CivilsTap

Quality & Affordable Education

CivilsTap Himachal

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NEWS

By CivilsTap Himachal

For HPAS & Other Competitive Exam in Himachal Pradesh

Mains

GENERAL STUDIES 2.

POLITY, CONSTITUTION

ISSUE OF PENDENCY OF CASES IN INDIAN JUDICIARY

Context: The Supreme Court permitted High Courts to appoint retired judges on an ad-hoc basis to address the mounting backlog of cases.

About

❖ The Supreme Court first endorsed the appointment of ad-hoc judges in its 2021 ruling in Lok Prahari v. Union of India.
  ✓ These judges were authorised to hear only criminal appeals as part of a bench led by a sitting judge.
❖ **Backlog:** As of January 2025, High Courts were burdened with a staggering backlog of 62 lakh cases.
❖ In 2021, the SC noted there have only been three recorded instances of ad hoc judges being appointed under Article 224A, calling it a "dormant provision".

Related Constitutional Provisions

❖ Article 224A of the Indian Constitution allows the Chief Justice of a High Court to request retired HC judges to perform the duties of a judge again, with the permission of the President of India.
  ✓ Such appointees are entitled to allowances as determined by the President's order and have all the jurisdiction, powers and privileges of a Judge of that High Court.
❖ **Lok Prahari v Union of India (2021):** SC held that ad hoc judges can only be appointed when recommendations have not been made for less than 20% of the vacancies, after considering both the number of active judges and pending proposals for judge appointments.

Reasons for the Backlog of Cases in Indian Judiciary

❖ **Insufficient Judges:** India has one of the lowest judge-to-population ratios globally.
❖ **Increased Litigation:** The growing number of litigants and cases, coupled with the increasing population and socio-economic complexities, contributes to the rise in the number of cases.
❖ **Delays in the Justice System:** There are delays due to procedural inefficiencies, adjournments, and delays in filing of evidence, which further prolong case resolutions.
❖ **Lack of Infrastructure:** Many courts, especially in rural areas, are under-equipped and under-staffed, making it difficult to handle the growing number of cases efficiently.
❖ **Bureaucratic and Administrative Challenges:** The judicial process can sometimes be slowed down by inefficiencies in the system, including paperwork, administrative delays, and a lack of modernization in court processes.

How does it impact?

❖ **Delay in Justice:** The backlog results in long delays in cases, and justice is often delayed for years.
❖ **Increased No. of Undertrials:** The number of undertrials (accused awaiting trial) in prisons has increased, prisons are running at an over-capacity of 114%.
❖ **Increased Costs**: The delay in cases causes financial strain on the litigants and the government. It can also result in the erosion of public confidence in the judicial system.
❖ **Overburdened Judges:** Judges are often overburdened with cases, leading to burnout and further delays.

Efforts to Address the Issue

- ❖ **Judicial Reforms:** It includes increasing the number of judges, modernizing court infrastructure, and implementing e-courts and technology to speed up hearings.
- ❖ **Alternate Dispute Resolution (ADR):** ADR mechanisms like arbitration, mediation, and conciliation are being promoted to resolve disputes outside of the traditional court system.
- ❖ **E-Courts and Technology:** The E-Courts Project has been an important initiative to digitize court proceedings and allow online hearings. This helps in streamlining case management and reducing physical backlogs.
- ❖ **Fast Track Courts:** Special courts or fast-track courts have been set up to handle specific types of cases like corruption, crimes against women, and long-pending cases to expedite the process.

STATUS OF DEVOLUTION TO PANCHAYATS IN STATE 2024

Context: The Union Ministry of Panchayati Raj has released the report titled 'Status of Devolution to Panchayats in States – An Indicative Evidence-Based Ranking' (2024).

About

- ❖ The devolution index is an approach in assessing the implementation of 73rd and 74th Amendments and is prepared by the Indian Institute of Public Administration.
  - ✓ It evaluates the current state of power and resource devolution to Panchayati Raj Institutions across all States and Union Territories.
- ❖ States/UTs were ranked as per the six key dimensions of framework, functions, finances, functionaries, capacity enhancement, and accountability.

Need for the Assessment

- ❖ The mandatory constitutional provisions— such as regular Panchayat elections by state election commissions, reservations for SCs/STs and women, and the constitution of state finance commissions—have been implemented.
  - ✓ The devolution of functions, finances, and functionaries to Panchayats has been inconsistent across States.
  - ✓ The effective local governance cannot be achieved through these transfer mechanisms alone.
- ❖ It necessitates 'capacity enhancement' measures and 'accountability' to ensure fairness and transparency in Panchayat operations.

Major Findings

- ❖ Karnataka tops the overall Devolution Index (DI) ranking of the Panchayat Raj system among States, while Kerala and Tamil Nadu are in the second and third spot.
- ❖ Devolution has increased from 39.9% to 43.9% between the period 2013-14 to 2021-22.
- ❖ With the launch of the Rashtriya Gram Swaraj Abhiyan (RGSA), the capacity enhancement component of the Index during this period has increased from 44% to 54.6%.
- ❖ During this period, the component of the Index pertaining to functionaries has seen a substantial jump of more than 10% (from 39.6% to 50.9%).
- ❖ In the framework criterion, Kerala ranks first followed by Maharashtra, Karnataka, and Haryana.
- ❖ In the functional criterion, Tamil Nadu tops the list followed by Karnataka, Odisha, and Rajasthan.
- ❖ In the finances criterion, Karnataka has secured the top place followed by Kerala, Tamil Nadu, and Rajasthan.
- ❖ In the functionaries criterion, Gujarat ranks first followed by Tamil Nadu and Kerala.
- ❖ In the capacity building criterion, Telangana has secured the first spot followed by Tamil Nadu and Gujarat.

Challenges Identified in Report
- ❖ **Legal and Institutional Gaps:** Some states have not conducted regular panchayat elections.
- ❖ Limited Role in Policy Implementation: Panchayats have a nominal role in major centrally sponsored schemes (MGNREGA, PMAY, NHM, etc.).
- ❖ Some states perform significantly better due to strong governance structures and legal provisions, while others **Disparities Among States:** struggle due to poor implementation and political unwillingness.
- ❖ **Low Public Participation:** Gram Sabhas, which are essential for participatory governance, are often poorly attended and lack effectiveness.

Recommendations and Suggestions
- ❖ **Strengthening the Legal Framework:** Ensure regular and timely elections for panchayats.
  - ✓ Empower State Election Commissions (SECs) to function independently without state government interference.
- ❖ **Financial Empowerment:** Establish a Consolidated Fund for Local Government to provide direct and assured funding to panchayats.
  - ✓ Implement recommendations of the 16th Finance Commission to ensure panchayats receive an adequate share of GST revenues.
- ❖ **Enhancing Functional Autonomy:** Decentralize key service delivery functions to ensure panchayats play a leading role in rural development.
- ❖ **Promoting Accountability & Transparency:** Strengthen Gram Sabha participation by making them more accessible and effective.

SC STAYS LOKPAL ORDER GIVING ITSELF JURISDICTION OVER HC JUDGES

Context: The Supreme Court stayed a Lokpal order bringing High Court judges under its jurisdiction terming the interpretation "very disturbing".

About
- ❖ **Suo Motu Cognisance:** Supreme Court's Special Bench took suo motu cognisance of the Lokpal's recent order, which impacted judicial independence.
  - ✓ Lokpal's order declared High Court judges as 'public servants' under the Lokpal and Lokayuktas Act of 2013, allowing its jurisdiction over them.
- ❖ **Lokpal's Argument:** Lokpal's argument stemmed from High Courts being established by pre-constitutional British Acts, whereas the Supreme Court was formed by the Constitution.
  - ✓ **Exclusion of Supreme Court Judges:** Earlier, on January 3, Lokpal had ruled that it had no authority over Supreme Court judges.
  - ✓ **Lokpal's Jurisdiction:** The Lokpal based its decision on Section 14(1) of the 2013 Act, which includes judges of High Courts created by Acts of Parliament.
- ❖ **Supreme Court's Stance:** The Court emphasized that all judges are appointed under the Constitution, underscoring judicial independence.

Lokpal and Lokayuktas
- ❖ The Lokpal and Lokayuktas Act, 2013 came into effect in 2014.
- ❖ Purpose: Establish Lokpal at the Centre and Lokayuktas in states for investigating corruption in public servants.
- ❖ Concept: The concept was inspired by the Scandinavian Countries Ombudsman system.
  - ✓ The first Lokayukta was constituted in Maharashtra in 1971.
- ❖ **Appointment Process:** Members of Lokpal (and Lokayuktas) appointed by the President (Governor), based on recommendations from a Selection Committee.

- ❖ **Selection Committee:** Includes the PM (CM), Speaker of the Lower House, Leaders of Opposition, CJI (or a nominated judge), and an eminent jurist nominated by the President.
- ❖ **Composition of Lokpal:** One Chairperson (CJI/former SC judge/qualified non-judicial member), with up to 8 members.
  - ✓ 50% judicial members, and the non-judicial members need 25 years' experience in relevant fields.
- ❖ **Removal of Members:** Members can be removed by the President after an inquiry by the Supreme Court, which may be initiated based on the President's reference, a citizen's petition, or a petition signed by 100 MPs.
- ❖ **Jurisdiction of Lokpal:** Can inquire into offences under the Prevention of Corruption Act, 1988, committed by the PM (with safeguards), Union Ministers, MPs, officers (Group A-D), and certain private entities.
  - ✓ **PM's Inquiry:** Inquiry against the PM must be in-camera, approved by a 2/3 majority of the Lokpal, and cannot involve certain sensitive areas like national security.
  - ✓ The PM cannot be investigated related to international relations, external and internal security, public order, atomic energy and space.
- ❖ **Inquiry and Investigation:** Lokpal's inquiry wing must act within 60 days, and investigations to be completed within 6 months.
- ❖ **Jurisdiction of Lokayuktas:** Covers the CM, Ministers, MLAs, state government employees, and certain private entities (including religious institutions).
- ❖ **Penalties:** Penalizes false complaints with imprisonment up to 1 year and a fine of up to ₹1 lakh.
  - ✓ Increases penalties for public servants committing corruption (from 5 to 7 years) and criminal misconduct (from 7 to 10 years).

