background.
- It uses the **Accessibility service to gain unauthorized**

access, showing an HTML page with instructions on enabling the service in newer Android versions.

- **Chameleon Trojan collects sensitive information**, such as **PINs and passwords**, and tracks user app usage habits to launch attacks when the device is least likely to be in use.

To protect against this malware, users are advised to **avoid unofficial app sources**, refrain from **enabling the Accessibility service for unknown apps**, **run regular security scans**, and **keep Google Play Protect enabled**.

3. VIRTUAL DIGITAL ASSET SERVICE PROVIDERS (VDA SPS)

Context:

The **Financial Intelligence Unit India (FIU IND)** issued show-cause notices to 9 **offshore virtual digital asset service providers** (VDA SPS), including Binance and Huobi, for **operating illegally** without complying with **anti-money laundering regulations** (under the **Prevention of Money Laundering Act (PMLA), 2002**).

What are VDA SPSs?

VDA SPSs (Virtual Digital Asset Service Providers) are entities (operating within or outside India) that offer **digital asset services**, such as **cryptocurrency exchanges**.

Regulations in place for VDA SPSs:

In March 2023, India mandated **VDA SPSs to adhere to the Prevention of Money Laundering Act under the Anti Anti-Money Laundering/Counter Financing of Terrorism (AML-CFT) framework**. They also have **to verify client identities** and record financial transactions. Non-compliance led to notices and a request to **block URLs**. They are required to be registered with **FIU IND as Reporting Entity**. Currently, 31 VDA SPSs have registered with FIU IND.

Concerns of Money Laundering Due to VDAs:

1. **Predicate crime:** Raising funds through illegal activities by selling illegal goods or services in return for virtual assets.
2. **Placement:** Converting ill-gotten virtual assets into fiat currencies within a traditional financial system.
3. **Layering:** Converting fiat assets into virtual assets, exchanging virtual assets, and vice-versa.
4. **Integration:** Forming an online company that accepts crypto payments to legitimize income and clean dirty crypto.
5. **Hiding:** Using anonymizing services like mixers and tumblers to break the links between crypto transactions.

Global Regulations:

Global regulations vary, with **Dubai's VARA** having a licensing framework, the **EU's MiCA** focusing on market rules, and

the **U.S. lacking a comprehensive framework**. The **Bureau for International Settlements (BIS)** suggests considering an **outright ban**, containment, or regulation, emphasizing the need to balance benefits and costs, especially for **emerging market economies**.

About Financial Intelligence Unit – India

It is an organisation (**HQ: New Delhi; formed: 2004**) under the **Department of Revenue, Government of India** which collects financial intelligence about offences under the **Prevention of Money Laundering Act, 2002**. It is an **independent body** reporting directly to the **Economic Intelligence Council (EIC) headed by Finance Minister**.

4. GREEN FUNDS/DEPOSIT

Context:

The Reserve Bank of India clarified that **banks and NBFCs are not obligated to raise green funds**.

What are Green Funds/Deposits?

Green funds refer to **financial resources** (interest-bearing deposit) specifically earmarked for **environmentally sustainable projects and activities**. These funds are designed to support initiatives that contribute to **ecological well-being**, such as renewable energy, green transport, and eco-friendly construction.

What are REs?

Regulated Entities (REs) are **financial institutions and organizations** operating in the financial sector that fall under the regulatory purview of a central authority, such as the **Reserve Bank of India (RBI)**.

REs under the Framework for acceptance of Green Deposits include:

1. **Scheduled Commercial Banks including Small Finance Banks** (excluding Regional Rural Banks, Local Area Banks, and Payments Banks)
2. **All Deposit-taking NBFCs** registered with the RBI
3. **Housing Finance Companies (HFCs)**

Other aspects of Green Deposits are:

- **Green deposits in India must be in Indian rupees.** The framework aims to encourage **green financing and address concerns**, supporting the flow of credit to eco-friendly projects.
- **Sectors included are** Renewable Energy, Energy Efficiency, Clean Transportation, Climate Change Adaptation, Sustainable Water and Waste Management, Green Buildings, etc.
- **Exclusions (don't come under Green Deposit framework):** Projects involving new or existing extraction, production and distribution of fossil fuels; Nuclear power generation; Direct waste incineration; Land-

fill projects; **Hydropower plants larger than 25 MW, etc.**

Monitoring: Green deposit funds are subject to **independent third-party verification** on an **annual basis**.

5. MARINE ENERGY CONVERSION SYSTEMS SECTIONAL COMMITTEE (MECSSC)

Context:

The [Bureau of Indian Standards](#) (BIS) has taken a significant step in promoting **standardization in the field of Marine Energy Conversion Systems** by establishing the Marine Energy Conversion Systems Sectional Committee **under ETD 54**.

It will establish **comprehensive standards and guidelines** for various aspects of Marine Energy Conversion Systems (MECS). Promote **collaboration, innovation, and knowledge exchange** within the MECS domain.

What are Marine Energy Conservation System?

Marine Energy Conversion Systems refer to **technologies that harness energy from the ocean**, converting it into electricity or other usable forms. Examples include:

- **Tidal Energy:** Utilizing the rise and fall of tides to generate electricity through tidal turbines or barrages.
- **Wave Energy:** Capturing the kinetic energy of ocean waves to generate power through devices like wave energy converters.
- **Ocean Thermal Energy Conversion (OTEC):** Leveraging temperature differences between the warm surface water and cold deep water to produce electricity.
- **Salinity Gradient Power:** Generating energy from the difference in salt concentration between freshwater and seawater.

About BIS:

The Bureau of Indian Standards (BIS) (HQ: New Delhi) is the **National Standards Body of India** under the **Ministry of Consumer Affairs, Food & Public Distribution**. Established by the **Bureau of Indian Standards Act, 2016**, effective from October 12, 2017, it replaced the **Indian Standards Institution (ISI)**. The BIS Act, 2016, designates the Minister in charge of the relevant Ministry as the ex-officio President. It also serves as India's **WTO-TBT (Agreement on Technical Barriers to Trade) enquiry point**.

6. UNITED LIBERATION FRONT OF ASOM (ULFA)



Peace Agreement with ULFA

Context: The Union Ministry of Home Affairs (MHA), the Assam government, and the pro-talks faction of the **United Liberation Front of Asom (ULFA)** have signed a memorandum of settlement

What is ULFA?

It is an armed militant group in Assam, founded in 1979, seeking independence for the indigenous Assamese people. It was banned in 1990, and signed a **"Suspension of Operations" agreement** in 2011, abandoning the demand for independence.



Other Recent Agreements	Details
Peace Agreement with UNLF (2023)	UNLF (United National Liberation Front) is the oldest valley-based Meitei insurgent group in Manipur which signed a peace agreement with the central government
Assam-Meghalaya Inter-State Boundary Agreement (2022)	Aims to resolve disputes in six sectors . Assam receives about 181 sq. km, and Meghalaya gets about 18 sq. km of the disputed areas.
Karbi Anglong Agreement (2021)	Tripartite agreement involving five Assam insurgent groups, the Centre, and the state government. Five militant organizations (KLNLF, PDCK, UPLA, KPLT, and KLF) laid down arms, with over 1,000 armed cadres transitioning to mainstream society.
Bodo Accord (2020)	Signed by the central government, Assam government, and Bodo groups (including NDFB factions), it redraws and renames the Bodoland Territorial Area District (BTAD) as the Bodoland Territorial Region (BTR) in Assam .
Bru-Reang Agreement (2020)	Quadripartite agreement involving the Centre, Mizoram, Tripura governments, and Bru leaders . Aims to settle Bru community members, indigenous to Northeast India, in Tripura, with the Home Ministry covering settlement expenses.
NLFT-Tripura Agreement (2019)	NLFT, banned since 1997, reached an agreement resulting in the surrender of 88 cadres with 44 weapons . The National Liberation Front of Tripura operated from camps across the international border.
Roll Back of Armed Forces Special Powers Act (AFSPA)	The government withdrew AFSPA from a significant part of the Northeast , including the entire Tripura and Meghalaya. In Arunachal Pradesh, AFSPA remains enforced in only three districts. Visit Insights IAS Daily CA

7. REVERSE FLIP

Context:

Several **well-funded startups**, including **Pine Labs** and **Udaan**, are considering **relocating their holding companies to India**, a trend known as **"reverse flipping" ahead of potential IPOs**.

- This shift is attributed to a **tightening regulatory environment, potential IPO plans, and the desire to operate from the home market**.