Challenges
- ❖ **Limited Jurisdiction:** The jurisdiction is often limited to certain categories of public servants or specific areas of governance, which restrict their ability to address all forms of corruption comprehensively.
- ❖ **Lack of Independence:** They often face political interference or pressure from the government, which hinder their autonomy.
- ❖ **Whistleblower Protection:** Whistleblowers and complainants who report corruption may face threats, harassment, or retaliation, which discourages them from coming forward with information.
- ❖ **Political Will:** Ultimately, the effectiveness depends on the political will of the government to combat corruption and strengthen accountability mechanisms.

Way Ahead
- ❖ Over the years, there have been calls for strengthening Lokpal and Lokayukts and expanding their jurisdiction to cover more public officials and institutions.
- ❖ By implementing the required measures, India can significantly enhance the effectiveness and credibility of Lokpal and Lokayuktas in combating corruption and promoting good governance.

THREE-LANGUAGE POLICY UNDER NEP 2020

Context: The Centre has withheld funds to Tamil Nadu under the Samagra Shiksha scheme due to the state's refusal to implement the National Education Policy (NEP) 2020 and its three-language formula.
- ❖ Tamil Nadu follows a two-language policy (Tamil and English) and has consistently opposed the introduction of Hindi, viewing it as a threat to its linguistic identity.

What is the Three Language Formula?
- ❖ NEP 1968 made Hindi compulsory across the nation, with specific language requirements for states.
  - ✓ Hindi-speaking states were to teach Hindi, English, and a modern Indian language (preferably a South Indian language).

✓ Non-Hindi-speaking states were expected to teach local language, Hindi, and English.
❖ NEP 2020 retains the three-language formula, introduced in the NEP of 1968.
  ✓ States, regions, and students can choose the three languages, as long as at least two are native to India.
  ✓ In addition to the state language, children must learn one other Indian language (not necessarily Hindi).
  ✓ Emphasizes bilingual teaching, focusing on the home language/mother tongue and English.
  ✓ Sanskrit is given special emphasis as an optional choice in the three-language formula.

Significance of the Three-Language Formula

❖ **Enhances Multilingual Proficiency:** Encourages students to learn multiple languages, improving cognitive skills and communication.
❖ **National Integration and Cultural Exchange:** Helps bridge the north-south linguistic divide by promoting Hindi in non-Hindi states and regional languages in Hindi-speaking states.
❖ **Increased Employment and Mobility Opportunities:** Knowledge of multiple languages expands career prospects and makes migration for jobs and higher education easier across different states.
❖ **Strengthens Regional Languages:** Ensure that regional languages continue to be actively used and preserved.

What are the Concerns?

❖ **Perceived Imposition of Hindi:** Non-Hindi-speaking states, especially Tamil Nadu, West Bengal, and Karnataka, oppose it as an attempt to impose Hindi.
❖ **Practical Implementation Challenges:** Many schools lack qualified teachers for teaching additional languages.
❖ **Burden on Students:** Learning an additional language may increase the academic load, particularly for students who struggle with language acquisition.
❖ **Potential Neglect of Foreign Languages**: Some argue that instead of a third Indian language, students should be encouraged to learn global languages like French, German, or Mandarin to improve international opportunities.

Way Ahead

❖ Constructive dialogue and a practical compromise between the Centre and State is the way forward.
❖ Education was transferred to the concurrent list during the Emergency, making it a shared responsibility.
❖ Disagreements over the third language should not hinder funding for Samagra Shiksha, a key education program.

INTERNET SHUTDOWNS IN INDIA

Context: According to a report by advocacy body 'Access Now', the number of Internet shutdowns are highest in 2024 globally.

About

❖ **Global trend:** 296 Internet shutdowns happened globally in 2024, and India's cumulative 84 curbs accounted for 28% of these.
❖ India had the second highest number of Internet shutdowns in 2024; Myanmar had one more disruption than India.
❖ India's total shutdowns in 2024 were fewer compared to the previous year.
❖ Shutdowns affected 16 States and Union Territories in India.
❖ **Most Shutdowns:** Manipur (21 shutdowns), Haryana (12), and Jammu & Kashmir (12).
❖ **Reasons for shutdowns:** 41 related to protests, 23 due to communal violence.

Legal Provisions Relating to Internet Shutdown
- ❖ **Grounds:** Indian States and Union Territories can impose an internet shutdown only in case of a "public emergency" or in the interest of "public safety", according to the Indian Telegraph Act.
  - ✓ However, the law does not define what qualifies as an emergency or safety issue.
- ❖ Till the year 2017, shutdowns were imposed largely under Section 144 of the Code of Criminal Procedure (CrPC).
  - ✓ Section 144 of CrPC gave the police and the District Magistrate the powers in order to prevent unlawful gathering of people and also to direct any person to abstain from a certain activity.
- ❖ In 2017, the law was amended and the Government promulgated the Temporary Suspension of Telecom Services (Public Emergency or Public Safety) Rule 2017.
  - ✓ These rules outline the procedures and conditions under which internet services can be temporarily suspended.
  - ✓ They require the review of orders by an advisory board within 5 days to ensure the legitimacy of the shutdown.

Arguments in Favour of Internet Shutdown by the Government
- ❖ **National Security:** The government suspend internet services as a temporary and targeted measure to prevent the spread of misinformation, coordinate unlawful activities, or address security threats.
- ❖ **Temporary and Targeted Measures:** These measures are not meant to infringe on long-term access but rather to address specific and immediate concerns.
- ❖ **Preventing Unrest and Violence:** Suspending online communication helps prevent the organization of protests, riots, or other forms of civil unrest.
- ❖ **Counteracting Fake News and Disinformation**: During times of crisis or conflict, false information circulating online can exacerbate tensions and contribute to misinformation.

Arguments Against the Internet Shutdown by the Government
- ❖ **Impact on Freedom of Expression:** Internet shutdowns infringe upon the freedom of expression guaranteed by the Indian Constitution.
- ❖ **Global Image and Investment:** Frequent internet shutdowns impact India's global image, raising concerns among investors and international partners.
- ❖ **Human Rights Concerns:** Internet shutdowns raise human rights concerns, including the right to access information, freedom of speech, and the right to peaceful assembly.
- ❖ **Economic Disruptions:** India has a rapidly growing digital economy, and internet shutdowns can lead to significant economic losses.
- ❖ **Educational Challenges:** With the increasing use of online platforms for education, internet shutdowns severely affect students' access to learning resources.
- ❖ **Lack of Transparency:** The government needs to provide clear justifications for such actions and communicate transparently about the duration and reasons for the shutdown.

Conclusion
- ❖ In a democracy, governments need to provide a rationale for disrupting the internet services in a periodic manner.
- ❖ Indiscriminate shutdowns have high social and economic costs and are often ineffective.
- ❖ For better internet governance the Indian civil society needs to push for a transparent and accountable system.

GOVERNANCE

JAL JEEVAN MISSION (JJM) EXTENDED TILL 2028

Context: Union Finance Minister Nirmala Sitharaman announced an extension of the Jal Jeevan Mission (JJM) till 2028, with an outlay of Rs 67,000 crore in the Union Budget 2025-26.

However, the scheme saw a massive cut in allocation at the revised estimate (RE) stage during the current fiscal year 2024-25.

About
- ❖ The Jal Jeevan Mission (JJM), launched in 2019, aimed to provide Functional Household Tap Connections (FHTC), ensuring 55 litres per capita per day of safe drinking water to all rural households by 2024. However, due to implementation challenges, the deadline has now been extended to 2028.
- ❖ The focus now shifts towards quality infrastructure, sustainable operation, and community-led management under the principle of "Jan Bhagidari" (people's participation).

Key Features of JJM
- ❖ **Objectives & Implementation Strategy:**
  - ✓ **Universal Piped Water Access**: Ensuring every rural household receives tap water by 2028.
  - ✓ **Community Involvement:** Village Water & Sanitation Committees (VWSCs) or Pani Samitis play a key role, with 50% mandatory participation from women.
  - ✓ **State Participation:** States/UTs sign agreements to ensure sustainability and service quality.
- ❖ **Administrative Framework:**
  - ✓ Nodal Ministry: Department of Drinking Water and Sanitation, Ministry of Jal Shakti.
  - ✓ Background: JJM subsumed the National Rural Drinking Water Programme (NRDWP).
  - ✓ **Funding Pattern:**
    - ➢ 90:10 for Himalayan and North-Eastern States.
    - ➢ 100% Central Funding for Union Territories.
    - ➢ 50:50 for other States.

Current Progress & Budgetary Allocations
- ❖ **Achievements Since 2019:**
  - ✓ 80% of rural households now have piped water access, up from 15% in 2019.
  - ✓ Over 12 crore families have gained access to drinking water.
  - ✓ States with 100% Coverage: Arunachal Pradesh, Goa, Haryana, Himachal Pradesh, Gujarat, Punjab, Telangana, and Mizoram.
  - ✓ UTs with 100% Coverage: Andaman & Nicobar Islands, Dadra & Nagar Haveli & Daman & Diu, and Puducherry.

Challenges in Implementation
- ❖ **Infrastructure & Connectivity Issues:**
  - ✓ Initial "Low-Hanging Fruit" Approach: Coverage was quickly expanded in regions with existing infrastructure, but expanding to remote villages has proven difficult.
  - ✓ Reservoir-to-Village Pipelines: Many villages require water transportation from distant reservoirs, increasing costs and logistical complexity.
- ❖ **Cost Overruns Due to External Factors:**
  - ✓ **COVID-19 Impact**: Disruptions in supply chains and labor availability.
  - ✓ **Russia-Ukraine War:** Equipment and material costs surged, straining budgets.
- ❖ **Implementation Bottlenecks:**
  - ✓ **Underutilization of Funds:** Despite budget allocations, ₹50,000 crore remained unspent in 2024-25, highlighting execution inefficiencies.