Reverse Flipping is a term used to **describe the trend of overseas start-ups shifting their domicile to India and listing on Indian stock exchanges**. Reverse flipping can be done through share swaps and inbound mergers

Some reasons for reverse flipping include:

- Access to venture capital
- Favourable tax regimes
- Better intellectual property protection
- Favourable government policies

8. 20-30% HEALTH TAX ON FOOD HIGH IN SUGAR

Context:

A study **commissioned by Niti Aayog** recommends imposing a **health tax of 20-30% in addition to GST** on foods **high in sugar, salt, and fat**, as well as **sugar-sweetened beverages**

(SSBs).

- The study, **funded by UNICEF**, aims to **influence policies that promote healthy eating practices.**
- The research suggests that such taxes **could lead to a 13-18% decrease in demand for sugar in bulk purchases.**
- India, being the largest consumer of **sugar globally, faces health challenges, and the study suggests that taxing unhealthy foods may help reduce obesity and related health issues.**

The study draws parallels with other countries that have successfully **implemented health taxes on similar products, such as Mexico, Chile, Saudi Arabia, Argentina, and South Africa.**

Key Activities	Rapid scanning of the skies, detailed mapping of visible galaxies, collection of survey data for insights into the early evolution of our galaxy, and the search for extraterrestrial life
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9. SQUARE KILOMETRE ARRAY (SKA) PROJECT

Context:

Union Cabinet has approved the Square Kilometre Array (SKA) project, the **world's largest radio telescope**, involving international collaboration, including India's participation with a financial commitment.

Major aspects of the Project:

Nature of Project	Development of the world's largest radio telescope. Giant Metre wave Radio Telescope (GMRT) is playing a role in SKAO
Participating Countries	Australia, Canada, China, India, Italy, New Zealand, South Africa, Sweden, the Netherlands, UK (hosting headquarters)
India's Role	India joined SKAO in 2012 as an Associate Member and has actively participated in the pre-construction phase of the SKA telescopes
Project Objective	Study galaxies in the universe, map visible galaxies with unprecedented detail , provide data on the evolution of our galaxy, and search for signs of extra-terrestrial life , Detect Gravitational Waves
Observatory Structure	Square Kilometre Array Observatory (SKAO) - an intergovernmental organization headquartered in the UK. SKAO will consist of one global observatory , operating two telescopes, across three sites . Two SKA telescopes will be at radio-quiet sites in South Africa and Australia . They will operate as one large unit.
Construction Phases	Two phases - SKA1 construction started in December 2022, with operations expected to begin by 2029

10. DESERT CYCLONE

Context: The India-UAE Joint Military Exercise, named 'DESERT CYCLONE,' has commenced in Mahajan, Rajasthan, and is scheduled from 2nd to 15th January 2024.

India has also been a regular participant at the **biennial International Defence Exhibition (IDEX)** in Abu Dhabi.

Exercise Name	Objectives
DESERT CYCLONE	Enhance interoperability in Sub-conventional Operations
DESERT FLAG	Joint air exercises and training
Zayed Talwar	The bilateral naval exercise 'Zayed Talwar' aims to enhance the interoperability and synergy between the Indian Navy and UAE Navy.
INDE-UAE BILATERAL EXERCISE	Focus on counter-terrorism and strategic cooperation

11. CO2 LEVELS IN PLANET ATMOSPHERE

Context:

New research suggests that **lower levels of carbon dioxide (CO2)** in a planet's atmosphere compared to its **neighbours could indicate the presence of liquid water on that planet.**

- The drop in CO2 levels relative to neighbouring planets **may suggest the absorption of the gas by an ocean or isolation by biomass on a planetary scale.**
- The study, introduces a new "**habitability signature**," offering a **practical method for detecting habitability in planets.**

Significance:

- The researchers propose that **examining CO2 levels and habitability could provide insights into Earth's environmental tipping points and carbon levels that could render a planet uninhabitable.**
- The habitability signature may also serve as a **biosignature, as living organisms capture CO2, with the emission of oxygen as a tell-tale sign.**

12. POLYMER ELECTROLYTE MEMBRANE FUEL CELL

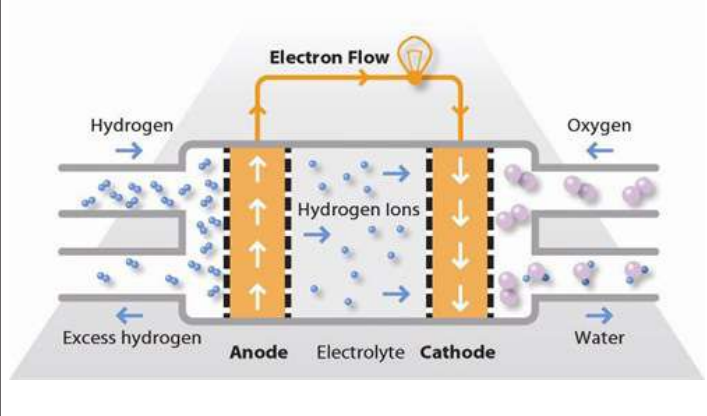
Context:

The Indian Space Research Organisation (ISRO) has successfully tested a **100 W class Polymer Electrolyte Membrane Fuel Cell** based Power System (FCPS) on its orbital platform, **POEM3**.

- The experiment aimed to **assess the operation of Polymer Electrolyte Membrane Fuel cells** in space and gather data for designing systems for future missions.
- **Hydrogen fuel cells** produce **electricity directly and are efficient, emission-free, and ideal for space missions**.

The test was part of the POEM-3 experiment executed during the **PSLV-C58 X-ray Polarimeter Satellite (XPoSat) mission**.

Polymer electrolyte membrane (PEM) fuel cells, also known as **proton exchange membrane fuel cells**, are electrochemical devices that **convert chemical energy into electrical energy**. They use a proton-conducting polymer membrane as the electrolyte and typically use **hydrogen as the fuel**.



13. DIRECT-TO-MOBILE (D2M) TECHNOLOGY SERVICES

Context:

Indian telecom operators have urged the government to auction spectrum for Direct-to-mobile (D2M) technology services.

What is D2M Technology?

D2M (Direct-to-mobile) technology is a **new-age communication approach** that combines broadband and broadcast. D2M allows **mobile phones to capture territorial digital TV signals**, enabling the direct streaming of multimedia content, including live TV matches, without the need for internet connectivity. It is **similar to that of an FM radio**, where a receiver within the device can tap into different radio frequencies.

Benefits:

It proves **beneficial for delivering emergency alerts, disaster management audio content, and citizen-centric information** directly to mobile devices, reducing reliance on internet data consumption.

Difference between Broadband and Broadcast?

Broadband involves **high-speed internet access, transmitting data in both directions**. **Broadcast** is a **one-way transmission of content**, such as TV or radio signals, to a wide audience. Broadband is interactive, while broadcast is typically unidirectional.

14. ROOM TEMPERATURE SUPERCONDUCTIVITY

Context:

A recent study by **scientists in China and Japan** has reported signs of **superconductivity** in a material **called LK-99**, which had been controversially claimed to be a **room-temperature and pressure (RTP) superconductor**.

The researchers observed the **Meissner effect in copper-substituted lead apatite**, indicating superconductivity. The **Meissner effect is crucial** in identifying materials that conduct electricity without resistance.

Previously, in August (2023), **Reddmatter** (a new superconductor material) was developed.

“Reddmatter”: New superconductor Material

Context: A group of researchers at the University of Rochester claim to have developed the first commercially accessible material that eliminates the loss of energy as electricity moves along a wire.

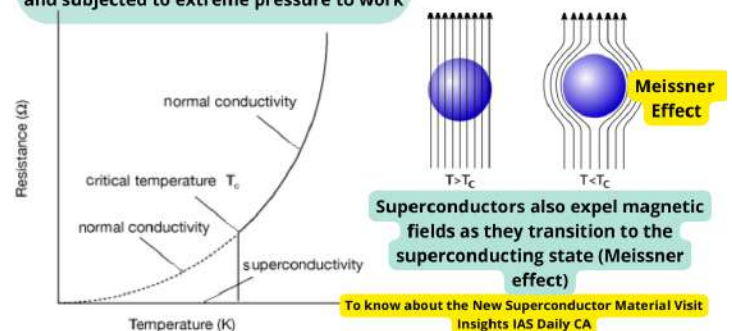


H. Kamerlingh Onnes – 1911 – Pure Mercury

About Superconductivity:

Superconductors are materials that conduct electricity with no resistance. Unlike the more familiar conductors such as copper or steel, a superconductor can carry a current indefinitely without losing any energy. However, superconductivity is hard to achieve as they need to be extremely cooled and subjected to extreme pressure to work

Superconductivity was discovered in 1911 by Heike Kamerlingh Onnes, who studied the resistance of solid mercury at cryogenic temperatures using the recently discovered liquid helium as ‘refrigerant’.