Road Ahead

❖ **Strengthening Last-Mile Connectivity:** Prioritizing infrastructure expansion in remote areas.
   ✓ Upgrading reservoir pumping systems and ensuring adequate groundwater sources.
❖ **Improving Budget Utilization:** Enhancing state-level execution capacity to ensure timely use of allocated funds.
   ✓ Flexible funding mechanisms to accommodate price fluctuations.
❖ **Ensuring Transparency & Accountability:** Implementing independent verification mechanisms to validate actual water supply in rural households.
   ✓ Leveraging technology (IoT-based monitoring, GIS mapping) for real-time tracking.
❖ **State & Centre Coordination:** Ensuring states fulfill their funding responsibilities to avoid delays.
   ✓ Stronger agreements between the Centre and states for smooth implementation.
❖ **Community Engagement & Women's Participation:** Expanding "Jan Bhagidari" (people's participation) to ensure local ownership of water management.
   ✓ Increasing women's leadership roles in Pani Samitis.

ELIMINATING ELITISM IN MENTAL HEALTH

Context: The Union Budget 2025-26 has made significant strides in addressing mental health, allocating ₹99,858.56 crore to the Ministry of Health and Family Welfare (MoH&FW) underscores the government's recognition of health as a critical pillar of national development.

About the Mental Health

❖ According to the World Health Organization (WHO), mental health is defined as a state of well-being in which individuals realize their own potential, can cope with the normal stresses of life, work productively, and make meaningful contributions to their communities.

Potential Reasons Mental Health Disorders

❖ Exposure to unfavorable social, economic, geopolitical and environmental circumstances – including poverty, violence, inequality and environmental deprivation.
❖ Early adverse life experiences, such as trauma or a history of abuse (for example, child abuse, sexual assault, witnessing violence, etc.)
❖ Use of alcohol or drugs, having feelings of loneliness or isolation, etc.
❖ Dysfunctional family relationships and lack of support systems can negatively impact mental health.

Burden of Mental Health Disorders

❖ **Global:** In 2019, an estimated 970 million people were living with a mental disorder, with anxiety and depression being the most common.
   ✓ These conditions can lead to significant distress, impairment in functioning, and an increased risk of self-harm.
   ✓ The economic consequences of mental health disorders are significant, with productivity losses often outweighing the direct costs of care.
❖ **India:**
   ✓ 15% of India's adult population suffered from mental disorder (national study);
   ✓ Mental Morbidity: Higher in urban metro regions (13.5%) as compared to rural areas (6.9%) and urban non-metro areas (4.3%).

Challenges in Mental Health Care

❖ **Socio-Economic Factors**: Socio-economic conditions such as poverty, unemployment, and food security impact the mental health conditions.
   ✓ **Social Discrimination:** Stigma, discrimination, and human rights violations further exacerbate the challenges faced by individuals with mental health conditions.

✓ **Budgetary Allocations:** National Mental Health Programme (NMHP) has faced budgetary ambiguities. In recent years, its funding has been merged under broader health programs, making it difficult to determine the exact allocation for NMHP.

❖ **Treatment Gap:** 70% to 92%; More pronounced among blue-collar workers, who often face demanding jobs, unsafe work environments, and a lack of adequate legislative and policy protections.

✓ It is particularly wide in low- and middle-income countries, where mental health services are often under-resourced and of poor quality.

❖ **Limited Scope of Existing Policies & Regulations:** The Occupational Safety, Health and Working Conditions Code (2020), for instance, focuses primarily on physical safety, excluding mental well-being and preventive measures.

✓ Similarly, the Code on Social Security (2020) does not recognize mental strain as a compensable injury, further exacerbating the disparity in mental health care.

✓ Mental Healthcare Act of 2017 enshrines access to mental health as a statutory right, over 11 crore people in India still suffer from mental health disorders, with 80% not seeking help.

Steps Towards Inclusive Mental Health Care

❖ **Policy Reforms:** Governments need to revise existing policies to include mental health as a critical component of occupational safety and health.

✓ It includes recognizing mental strain as a compensable injury and providing adequate support for mental health care.

❖ **Awareness and Education:** Public awareness campaigns and educational programs can help reduce the stigma associated with mental health issues and encourage individuals to seek help when needed.

❖ **Community-Based Programs:** Implementing community-based mental health programs can ensure that mental health services are accessible to underserved populations.

✓ These programs can provide early detection, treatment, and support for individuals with mental health disorders.

❖ **Training and Capacity Building:** Training healthcare professionals and community workers in mental health care can improve the quality and accessibility of mental health services.

✓ It includes providing training to general physicians, health workers, and other frontline workers to identify and address mental health issues.

❖ **Collaboration and Partnerships:** Collaboration between government agencies, non-governmental organizations, and private sector entities can help create a comprehensive and inclusive mental health care system.

✓ These partnerships can leverage resources and expertise to address the mental health needs of diverse populations.

Key Initiatives

❖ **WHO's Comprehensive Mental Health Action Plan (2013-2030):** It aims to improve mental health by strengthening governance, providing community-based care, implementing promotion and prevention strategies, and strengthening information systems, evidence, and research.

✓ It emphasizes the importance of integrating mental health into primary health care to ensure that individuals receive the care they need.

❖ **Role of Community-Based Programs:** These programs can provide early detection, treatment, and support for individuals with mental health disorders, particularly in underserved populations.

✓ By engaging with communities and raising awareness about mental health, these programs can help reduce stigma and encourage individuals to seek help when needed.

Steps Taken by the Government of India
- ❖ **National Mental Health Programme (NMHP):** India has implemented various initiatives to improve access to mental health care under it.
  - ✓ These include the establishment of 25 Centres of Excellence to increase the intake of students in mental health specialties and the launch of the National Tele Mental Health Programme to provide quality mental health counseling and care services.
- ❖ The District Mental Health Programme (component of the NMHP) has been sanctioned for implementation in 767 districts, providing training to specialist and non-specialist cadres and offering outpatient services, assessment, counseling, and continuing care.
- ❖ **Comprehensive Primary Health Care:** Upgradation of more than 1.73 lakh Sub Health Centres (SHCs) and Primary Health Centres (PHCs) to Ayushman Arogya Mandirs, where mental health services have been added.
- ❖ **National Tele Mental Health Programme (NTMHP):** It aims to improve access to quality mental health counselling and care. A total of 53 Tele MANAS Cells are operational across 36 states /union territories.
- ❖ **Manodarpan Initiative:** An initiative under Atmanirbhar Bharat Abhiyan, aims to provide psycho-social support to students for their mental health and well-being.
- ❖ **Kiran Helpline:** The helpline is a step towards suicide prevention, and can help with support and crisis management.

Conclusion and Way Forward
- ❖ The Union Budget 2025-26 represents a significant step towards improving mental health care in India.
- ❖ By increasing funding for key programs and institutions, the government has demonstrated its commitment to addressing mental health challenges.
- ❖ However, continued efforts are needed to ensure transparency in funding allocations and to address the socio-economic factors that contribute to mental health issues.

DECADAL CENSUS DELAY: IMPLICATIONS FOR GOVERNANCE

Context: The decadal Census exercise, initially scheduled for 2020-21, has been indefinitely delayed. As a result, several key reports on vital statistics have not been released for the past five years.

Historical Context and Initial Delays
- ❖ The Census (2021) was postponed due to the pandemic, with the government citing health concerns and logistical challenges.
- ❖ **The exercise was divided into two phases:**
  - ✓ The house listing phase from April to September 2020, and
  - ✓ The population enumeration phase from February 2021.
- ❖ Both phases were delayed, and no new schedule has been announced since.

Unreleased Reports
- ❖ The 'Vital Statistics of India Based on the Civil Registration System' and 'The Report on Medical Certification of Cause of Death' were last published for the year 2020.
- ❖ Additionally, the annual 'Crime in India' report by the National Crime Record Bureau (NCRB) for the year 2023 is also pending.

State-wise Reports
- ❖ While some States and Union Territories, such as Himachal Pradesh, Karnataka, Delhi, Chandigarh, Mizoram, Goa, and Arunachal Pradesh, have published reports till 2022, others like Kerala and Mizoram have more recent data.
- ❖ However, the lack of updated national reports hampers comprehensive planning and policy-making.

Importance of Vital Statistics

- ❖ Vital statistics are crucial for planning, monitoring, and evaluating various programs related to primary healthcare, family planning, maternal and child health, and education.
- ❖ Census data is crucial for demarcating constituencies, planning key welfare schemes, and understanding migration patterns.
- ❖ These reports provide invaluable data on the occurrence and characteristics of vital events such as births, deaths, and stillbirths.

Reasons for Continued Delay

- ❖ **COVID-19 Pandemic:** The initial delay was due to the COVID-19 pandemic. The government cited health concerns and logistical challenges as reasons for postponing the Census.
  - ✓ Field activities were suspended to prevent the spread of the virus.
- ❖ **Budgetary Constraints:** The Union Budget for 2025-26 allocated a mere ₹574.80 crore for the Census, a significant reduction from the ₹8,754.23 crore approved in 2019.
- ❖ This reduced budget has raised questions about the feasibility of conducting the Census this year.
- ❖ **Political Sensitivities:** Debates over caste-based census inclusion and regional demands for separate statehood have complicated preparations.
- ❖ **Administrative Readiness:** Census officials require extensive training, and their mobilization across states takes months of preparation.
  - ✓ These include the need to update the National Population Register (NPR) and the complexities involved in conducting a large-scale exercise.
- ❖ **State Elections:** Continuous state elections (West Bengal, Uttar Pradesh, Gujarat, etc.) have diverted administrative focus from census activities.