Superconductors also expel magnetic fields as they transition to the superconducting state (Meissner effect)

To know about the New Superconductor Material Visit Insights IAS Daily CA

What is the Meissner effect?

It is a phenomenon **observed in superconductors**, where these materials **expel magnetic fields** from their interior when **cooled below a critical temperature**. This expulsion occurs as the **material transitions to a superconducting**

state, displaying the ability to conduct electric currents without any resistance.

15. BIO-CREDITS

Context:

There is growing momentum behind the **concept of biodiversity credits or bio-credits**, proposed as a **financial mechanism** to support the targets outlined in the **Kunming-Montreal Global Biodiversity Framework (KMGBF)** adopted in 2022.

What is Bio-Credits?

Bio-credits are **financial instruments** proposed to support the targets outlined in the **Kunming-Montreal Global Biodiversity Framework**. Similar to **carbon credits**, bio-credits aim to **generate funds for biodiversity protection** and restoration by selling credits, with proceeds directed toward conservation projects.

Organizations Involved:

The Biodiversity Credit Alliance was launched (in COP15 of CBD, 2022) to promote bio credits. Other initiatives, such as the **Ocean Conservation Commitments**, have emerged to encourage the use of Bio-credits.

About KMGBF:

Event	Details
Conference Name	15th Conference of Parties (COP15) to the UN Convention on Biological Diversity (CBD), 2022 adopted Kunming-Montreal Global Biodiversity Framework (GBF)
Goals of GBF	Restore 30% of degraded ecosystems globally (on land and sea) by 2030
	Conserve and manage 30% of areas (terrestrial, inland water, coastal, and marine) by 2030
	Prevent the extinction of known species
	Reduce various environmental risks and footprints
Targets of GBF	23 targets for achievement by 2030 , including the 30x30 Deal, reduction of pesticide and nutrient risks, pollution control, sustainable consumption, climate change mitigation, invasive species control, and wildlife trade management
Need for Bio-Credit	The KMGBF targets private investment through innovative schemes like bio credits, with an estimated annual need of at least \$200 billion for biodiversity protection .

Examples of Bio-Credits:

Bio-Credit Examples	Details
Ocean Conservation Commitments (OCCs)	Launched in September 2023 by the Government of Niue and the non-profit Tofia Niue. Offers OCCs based on the size of Niue’s Marine Protected Area, available for purchase to fund conservation projects.
Wallacea Trust	A biodiversity and climate research organization based in the UK. Has financial commitments for 5 million biodiversity credits , with 60% of the issuance price directed to local stakeholders.
Besparingskog (Sweden)	A forest cooperative in Sweden. Swedbank has invested an undisclosed amount to protect 13 hectares of forested area over 20 years, using bio credits.
GlaxoSmithKline (GSK)	Purchased bio credits from re-PLANET to protect Cusuco National Park in Honduras.
ValueNature	A company facilitating the development of biodiversity credits. Plans to bring biodiversity credits to the market in 2024 , aiming to generate funds for biodiversity protection.

16. GREEN COVER INDEX

Context:

The **National Highways Authority of India (NHA)** has signed a three-year Memorandum of Understanding (MoU) with the **National Remote Sensing Centre (NRSC)**, a part of the **Indian Space Research Organization (ISRO)**.

- The collaboration aims to develop and report a **“Green Cover Index”** for **India’s extensive National Highways network**.
- The **Green Highways Policy**, initiated in 2015, **prioritizes greening highway corridors, and currently, monitoring relies on field visits**.
- This innovative approach **promises a reliable, time-saving, and cost-effective solution**, allowing for a **macro-level assessment of greenness along highways**.

The project’s **primary goal is to capture the Green Cover Index region-wise for National Highways in the first assessment cycle**, followed by annual cycles focusing on estimating growth patterns.

17. CYBER KIDNAPPING

Context:

Recently a Chinese student in Utah was cyber kidnapped.

- “**Cyber kidnapping**” refers to a crime where perpetrators convince **victims to hide, then contact their loved ones for ransom.**
- The victim may send pictures that suggest they **are held captive, creating a false impression of danger.**
- The **perpetrators, not physically present, monitor the victim online through** video-call platforms.

Experts warn that with the rise of Artificial Intelligence, scammers can use technology to enhance deception.

18. AADHAAR ENABLED PAYMENT SYSTEM (AEPS)

Context:

In 2023, Aadhaar Enabled Payment System ([AePS](#)) frauds accounted for **11% of cyber financial scams originating in India**, according to an analysis by the **Indian Cyber Crime Coordination Centre (I4C).**

Most of these frauds occurred in **Bihar and Jharkhand.** The central government’s portal and the 1930 helpline received over 13 lakh complaints related to cyber-enabled financial frauds. AePS fraud included instances of **biometric cloning.**

What is AePS?

It is a **payment service** that allows **users to access their Aadhaar-enabled bank accounts** for transactions. The analysis also highlighted other categories of cyber financial frauds, both locally and internationally, including sextortion, investment scams, illegal loan apps, and romance scams. Social media-related cybercrimes totaled 1,41,056 reported cases in 2023.

	Details
What is AePS?	The AePS is a bank-led model facilitating online interoperable financial transactions through Aadhaar authentication.
	It is managed by the National Payments Corporation of India (NPCI) , a joint initiative of the RBI and IBA.
	Aimed at providing secure access to banking services , especially for rural and marginalized communities.

Working	Eliminates the need for OTPs, bank details, and other financial information. Transactions require only the bank name, Aadhaar number, and captured fingerprint during Aadhaar enrollment.
Benefits:	Facilitates cash transfers for government schemes directly into beneficiaries’ accounts; Allows access to bank accounts through any Banking Correspondent or micro-ATM of any bank
How is AePS Exploited?	Leaked Biometric Details: Cybercriminals use stolen biometric information for unauthorized transactions. Silicone Thumbs: Scammers use silicone thumbs to deceive biometric devices and perform fraudulent transactions. Lack of Transaction Notifications: Victims may not receive immediate alerts for unauthorized transactions. Systemic Issues: Biometric mismatches, poor connectivity, and weaker systems affect performance and reliability.
Preventive Measures	Amendments to Aadhar Regulations 2016: Proposed changes restrict the sharing of Aadhaar details without redaction. Aadhaar Lock: Users are advised to lock and unlock the Aadhaar as needed to prevent unauthorized biometric use.
About I4C	Indian Cyber Crime Coordination Centre (I4C) deals with all types of cybercrimes in India. It will be set up under the newly created Cyber and Information Security (CIS) division of the MHA. The I4C aims to centralize cyber security investigations , develop response tools, and foster collaboration among private companies to combat cyber-crime.

19. WETLAND CITY ACCREDITATION (WCA)

Context:

The Ministry of Environment, Forest, and Climate Change (MoEF&CC) has nominated **Indore, Bhopal, and Udaipur** for **Wetland City Accreditation (WCA)** under the Ramsar Convention on Wetlands. It is the **first nomination of its kind** by the Ministry of Environment, Forest, and Climate Change (MoEFCC).

MAPPING

1. CHINNAR WILDLIFE SANCTUARY (KERALA)

- **Ramsar Site in Indore:** Sirpur Wetland, Yashwant Sagar (Ramsar site closer to Indore)
- **Ramsar Site in Bhopal:** Bhoj Wetland
- **Ramsar Site in and around Udaipur:** Five major wetlands — Pichola, Fateh Sagar, Rang Sagar, Swaroop Sagar, and Doodh Talai

About WCA and Ramsar sites:

About Wetland City Accreditation (WCA)	It is a voluntary accreditation system to recognize the importance of wetlands in urban and peri-urban environments.
	Origin: Outcome of Ramsar Convention during COP12 in 2015 .
	Objective: Promote the conservation and wise use of wetlands , as well as sustainable socio-economic benefits for local populations
	Significance: Provides international recognition and branding for wetland conservation efforts. It will also help in the implementation of the Amrit Dharohar Initiative (to conserve Ramsar Sites in India)
	Validity: Once granted it is valid for 6 years.
What are Wetlands?	Definition: Areas of marsh, fen, peatland, or water, natural or artificial, static or flowing, with fresh, brackish, or saltwater.
Ramsar Convention	It is an Intergovernmental treaty in 1971 at Ramsar (Iran). It provides the framework for conservation and wise use of wetlands and resources.
	172 contracting parties to the Ramsar Convention as of January 2024, with India having declared 75 wetland sites .
	Montreux Record: Register of Ramsar Sites needing urgent attention, launched in 1990.
India's Largest Ramsar Site:	Sundarbans in West Bengal, covering around 11,000 square kilometres, are vital habitat for Bengal tigers.
The state with the highest number	Tamil Nadu has the highest number of Ramsar Sites in India with 14 Ramsar Sites .