Implications of the Census Delay

- ❖ **Impact on Social Policies and Welfare Schemes:** Reports on births and deaths have not been released for the past five years, affecting planning and evaluation of healthcare programs.
  - ✓ Additionally, reservations for scheduled castes and tribes, as well as food security entitlements, have been impacted.
  - ✓ For instance, the National Food Security Act, 2013, aims to cover 67% of India's population for subsidized food grains. However, due to outdated 2011 Census data, approximately 10 crore (100 million) individuals may be excluded from these benefits.
- ❖ **Statistical Accuracy:** Many national surveys and studies rely on Census data as a foundational reference.
  - ✓ The delay compromises the accuracy of these surveys, leading to potential misrepresentations in data related to employment, health, and other critical sectors.
- ❖ **Imbalances in Representation & Resource Allocation:** The postponement affects administrative functions such as the delimitation of constituencies, which depends on up-to-date population data.
- ❖ **Economic Planning:** Accurate economic planning hinges on current demographic data. The absence of recent Census information hampers effective policy formulation and implementation, potentially affecting economic growth and development.
- ❖ **Private Sector Involvement:** Businesses, especially in sectors like insurance and market research, depend on accurate Census data to assess market potential and plan strategies.
  - ✓ The delay forces companies to rely on outdated information, potentially leading to suboptimal business decisions and increased costs for conducting independent surveys.

Way Forward

- ❖ **Immediate Rescheduling:** The government must announce a definitive timeline for conducting the census, ensuring minimal disruption to governance.
- ❖ **Interim Data Collection:** Until the census is completed, the government can use Aadhaar, National Sample Survey Office (NSSO) surveys, and electoral rolls to estimate population changes.

- ✓ **Digital Registration:** In 2023, the Centre enacted 'The Registration of Births and Deaths (Amendment) Act', mandating that all births and deaths occurring from October 1, 2023, be digitally registered through the 'Central Portal crsorgi.gov.in'. It aims to provide real-time data and improve the accuracy of vital statistics.
- ❖ **Digital Census and Self-Enumeration:** When the Census is finally conducted, it will pioneer a digital approach, allowing citizens to self-enumerate through a portal.
- ❖ It aims to streamline the process and improve data accuracy.
- ❖ **Use of Technology:** Expediting digital data collection, using AI and machine learning for faster enumeration, and integrating real-time updates can improve efficiency.
- ❖ **State-Level Initiatives:** States can conduct independent surveys, especially in areas like migration, urban growth, and social welfare to mitigate data gaps.

Conclusion

- ❖ The delay in conducting the Census and releasing vital statistics reports underscores the need for timely and accurate data to inform public health and policy decisions.
- ❖ Ensuring the completion of the Census and the publication of vital statistics is essential for addressing the country's health and demographic challenges.

9 YEARS OF PRADHAN MANTRI FASAL BIMA YOJANA (PMFBY)

Context: The Pradhan Mantri Fasal Bima Yojana (PMFBY) recently celebrated its ninth anniversary, marking nearly a decade of empowering Indian farmers with comprehensive crop insurance.

About PMFBY

- ❖ Launch: 2016 by the Ministry of Agriculture & Farmers Welfare.
- ❖ Coverage: All farmers, including sharecroppers and tenant farmers, growing notified crops in designated areas.
- ❖ **Crops Covered:**
  - ✓ Food Crops (Cereals, Millets & Pulses)
  - ✓ Oilseeds
  - ✓ Annual Commercial & Horticultural Crops

Risks Covered

- ❖ **Yield Losses (Standing Crops):** Losses due to non-preventable risks like drought, flood, pests, and diseases.
- ❖ **Prevented Sowing:** Compensation when farmers cannot sow due to adverse weather conditions.
- ❖ **Post-Harvest Losses:** Coverage for crop losses within 14 days of harvesting due to natural calamities.
- ❖ **Localized Calamities:** Damage due to hailstorms, landslides, cloudbursts, etc.

Implementation & Coverage Growth (2016–2024)

- ❖ **Farmer Enrollment:** Over 40 crore farmer applications registered.
- ❖ **Land Coverage:** More than 30 crore hectares of farmland insured.
- ❖ Affordable Premium & High Claims Settled:
  - ✓ Farmers paid over ₹29,000 crore as premiums.
  - ✓ Over ₹1.50 lakh crore in claims disbursed, proving it to be a pro-farmer initiative.
- ❖ **Customized Insurance Plans:** State-specific schemes and cluster-based models enhance efficiency.
- ❖ **Inclusive Growth:** More than 70% of beneficiaries are small and marginal farmers.
- ❖ **Climate Risk Mitigation:** Addresses challenges like erratic monsoons, droughts, floods, and unseasonal rains.

Technological Advancements

❖ **AI & Geo tagging:** Enhance accuracy in crop loss assessment by enabling precise damage verification and yield estimation.
❖ **CCE-Agri App & YES-TECH:** Mobile-based tools to record Crop Cutting Experiments (CCEs) and estimate yields.
❖ **National Crop Insurance Portal (NCIP):** Centralized platform for real-time monitoring and claims processing.
❖ **Digital Claim Settlement:** Faster payouts through mobile apps and online platforms.

Major Challenges
❖ **Delays in Claim Settlement:** Bureaucratic hurdles and disputes between insurance companies and state governments slow payouts.
❖ **State Withdrawals & Implementation Issues:** States like Bihar, West Bengal, Gujarat, and Andhra Pradesh withdrew due to financial concerns over premium subsidies.
❖ **Low Awareness & Farmer Participation:** Many farmers, especially in remote areas, remain unaware of the scheme's benefits.
❖ **Data & Technology Gaps:** Lack of real-time weather data and delays in crop loss assessment impact claim processing.

Recent Reforms & Future Prospects
❖ **PMFBY 2.0 – Restructured Guidelines (2020-21):**
    ✓ Voluntary Enrollment: Since 2020, participation has been made voluntary.
    ✓ State Flexibility: States can customize insurance products to meet regional agricultural needs.
❖ **Alignment with Climate Resilience Policies:**
    ✓ Linked with National Adaptation Fund for Climate Change (NAFCC) to promote climate-resilient farming.
❖ **Restructured Weather-Based Crop Insurance Scheme (RWBCIS):**
    ✓ A weather index-based insurance scheme introduced alongside PMFBY.
    ✓ Difference from PMFBY: RWBCIS calculates claims based on weather parameters rather than actual yield loss.

Way Forward
❖ **Digitization:** Expanding technology use for faster claim settlements.
❖ **State Re-Engagement:** Encouraging states that have withdrawn to rejoin.
❖ **Private Sector Involvement:** Incentivizing private insurers to offer region-specific solutions.
❖ **Disaster Risk Reduction**: Strengthening proactive risk mitigation strategies.

RIGHT TO INFORMATION (RTI) AS 'RIGHT TO DENY INFORMATION'

Context: The Right to Information (RTI) Act was hailed as a revolutionary step towards transparency and accountability in governance.
❖ However, over the years, the effectiveness of the RTI Act has been undermined, leading to concerns that it has transformed from a tool for transparency into a 'right to deny information'.

About the Right to Information (RTI) Act, 2005
❖ The RTI Act recognized citizens as the rightful owners of government information and aimed to restore the concept of 'swaraj' (self-rule).
❖ It empowers citizens who seek information from public authorities, ensuring transparency and accountability in governance.
❖ It provides a legal framework for individuals to access information related to government decisions, policies, and operations.

Key Features of the RTI Act
- ❖ **Right to Access Information:** Any citizen of India can request information from a public authority, which is obligated to provide a response within 30 days (or 48 hours in cases concerning life and liberty).
- ❖ **Applicability:** The Act applies to all levels of government—central, state, and local bodies, including government-funded NGOs and institutions.
- ❖ **Public Information Officers (PIOs):** Every government department must appoint PIOs to handle RTI requests and provide information.
- ❖ **Appeal Mechanism:** If an applicant is not satisfied with the response, they can appeal to the First Appellate Authority and then to the Central or State Information Commission.
- ❖ **Penalties:** Officials failing to provide information within the stipulated time or providing incorrect details can be fined up to ₹25,000.

Denial of Information Under RTI
- ❖ The RTI Act mandates that government agencies must disclose information unless it falls under specific exemptions listed in Section 8 & Section 9 of the Act. While these exemptions are necessary, they have increasingly been misused to withhold information that should otherwise be made public. These include:
  - ✓ **National Security & Sovereignty (Section 8(1)(a)):** Information that could affect India's national security, strategic interests, or relations with foreign countries.
  - ✓ **Personal Data & Privacy (Section 8(1)(j)):** Information that invades an individual's privacy without serving public interest.
  - ✓ **Parliamentary Privilege & Cabinet Papers (Section 8(1)(i)):** Internal deliberations, discussions, and unpublished cabinet papers.
  - ✓ **Commercial Confidence & Trade Secrets (Section 8(1)(d)):** Information that affects competitive business interests.
  - ✓ **Ongoing Investigations & Law Enforcement (Section 8(1)(h)):** Information that could obstruct investigations or trials.

Reality: How RTI Is Denied?
- ❖ **Vague and Arbitrary Exemptions:** Government officials often misuse Section 8 to reject applications without clear justification.
  - ✓ Information unrelated to security or trade secrets is still denied under vague excuses.
- ❖ **Delays & Resistance from Bureaucracy:** RTI Act mandates a 30-day response time, but authorities often delay responses indefinitely.
  - ✓ Many information commissioners, often retired bureaucrats, were reluctant to empower citizens and viewed their roles as post-retirement sinecures.
  - ✓ Some Public Information Officers (PIOs) ignore applications or provide incomplete information.
- ❖ **Weak Enforcement of Penal Provisions:** The RTI Act includes provisions for penalizing officers who deny information.
  - ✓ However, many commissioners hesitate to impose penalties, leading to a lack of accountability.
- ❖ **Misuse of 'Third Party' Clause:** Authorities reject RTI requests citing third-party confidentiality, even when public interest is involved.
- ❖ **Amendment Weakening RTI Act (2019):** It gave the government power to fix the tenure and salary of the CIC and SICs, reducing their independence.
- ❖ **Increasing Rejection by the PMO & Key Ministries**: Reports suggest that the Prime Minister's Office (PMO) and other critical ministries have increased RTI rejections in recent years.
- ❖ **Harassment & Intimidation of RTI Activists**: Over 100 RTI activists have been attacked or killed for exposing corruption, discouraging citizens from using RTI.

Case Studies: How Information Is Denied?

- ❖ **Electoral Bonds & Political Funding:** RTI applications seeking details on electoral bonds were denied under national interest, despite concerns over political funding opacity.
- ❖ **COVID-19 Data:** During the pandemic, RTIs requesting details about vaccine procurement, pricing, and expenditure were rejected under commercial confidence.
- ❖ **Judiciary & RTI:** The Supreme Court initially resisted coming under RTI and later selectively disclosed information.
    - ✓ The Supreme Court's 2011 ruling emphasized that Section 8 exemptions should not undermine the right to information, but it also warned against using RTI as a tool for obstruction or intimidation.
- ❖ **Pegasus Spyware Investigation:** RTI requests about the use of Pegasus spyware for surveillance were denied under national security claims.

Way Forward: Strengthening RTI
- ❖ **Stricter Penalties for Wrongful Denial:** Officials who misuse exemptions should face penalties.
- ❖ **Time-Bound Appeals & Accountability**: Cases should be resolved within 60 days to prevent indefinite delays.
- ❖ **Whistleblower Protection:** RTI activists should have legal protection against threats.
- ❖ **Independent RTI Bodies:** Information Commissioners should be free from political control.
- ❖ **Public Awareness & Digital RTI:** More citizens should be trained to file RTIs effectively.

Conclusion
- ❖ The transformation of the RTI Act from a tool for transparency to a "right to deny information" is a concerning development.
- ❖ To restore the effectiveness of the RTI Act, it is essential to address the challenges of bureaucratic resistance, delays, and weak enforcement.
- ❖ Strengthening the RTI mechanism and ensuring timely and accurate responses to information requests will be crucial for promoting transparency and accountability in governance.

INTERNATIONAL

US WITHDRAWAL FROM UNHRC, WHO, AND OTHER INTERNATIONAL FORUMS

Context: The United States has recently announced its withdrawal from several key international organizations, including the UNHRC, the WHO, and other international forums.

Key Instances of U.S. Withdrawal from International Forums

❖ **United Nations Human Rights Council (UNHRC):** US cited the UNHRC's 'chronic bias against Israel' and its failure to address genuine human rights concerns.

❖ It was part of a broader pattern of the Trump administration stepping back from international agreements and organizations under its 'America First' policy.

❖ It accused the UNHRC of 'obsessively demonizing the one democracy in the Middle East' and propagating antisemitism.

❖ The US prohibits any future funding for the United Nations Relief and Works Agency (UNRWA), which provides aid to millions of Palestinians.

❖ It is important to note that the UNHRC has passed over 100 condemnatory resolutions against Israel, which amounts to more than 20% of all resolutions passed by the council.

❖ World Health Organization (WHO): Reasons behind withdrawal are WHO's handling of the COVID-19 pandemic and its perceived bias towards China.

  ✓ The US, being the largest financial contributor to the WHO, argued that the organization needed to be reformed to better serve its member states.

  ✓ It could cost WHO $130 million in annual funds and hinder global public health response.

Other International Forums

❖ The US has reviewed its involvement in other international organizations, such as UNESCO and the Paris Climate Accord, citing 'wild disparities' in financial contributions among member countries.

  ✓ Earlier, US left UNESCO in 2017, citing an alleged anti-Israel bias within the organization. It echoed a similar withdrawal in 1984 under President Ronald Reagan, which was reversed in 2003.

❖ The US withdrew from the Trans-Pacific Partnership (TPP) in 2017, citing the need to protect American jobs and industries.

  ✓ The remaining countries proceeded with a revised version called the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP).

Implications of U.S. Withdrawal from International Forums

❖ **Weakening of Global Multilateralism:** The repeated exits from key international organizations have raised concerns about the effectiveness of multilateralism. U.S. disengagement often leads to leadership vacuums that other nations, particularly China, have sought to fill.

❖ **Geopolitical Power Shifts:** China and Russia have leveraged U.S. withdrawals to strengthen their influence in global governance.

  ✓ For instance, China has expanded its role within WHO, UNHRC, and trade agreements following US exits.

❖ **Damage to Global Trust and Alliances:** Frequent policy reversals, such as the U.S. leaving and then rejoining international agreements (e.g., Paris Climate Accord, WHO, and UNESCO), create uncertainty among allies and undermine trust in American commitments.

❖ **Impact on Global Trade and Climate Policies:** Withdrawal from agreements like the TPP and the Paris Climate Accord has had economic and environmental consequences.

  ✓ The U.S. lost trade opportunities while other nations advanced regional agreements without it.

❖ **Impact on UNRWA:** UNRWA provides health, education, and aid services to millions of Palestinians in Gaza, the West Bank, Syria, Lebanon, and Jordan.

- ✓ The US had been the largest donor to UNRWA, contributing between $300 million and $400 million annually.

Reforms Needed in International Forums Amid US Withdrawal

- ❖ **Strengthening Multilateralism:** Organizations like WHO, WTO, and UN bodies suffer from funding shortfalls when major contributors (like the US) withdraw.
  - ✓ Reforming financial structures—such as mandatory contributions from all members—can reduce dependency on a few nations.
- ❖ **Expanding Representation in Global Decision-Making:** Calls for expanding permanent UNSC membership (that remain dominated by post-WWII power structures) to include emerging powers like India, Brazil, and South Africa.
- ❖ **Revitalizing Climate Agreements:** Strengthening compliance mechanisms and creating penalties for withdrawal could ensure sustained participation.

Conclusion

- ❖ As the US withdraws from key international forums, it is imperative to implement reforms that address transparency, representation, efficiency, and financial sustainability.
- ❖ These reforms will help ensure that international organizations remain effective in promoting global cooperation and addressing the world's most pressing challenges.

INDIA-UK DEFENCE COLLABORATION

Context: India and the United Kingdom have signed multiple agreements aimed at enhancing bilateral defence collaboration.

Key Agreements and Collaborations

- ❖ Defence Partnership–India (DP-I): Establishment of a dedicated programme office within the UK's Ministry of Defence to serve as a one-stop hub for bilateral defence collaboration.
  - ✓ Aims to facilitate deeper cooperation and support economic growth in both countries.
- ❖ Laser Beam Riding MANPADs (LBRM): India and the UK signed a contract for the delivery of Laser Beam Riding Man Portable Air Defence Systems (MANPADS).
  - ✓ The initial supply of High Velocity Missiles (STARStreak) and launchers is set for delivery this year.
- ❖ **Lightweight Multirole Missiles (LMM):** Focuses on integrating Indian and British industries into the global defence supply chain.
- ❖ **Advanced Short-Range Air-to-Air Missile (ASRAAM):** Collaboration to establish an ASRAAM assembly and testing facility in Hyderabad.
- ❖ **Integrated Full Electric Propulsion (IFEP) System:** A Statement of Intent was signed to design and develop an Integrated Full Electric Propulsion (IFEP) system for India's next-generation Landing Platform Dock (LPD) fleet.
  - ✓ Both nations are working to establish India's first maritime Land-Based Testing Facility, with a goal to deliver the LPD in water by 2030.

Key Concerns

- ❖ India-UK defence cooperation has often been derailed by the 'three-I' challenge posed by Indian rules and regulations pertaining to:
  - ✓ Foreign Investment;
  - ✓ Intellectual Property Rights;
  - ✓ Indigenous Content Requirements.

Strategic Significance

❖ These agreements represent a significant step forward in India-U.K. defence cooperation, particularly in critical areas such as air defence and maritime propulsion.

❖ It aligns with India's Atmanirbhar Bharat (self-reliant India) vision, promoting indigenous defence capabilities and technological advancements.

INDIA-RUSSIA DEFENCE COOPERATIONS

Context: Recently, Russia's state-owned defense export company (Rosoboronexport) proposed a partnership with India on the Russian fifth-generation fighter aircraft (FGFA), the Su-57E.

India-Russia Defence cooperations

❖ Defence cooperation is a key aspect of the India-Russia strategic partnership, guided by the Agreement on the Programme for Military Technical Cooperation.

❖ The India-Russia defense cooperation also includes the supply and development of military equipment and technology, as well as agreements like the military technical cooperation and a Navy-to-Navy cooperation agreement.

Cooperation Frameworks

❖ Agreement for 2021-2031 signed during the India-Russia 2+2 Dialogue in 2021
  ✓ It aims to strengthen military cooperation in R&D, production, and after-sales support of armaments and military equipment.

❖ **IRIGC-MTC :** India and Russia have a structured approach for military cooperation, led by the India-Russia Inter-Governmental Commission on Military Technical Cooperation (IRIGC-MTC), established in 2000.

❖ **Annual Defence Minister Meetings:** The Defence Ministers meet annually to review ongoing projects and discuss military cooperation.

❖ **Bilateral Projects:** It includes the supply of S-400, licensed production of T-90 tanks and Su-30 MKI, supply of MiG-29 and Kamov helicopters, INS Vikramaditya (formerly Admiral Gorshkov), production of Ak-203 rifles in India and BrahMos missiles.