Context:

A team of researchers in Kerala has identified the **presence of the Eurasian Otter (Lutra lutra)** in the state for the first time, specifically at **Chinnar Wildlife Sanctuary** in Idukki.

About Otters:

Otters, belonging to the **Mustelidae family** with 13 species, inhabit every continent **except Australia and Antarctica**. The Eurasian otter is categorized as **'near threatened'** on the IUCN Red List. Recognized as a **flagship species**, it serves as an **indicator of high-quality aquatic habitats**.

The **Eurasian otter** holds the broadest range in the world, but it faces persecution in countries like India, China, and Nepal, leading to a **decline in populations due to hunting, habitat loss, pollution**, and climate change.

This discovery adds a new member to Kerala's mammal list, making it the third species of otter found in the state, alongside the **Smooth-coated Otter and Small-clawed Otter**.

About Chinar WLS:

Aspect	Details
Location	Situated in the Idukki district of Kerala . Major rivers include Chinnar and Pambar .
Climate	Rainshadow region of Western Ghats with a 6-7 month dry season in lower areas. The average rainfall is 500mm, mostly during the NE monsoon .
Biodiversity	Home to 965 floral species, 29 mammal species including the endangered Grizzled Giant Squirrel , 225 bird species, 52 reptile species, and endemic fish like Deccan Mahseer .
Cultural Significance	Inhabited by the Muthuvan and Hill Pulaya tribes . Contains the largest mega-lithic sites in Kerala.

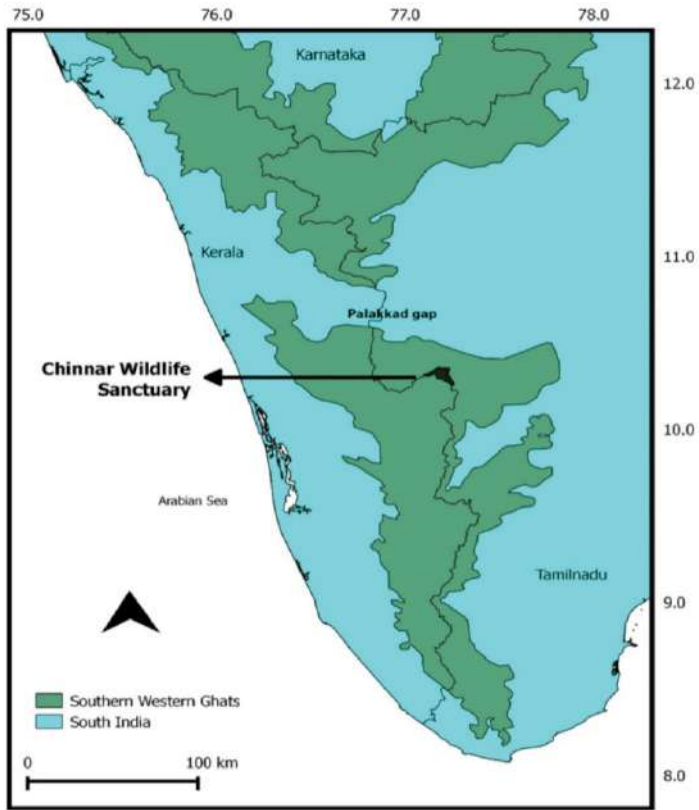


Figure 1. Location map of Chinnar Wildlife Sanctuary, southern Western Ghats



2. KALPAKKAM ATOMIC POWER STATION (TAMIL NADU)

Context:

PM dedicated to the nation's **indigenously developed Demonstration Fast Reactor Fuel Reprocessing Plant (DFRP)** at IGCAR, Kalpakkam

The plant will **reprocess spent fuel from the Fast Breeder Reactor (FBR)** at the Kalpakkam Atomic power station.

What is FBR?

A Fast Breeder Reactor (FBR) is a type of nuclear reactor that **uses fast neutrons** to cause the fission of uranium-238 (unlike conventional nuclear reactors that use slow neutrons). The term "**breeder**" refers to the ability of these **reactors to produce more fissile material than they consume**.