❖ **Joint Exercises – "INDRA":** Tri-Service joint exercises, including the Indra exercise, have been held.
  ✓ India also participated in the International Army Games and Ex Vostok in Russia.
  ✓ Exercise Aviaindra, a Biennial Air Force level exercise between Indian and the Russian Federation.

❖ India and Russia had previously signed a joint development deal in 2010 for the fifth-generation fighter aircraft (FGFA)program, but India withdrew in 2018 due to issues with technology transfer.

Latest Developments

❖ **Su-57E in India:** Russia's state-owned defense export company offered to localize production of the Su-57E in India, potentially starting as early as 2025, at the Hindustan Aeronautics Limited (HAL) plant.
  ✓ It would provide advanced fifth-generation technologies, including engines, Active Electronically Scanned Array (AESA) radars, optics, AI elements, software communication, and air weapons.
  ✓ These technologies could benefit India's Advanced Medium Combat Aircraft (AMCA) program.

❖ Additionally, Russia proposed long-term cooperation with India in upgrading aircraft capabilities, building on 60 years of successful collaboration in aircraft production.

❖ Russia is considering a logistics support agreement similar to India's Logistics Exchange Memorandum of Agreement (LEMOA) with the US.
  ✓ This would allow mutual use of military bases for refuelling, repairs, and resupply.

❖ Russia recently authorized the signing of the Reciprocal Exchange of Logistics Agreement (RELOS), which will facilitate military exchanges, exercises, training, port calls, and humanitarian assistance operations.

Importance

- ❖ India views Russia as a long-time ally, particularly from the Cold War era, with significant cooperation in defence, oil, nuclear energy, and space exploration.
- ❖ India-Russia defence relations are robust which highlight the compatibility of their military hardware, which India largely procures from Russia.
- ❖ The potential logistics agreement holds strategic significance for India, especially in the Arctic region, as it would enhance India's presence in this geopolitically critical area with access to Russian military facilities.

Issues and Concerns

- ❖ **Reliance on import :** India is trying to develop into a defence manufacturing hub.
  - ✓ But it lacks a strong industrial base for military equipment.
- ❖ Russia -Ukraine War has raised concerns about Russia's ability to meet timelines for spares and hardware.
  - ✓ Western sanctions on Russia have raised concerns about delays in military deliveries
- ❖ **China Factor :** The partnership has become complicated due to Russia's growing ties with China, especially in light of the ongoing war in Ukraine, which is seen as a challenge for India.

Conclusion

- ❖ India-Russia military technical cooperation has evolved over time from a buyer-seller framework to one involving joint research and development, co-development and joint production of advanced defence technology and systems.
- ❖ Therefore to maintain their partnership ,India and Russia must address emerging issues.
  - ✓ This collaboration will continue to play a key role in shaping regional and global security.

INDIA-SRI LANKA FISHERIES DISPUTE

Context: The maritime boundary between India and Sri Lanka, particularly in the Palk Strait, has been a long-standing contentious issue. Allegations of illegal fishing, destructive fishing practices, and frequent arrests of Indian fishermen by the Sri Lankan Navy have fueled diplomatic tensions between the two nations.

Historical Context

- ❖ India and Sri Lanka have defined their maritime boundary through a series of agreements, focusing on territorial waters, exclusive economic zones (EEZ), and fishing rights:
  - ✓ 1974 Agreement: India recognized Sri Lanka's sovereignty over Katchatheevu, an uninhabited island in the Palk Strait.
  - ✓ 1976 Agreement: Extended the maritime boundary and restricted fishing rights to the respective countries.

Key Issues

- ❖ **Recurrent Arrests & Seizures:**
  - ✓ Indian fishermen, especially from Tamil Nadu, frequently cross the International Maritime Boundary Line (IMBL) in search of fish due to depleting fish stocks in Indian waters.
  - ✓ Sri Lankan authorities have responded with arrests, boat confiscations, and legal actions, straining diplomatic relations.
- ❖ **Violation of the International Maritime Boundary Line (IMBL):**
  - ✓ The IMBL, established under the United Nations Convention on the Law of the Sea (UNCLOS), demarcates territorial waters.
  - ✓ Indian fishermen claim historical fishing rights beyond the IMBL, leading to legal and diplomatic conflicts with Sri Lanka.
- ❖ **Ecologically Destructive Fishing Methods:**

- ✓ Bottom trawling by Indian fishermen is a major concern for Sri Lanka, as it damages marine habitats and depletes fish stocks.
- ✓ Sri Lankan fishermen advocate for sustainable fishing practices to protect their waters from over-exploitation.

❖ **National Security Concerns:**
- ✓ Sri Lanka fears that organized trawler intrusions could be exploited by Tamil militant groups for illegal activities.

❖ **Katchatheevu Island Dispute:**
- ✓ Indian fishermen retain limited rights to use Katchatheevu for drying nets and resting, but its sovereignty remains a contentious issue.
- ✓ Tamil Nadu politicians periodically demand its return to India, keeping the dispute alive in public discourse.

❖ **Livelihood Crisis:**
- ✓ Declining fish stocks in Indian waters have forced Indian fishermen into Sri Lankan territory, increasing conflicts.
- ✓ Sri Lankan Tamil fishermen, recovering from decades of civil war (1983–2009), find their livelihoods threatened by Indian fishing incursions.

Recent Developments
- ❖ **Diplomatic Talks & Agreements:** India and Sri Lanka have held multiple discussions on the issue, with Sri Lanka urging India to ban bottom trawling.
- ❖ **Joint Working Group on Fisheries:** A bilateral mechanism to address fishing disputes and explore sustainable solutions.
- ❖ **Deep-Sea Fishing Initiatives:** The Indian government has introduced schemes to promote deep-sea fishing, but implementation has been slow.
- ❖ **Continued Arrests:** Despite diplomatic efforts, arrests of Indian fishermen persist, with incidents reported in 2023, 2024, and early 2025.

Potential Solutions
- ❖ **Bilateral Agreements on Fishing Rights:**
  - ✓ A structured agreement allowing regulated access to Sri Lankan waters for Indian fishermen under specific conditions.
- ❖ **Technology and Sustainable Fishing:**
  - ✓ Encouraging Indian fishermen to adopt sustainable fishing practices and transition to deep-sea fishing instead of bottom trawling.
- ❖ **Joint Patrolling and Monitoring:**
  - ✓ Strengthening cooperation between Indian and Sri Lankan Coast Guards to prevent illegal crossings and ensure fair treatment of fishermen.
- ❖ **Compensation and Livelihood Support:**
  - ✓ The government should provide financial aid and alternative employment opportunities for affected fishermen to reduce dependence on illegal fishing.
- ❖ **People-to-People Diplomacy:**
  - ✓ Facilitating dialogue between Indian and Sri Lankan fishing communities to foster mutual understanding and reduce tensions.

Conclusion
- ❖ The India-Sri Lanka maritime dispute remains a complex issue with economic, diplomatic, and ecological dimensions. While diplomatic discussions continue, a comprehensive approach involving sustainable fishing practices, alternative livelihoods, and enhanced maritime cooperation is crucial to achieving a long-term resolution.

INDIA: A BRIDGE BETWEEN THE GLOBAL NORTH & GLOBAL SOUTH

Context: India's role as a bridge between the Global North and South has gained significant attention in recent years, allowing India to amplify the voice of the Global South while fostering stronger ties with traditional partners in the Global North.

Understanding the Global North and Global South

❖ The Global North typically comprises advanced economies such as the United States, Canada, Europe, Japan, and Australia, characterized by high GDP, industrialization, and technological dominance.

❖ In contrast, the Global South includes nations from Asia, Africa, and Latin America that face developmental challenges such as poverty, inadequate infrastructure, and climate vulnerability.

❖ Despite economic disparities, interdependence has grown between these two blocs. The North relies on the South for labor, resources, and markets, while the South benefits from investments, trade, and technology transfer.

India's Diplomatic Efforts in the Global North

❖ **Strengthening Strategic Partnerships:** India's relationship with countries like the United States, European Union, and Japan focus on areas like defense cooperation, economic collaboration, and technological exchange.

❖ **Participation in Multilateral Forums: India's** active participation in multilateral forums such as the G20, BRICS, and the United Nations with aims to shape global policies and advocate for the interests of developing nations.

❖ **Climate Leadership:** India in a leadership role in climate action, promoting initiatives like the International Solar Alliance (ISA) and the Coalition for Disaster Resilient Infrastructure (CDRI).
  ✓ Initiatives like the Global Development Compact and Mission LiFE are steps in this direction.

❖ **Economic Diplomacy:** By showcasing its success in building and deploying digital public infrastructure, such as the Universal Payments Interface (UPI) and Aadhaar biometric identity program, India has gained interest from both developed and developing nations.

❖ **Addressing Expatriate Concerns:** India has been working to address the concerns of its large expatriate population in the Global North.
  ✓ It includes providing support for employment-related issues, visa matters, and other expatriate concerns through its diplomatic missions.

❖ **Promoting Cultural and Educational Exchanges:** To strengthen people-to-people ties and enhance mutual understanding, that include student programs, cultural festivals, and academic collaborations.

India's Diplomatic Efforts in the Global South

❖ **South-South Cooperation:** It includes bilateral agreements, trade partnerships, and development assistance programs in regions like Africa, Latin America, and Asia.

❖ **Voice of the Global South Summits:** India has convened the Voice of the Global South Summits since 2023, providing a platform for leaders and representatives of developing countries to discuss pressing global challenges.
  ✓ These summits focus on issues such as food and energy security, climate change, and equitable development.

❖ **BRICS and G77:** India plays a significant role in BRICS nations and the Group of 77, advocating for the interests of developing nations in international forums.
  ✓ These platforms allow India to push for reforms in global governance and promote inclusive decision-making.

❖ **Vaccine Diplomacy:** During the COVID-19 pandemic, India engaged in vaccine diplomacy, providing vaccines to several developing countries.
  ✓ It helped strengthen India's relationships with its neighbors and other nations in the Global South.

- ❖ **Peacekeeping Operations:** India has been a significant contributor to UN peacekeeping operations, deploying troops and resources to conflict zones in Africa and other regions.
  - ✓ This commitment to peace and stability enhances India's diplomatic standing in the Global South.
- ❖ **Economic and Technological Assistance:** India has provided economic and technological assistance to developing countries, including infrastructure projects, capacity-building programs, and humanitarian aid.
  - ✓ These efforts aim to support sustainable development and improve the quality of life in the Global South.

Challenges in India's Role as a Bridge

- ❖ **Global Power Structures:** The dominance of Western-led institutions limits India's ability to push transformative reforms.
- ❖ **Geopolitical Rivalries:** India and China are vying for influence in regions like Africa and Asia, leading to competition in investment and development projects.
  - ✓ India's efforts to counter China's dominance while maintaining its own strategic interests can be a delicate balancing act.
- ❖ **Balancing Divergent Interests:** While the Global North focuses on issues like climate change, trade, and technological advancements, the Global South prioritizes poverty alleviation, infrastructure development, and access to basic services.
- ❖ **Economic Disparities:** Developing countries often face debt burdens and conditionalities imposed by international financial institutions, which can hinder their growth.
- ❖ **Institutional Reforms:** India's push for reforms in global governance institutions, such as the UNSC, is met with resistance from established powers.
  - ✓ Achieving meaningful reforms that ensure more inclusive representation and decision-making is a complex and ongoing challenge.
- ❖ **Resource Constraints:** India itself faces resource constraints, including financial limitations and developmental challenges.
  - ✓ Balancing domestic priorities with its international commitments requires careful planning and resource allocation.

India's Strategic Considerations and Global Positioning

- ❖ **Geopolitical Balancing and Non-Alignment 2.0:** Historically, India's non-aligned stance during the Cold War allowed it to maintain autonomy in global affairs.
  - ✓ Today, it continues this balancing act by maintaining strong ties with both the United States and Russia, engaging in the QUAD alliance while being an active member of BRICS and the Shanghai Cooperation Organisation (SCO).
- ❖ **India as an independent emerging power:** India's growing role in the Global South is often seen as a counter to China's rising global dominance.
  - ✓ Investment patterns in Africa indicate a race between India and China, with both nations focusing on countries with significant Chinese presence.
  - ✓ However, India's approach is not solely about competition; it aims to establish itself as an independent emerging power with its own strategic trade, defense, and geopolitical interests.

Conclusion & Way Forward

- ❖ India's role as a bridge between the Global North and South is a testament to its growing influence on the global stage.
- ❖ By fostering inclusive governance and development cooperation, India can effectively support the Global South while strengthening its own strategic interests.
- ❖ This balanced approach will help India navigate the complexities of global politics and contribute to a more equitable world.

TRADE WARS & TRADE WEAPONIZATION

Context: The global economic landscape has been significantly reshaped by trade wars initiated during the US President Donald Trump and the broader trend of trade weaponization. These measures have had far-reaching effects on various sectors of the global economy.

What is a Trade War?

A trade war occurs when nations impose tariffs or trade barriers against each other in retaliation for perceived economic harm or unfair trade practices.

Key Example:

❖ U.S.-China Trade War (2018-Present): The U.S. imposed heavy tariffs on Chinese goods, citing intellectual property theft, unfair subsidies, and currency manipulation. In response, China levied counter-tariffs, leading to disruptions in global supply chains.

What is Trade Weaponization?

Trade weaponization refers to the strategic use of trade policies as geopolitical tools rather than purely economic measures. It includes economic sanctions, export controls, supply chain restrictions, and currency manipulation to exert pressure on rival nations.

Examples:

❖ U.S. sanctions on Huawei to curb China's technological advancements.
❖ Russia's gas supply cuts to Europe amid geopolitical tensions.
❖ China's rare earth export controls to maintain dominance in technology manufacturing.
❖ Recent U.S. tariffs: A 25% tariff on all imports from Canada and Mexico and a 10% levy on Chinese goods.

Major Trade Wars and Trade Weaponization in Global Politics

❖ **US-China Trade War:**
  ✓ The U.S. imposed tariffs on $550 billion worth of Chinese goods.
  ✓ China retaliated with countermeasures, disrupting electronics, automobiles, and agriculture sectors.
❖ **US Sanctions on Russia (2022-Present):**
  ✓ Following Russia's invasion of Ukraine, the U.S. and the EU imposed sanctions restricting oil, gas, and banking transactions.
❖ **China's Economic Coercion Tactics:**
  ✓ **Australia:** Bans on Australian coal, barley, and wine after it called for a COVID-19 origins investigation.
  ✓ **Taiwan:** Banned Taiwanese food imports amid rising political tensions.
  ✓ **Lithuania:** Blocked Lithuanian exports after it deepened ties with Taiwan.

Impacts of Trade War & Trade Weaponization

❖ **Economic Disruptions:**
  ✓ Increased production costs, inflation, and energy price surges.
  ✓ Disruptions to global supply chains and trade flows.
  ✓ Shift of manufacturing away from China (e.g., Apple and Samsung moving production to India and Vietnam).
❖ **Weaponization of Commodities:**
  ✓ **Energy:** Oil and gas as leverage in geopolitical conflicts.
  ✓ **Food:** Grain exports being restricted as economic pressure.
  ✓ **Technology:** AI and semiconductor supply chains becoming battlegrounds.
❖ **Shifts in Global Alliances:**
  ✓ **Friendshoring:** Countries shifting trade towards geopolitical allies.
  ✓ **New Trade Alliances:** India's active participation in QUAD and IPEF.
  ✓ **Mineral Security Partnership (MSP):** Diversifying and stabilizing critical mineral supply chains.
❖ **Technology Wars:**

- ✓ The U.S.-China chip war over semiconductor dominance.
- ✓ Rise of alternative payment systems (e.g., Russia's Mir, India's rupee-ruble trade).

Strategies and India's Role in the Trade War Era

❖ **India's Response to the US-China Trade War:**
  - ✓ 'China Plus One' Strategy: Global firms shifting production to India.
  - ✓ Production-Linked Incentive (PLI) Scheme: Attracting manufacturers in electronics, pharmaceuticals, and semiconductors.

❖ **India-Russia Trade Relations Amid Sanctions:**
  - ✓ **Oil Imports:** Increased imports of discounted Russian oil.
  - ✓ **Alternative Payment Systems:** Exploring RuPay and rupee-ruble trade to bypass SWIFT sanctions.

❖ **India's Strategy Against Chinese Trade Dominance:**
  - ✓ **Ban on Chinese Apps (2020):** Over 200 apps, including TikTok, banned citing national security concerns.
  - ✓ **Higher Import Duties:** Raised tariffs on electronics, solar panels, and chemicals.
  - ✓ **Strengthening Domestic Manufacturing:** 'Atmanirbhar Bharat' initiatives to reduce reliance on Chinese goods.
  - ✓ **Trade Diversification:** Strengthening ties with ASEAN, Africa, and Latin America.
  - ✓ **Tariff Adjustments:** Raising tariffs on Chinese goods while negotiating Free Trade Agreements (FTAs) with Australia, UAE, and the EU.

India's Path Forward

❖ Strengthening Trade Partnerships: Expanding ties with the EU, ASEAN, and Africa.
❖ Investing in Critical Sectors: Developing semiconductor, renewable energy, and AI industries.
❖ Enhancing Supply Chain Resilience: Boosting indigenous manufacturing.
❖ WTO Reform: Addressing challenges posed by unilateral trade actions.

Future Outlook

❖ The era of free trade is gradually shifting toward economic nationalism and strategic decoupling. The rise of regional trade agreements (RCEP, IPEF, QUAD Economic Framework) and an increased focus on supply chain resilience indicate a movement toward de-globalization.

CONCERNS RELATED TO CHINA'S DAM PROJECT

Context: China's plan to construct the world's largest hydropower dam on the Brahmaputra River, known as the Yarlung Tsangpo in Tibet, has raised significant concerns among downstream countries, particularly India and Bangladesh.

Implications of China's Mega-Dam Project

Environmental and Ecological Concerns:

❖ **Altered Water Flow and Sediment Reduction:** River Brahmaputra carries vast amounts of sediment that fertilize downstream agricultural lands.
  - ✓ Chinese dams trap these sediments, reducing soil fertility and affecting farming communities in India and Bangladesh.

❖ **Increased Risk of Flash Floods:** Sudden releases of water from Chinese reservoirs could lead to devastating floods in Assam and Arunachal Pradesh.
  - ✓ There have been instances in the past where unannounced water discharges led to loss of lives and property.

❖ **Biodiversity Loss and Habitat Destruction:** River ecosystems, including aquatic species such as the Gangetic dolphin, are under threat due to fluctuating water levels and disrupted breeding cycles.

- ❖ **Glacial Melt and Climate Change Effects:** The Tibetan Plateau, often referred to as the "Third Pole", is home to the largest volume of ice outside the Arctic and Antarctic. It plays a critical role in the Earth's cryosphere and influences global climate patterns.
- ❖ **Seismic Risks:** The dam's location in a seismically active and ecologically fragile Himalayan region raises concerns about potential earthquakes and environmental degradation.
  - ✓ Such a massive infrastructure project could increase the risk of landslides and other geological disasters.