FBR is the key to **India's three-stage nuclear power programme**. It is the only of its kind in the world and is capable of reprocessing **both carbide and oxide fuels** discharged from the fast reactors.

3. KOCHI-LAKSHADWEEP ISLANDS SUBMARINE OPTICAL FIBRE CONNECTION (KLI-SOFC) PROJECT

Context:

PM recently inaugurated the **Kochi-Lakshadweep Islands Submarine Optical Fibre Connection (KLI-SOFC) project** during his visit to **Kavaratti, Lakshadweep**.

About	Details
What is KLI-SOFC?	The Kochi-Lakshadweep Islands Submarine Optical Fibre Connection (KLI-SOFC) project , funded by the Universal Services Obligation Fund (Digital Bharat Nidhi) under the Department of Telecommunication, involves extending submarine cable connectivity from the mainland (Kochi) to eleven Lakshadweep Islands.
Location	Kavaratti, Lakshadweep.
Implementing Agency	Bharat Sanchar Nigam Limited (BSNL) is the Project Executing Agency.

Project Overview	<p>KLI-SOFC project is a dedicated submarine optic fibre cable connecting Kochi to Lakshadweep Islands. Aimed at ensuring 100 times faster internet for the people of Lakshadweep.</p>
Benefits	<p>Faster and more reliable internet services. Facilitation of telemedicine, e-governance, educational initiatives, digital banking, and digital literacy. Aligns with 'Digital India' and 'National Broadband Mission' objectives, Strengthening services in Lakshadweep through FTTH (Fiber-to-the-Home) and 5G/4G mobile networks.</p>
Other projects	<p>The PM also dedicated a Low-Temperature Thermal Desalination (LTTD) plant for the conversion of seawater into potable water at Kadmat Island, Lakshadweep.</p>
What is LTTD?	<p>LTTD is a process under which warm surface seawater is flash evaporated at low pressure and the vapour is condensed with cold deep seawater.</p> <p>The National Institute of Ocean Technology (NIOT), under the Ministry of Earth Sciences, designs, develops, and commissions LTTD plants in coastal locations.</p>

About Lakshadweep:

It is a **union territory of India, comprising 36 islands** situated between the Arabian Sea and the Laccadive Sea. The name means **"one lakh islands"** in Malayalam and Sanskrit, though there are no more than a hundred islands. The total area is around 32 km², forming the **smallest union territory**. **Kavaratti** is the capital, and the region falls under the jurisdiction of the Kerala High Court. The Union Territory was **established in 1956** upon British departure. The majority follow **Islam**, particularly the **Shafi school**. The language spoken is **Jeseri, with Dhivehi in Minicoy**. The culture is similar to **Mappilas in Kerala**.



4. REJUPAVE TECHNOLOGY AT INDO-CHINA BORDER

Context:

The **Border Roads Organisation (BRO)** plans to enhance the operational capacity of the defence forces along the **Indo-China border in Arunachal Pradesh** by using an indigenous technology called **"Rejupave."**

What is Rejupave?

Developed by CSIR-Central Road Research Institute (CSIR-CRRI), Rejupave is a **bio-oil-based asphalt modifier that reduces the heating requirement of bituminous mixes** and preserves their temperature during transit. This technology addresses the challenges of constructing and maintaining **bituminous roads in high-altitude areas during low and sub-zero temperatures**.

The BRO has successfully applied Rejupave at the **world's highest Sela road tunnel** and LDY Road section near the China border in Arunachal Pradesh. The technology is developed using a **Bio-based eco-friendly product with 100% biooil**.

About Sela Road Tunnel:

The Sela Tunnel has been excavated **below the Sela Pass**; a high-altitude mountain pass situated at an elevation of 4,200 meters (13,800 feet) above sea level. This tunnel aims to provide **"all-weather" connectivity to Tawang**, a remote and strategically significant district in the region. It will be the **world's longest bi-lane tunnel** at an altitude above 13,000 feet.

Indo-China Border:

India shares a total boundary of **around 3,488 km with China** (the **second largest** after Bangladesh). The Sino-Indian border is generally **divided into three sectors** namely: Western sector, Middle sector, and Eastern sector. **5 states** viz. Jammu & Kashmir, Himachal Pradesh, Uttarakhand, Sikkim and Arunachal Pradesh share a border with China.