Geopolitical Ramifications:
- ❖ **India's Vulnerability:** India, which relies on the Brahmaputra for agriculture and drinking water, fears that China could use its control over the river as a strategic weapon, either by restricting water flow or causing artificial floods.
- ❖ **Legal and Diplomatic Challenges:** International laws governing transboundary rivers, such as the UN Convention on the Law of the Non-navigational Uses of International Watercourses (1997), emphasize equitable and reasonable utilization of shared water resources.
  - ✓ However, China is not a signatory to this convention, allowing it to exercise unchecked control over these rivers.
  - ✓ China and India have the Expert Level Mechanism (ELM) since 2006 for hydrological data sharing, but lack a comprehensive treaty.
- ❖ **Conflict with Southeast Asian Nations:** Countries like Vietnam, Cambodia, and Thailand, which depend on the Mekong River, have raised similar concerns over reduced water availability due to China's upstream damming.
- ❖ **Economic and Social Impact:** Large dam projects often lead to forced relocation of local communities.
  - ✓ Altered river flows can disrupt irrigation patterns and reduce fish stocks, threatening food security in India and Bangladesh.

India's Response and Possible Strategies
- ❖ **Developing Its Own Water Infrastructure:** India has been ramping up dam and hydropower projects in Arunachal Pradesh, like the proposed Siang Upper Multipurpose Project (SUMP) to ensure water security and energy generation.
- ❖ **Strengthening Diplomacy:** India has been engaging with Bangladesh and other regional stakeholders to form a united front on transboundary water management.
- ❖ **Enhancing Satellite Monitoring and Early Warning Systems:** Improved satellite surveillance of Chinese dam activities and better flood prediction models can help mitigate risks.
- ❖ **Exploring Legal Avenues:** India could push for regional agreements on water-sharing and seek international arbitration in cases of water disputes.

SHARED UNDERSTANDING: INDIA-FRANCE TIES

Context: India and France share a robust strategic partnership based on mutual respect, shared values, and cooperation on global challenges, reaffirmed during PM Modi's recent visit to France.

India-France Relationship

Historical Background:
- ❖ Diplomatic ties between India and France date back to 1947 when France recognized India's independence.
- ❖ The relationship transformed significantly, culminating in the establishment of a strategic partnership in 1998.
- ❖ France was among the first Western nations to support India after its nuclear tests, recognizing it as a responsible nuclear power.

Trade and Economic Partnership:
- ❖ France is India's 11th largest trading partner in the European Union, with bilateral trade exceeding $12 billion in 2023.
- ❖ French companies like Airbus, Dassault, Renault, and Michelin have significant operations in India, while Indian IT firms like TCS, Infosys, and Wipro maintain a strong presence in France.
- ❖ At the 14th India-France CEOs Forum, PM Modi emphasized increasing investments in digital technology, green energy, and artificial intelligence.

Defense Cooperation:
- ❖ **Defense Industrial Roadmap:** Aimed at co-designing and co-developing military hardware.
- ❖ **Advanced Artillery & Technology Transfer**: Collaboration on advanced weaponry, joint military exercises (e.g., Varuna), and defense technology sharing.
- ❖ **France-India Defence Startup Excellence (FRIND-X):** Initiative under HORIZON 2047 and the India-France Defence Industrial Roadmap.
- ❖ **Rafale Fighter Jets:** India procured 36 Rafale jets under a 2016 deal, with a recent agreement for Rafale-M jets to operate from India's aircraft carriers, set for delivery by 2029.
- ❖ **Scorpène-Class Submarines:** France assisted India in building Scorpène-class submarines and plans integration of Air Independent Propulsion (AIP) under Project 75, along with a possible Integrated Combat System (ICS) in future P75-AS submarines.

Space Collaboration:
- ❖ ISRO and CNES collaborate on satellite launches and joint research, enhancing space technology applications.

Strategic & Geopolitical Cooperation:
- ❖ Shared vision for a free, open, and inclusive Indo-Pacific; strengthened naval collaboration to counter China's influence.
- ❖ France supports India's bid for a permanent UN Security Council (UNSC) seat and its membership in the Nuclear Suppliers Group (NSG).
- ❖ India-Middle East-Europe Economic Corridor (IMEC): A MoU signed at the G20 Summit to facilitate European market access, technological collaboration, and counter China's Belt and Road Initiative (BRI).

Energy & Climate Cooperation:
- ❖ **International Solar Alliance (ISA):** Co-founded by India and France in 2015 to promote solar energy worldwide.
- ❖ Collaboration on nuclear energy projects including nuclear reactors at Jaitapur, Maharashtra.
- ❖ Agreements for Small Modular Reactors (SMRs) and Advanced Modular Reactors (AMRs).
- ❖ France supports India's renewable energy ambitions by investing in hydrogen energy and sustainable urban development.
- ❖ India-France Indo-Pacific Triangular Development Cooperation: Supports climate and SDG-focused projects in third countries in the Indo-Pacific.

Counterterrorism & Financial Security:
- ❖ Joint efforts against terrorism through designations of UN-sanctioned individuals and organizations.
- ❖ Commitment to Financial Action Task Force (FATF) standards and participation in No Money for Terror (NMFT) initiatives.

Health Infrastructure:
- ❖ Cooperation in digital health, antimicrobial resistance, and exchange of health professionals under the Indo-French Life Sciences Sister Innovation Hub.
- ❖ Centre for Cellular and Molecular Platforms (C-CAMP) collaboration for biotech innovation.

Cultural & Educational Exchanges:
- ❖ France remains a popular destination for Indian students, with over 10,000 currently studying there.
- ❖ Opening of the Consulate General of India in Marseille to strengthen cultural and business ties.
- ❖ Young Professionals Scheme (YPS) under the India-France Migration and Mobility Partnership Agreement (MMPA).

Concerns in India-France Relations
- ❖ **Trade & Economic Frictions:**
  - ✓ **Lack of a Free Trade Agreement (FTA):** France supports an ambitious EU-India trade deal, but differences over tariffs, labor laws, and environmental clauses have delayed progress.
  - ✓ **Agricultural & Dairy Disputes:** France sees India's protectionist policies as a hurdle, particularly regarding dairy and wine market access. India seeks fewer restrictions on IT services and skilled labor mobility.
  - ✓ **Digital Taxation & Data Protection:** France's digital tax policies affect Indian IT firms, while India's data localization rules raise concerns for French businesses.
- ❖ **Technology Transfer Issues:**
  - ✓ **Barriers to Technology Transfer:** India's Make in India and Aatmanirbhar Bharat push for technology transfer, while France remains cautious, particularly in military technology.
  - ✓ **Delays in Project Implementation:** Indo-French defense projects, especially naval collaborations, have faced delays, raising concerns over cost escalations.
- ❖ **Geopolitical Challenges:**
  - ✓ **Russia-Ukraine War:** India's neutral stance contrasts with France's pro-Western approach, impacting defense trade and energy security.
  - ✓ **Multilateral Cooperation Issues:** Divergences on UNSC reforms, climate change policy, and energy transitions require negotiation.
  - ✓ **Rise of Protectionism & Visa Issues:** Stricter work and study visa rules affect business mobility.
  - ✓ **China Factor & Indo-Pacific Strategy:** France balances ties with China, sometimes conflicting with India's deepening QUAD and AUKUS engagements.

Conclusion & Way Forward
- ❖ While India and France share a strong, time-tested relationship, geopolitical divergences, defense technology issues, and trade frictions require diplomatic foresight and pragmatic solutions.
- ❖ Strengthening defense collaboration, economic cooperation, and multilateral coordination is crucial.
- ❖ Both nations are well-positioned to play a key role in regional and global stability.

INDIA IN INDIAN OCEAN REGION

Context: India, along with Singapore and Oman, is hosting the 8th Indian Ocean Conference (IOC) in Muscat, where foreign ministers from 30 nations are discussing regional security and economic cooperation.

What is the Indian Ocean Region (IOR)?
- ❖ The third-largest ocean in the world, covering 70.56 million sq km and connecting Asia, Africa, and Australia.
- ❖ A natural trade corridor historically influenced by Indian civilization and maritime networks.

Nations Surrounding IOR:
- ❖ 26 coastal nations, including India, Sri Lanka, Maldives, Oman, Indonesia, Australia, South Africa, and Somalia.
- ❖ Landlocked countries like Nepal and Bhutan also depend on IOR trade routes.

Importance of the Indian Ocean Region (IOR):

❖ **Global Trade Hub:** Facilitates 70% of global container traffic and 90% of India's energy imports, making it a key economic corridor.
❖ **Maritime Security:** Critical sea lanes like the Strait of Malacca, Hormuz, and Bab el Mandeb ensure uninterrupted global trade.
❖ **Resource-Rich Waters:** Contains vast fisheries, oil, gas, and mineral deposits, crucial for regional economies.
❖ **Strategic Significance:** Hosts naval bases of major powers (US, UK, China, France), influencing global security dynamics.

India's Role in Managing the Indian Ocean Region:
❖ **SAGAR Initiative (2015):** Launched by PM Modi to promote Security and Growth for All in the Region, ensuring maritime stability.
❖ **Naval Capabilities & Regional Security:** Indian Navy conducts joint exercises (MILAN, Malabar, Varuna) to strengthen regional defense cooperation.
❖ **Economic & Trade Leadership**: India develops ports via Sagarmala and promotes the Blue Economy for sustainable ocean resource utilization.
❖ **Disaster Relief & Humanitarian Assistance:** Plays a leading role in HADR operations, assisting countries during natural disasters and emergencies.
❖ **Diplomatic & Strategic Alliances**: Strengthens regional partnerships through IORA, BIMSTEC, and QUAD for collective maritime governance.

Challenges in the Indian Ocean Region:
❖ **China's Expanding Influence**: String of Pearls strategy and growing naval presence challenge regional stability and India's interests.
❖ **Piracy & Maritime Crimes:** Somali piracy, illegal fishing, and arms smuggling disrupt trade and security operations.
❖ **Climate Change & Rising Sea Levels**: Small Island nations face existential threats due to coastal erosion and submergence risks.
❖ **Undersea Surveillance & Cyber Threats:** Chinese control over subsea cables poses risks to data security and regional communications.
❖ **Maritime Terrorism & Trafficking:** Drug smuggling, human trafficking, and sea-based terrorism remain persistent security threats.

Way Ahead:
❖ **Strengthening Maritime Infrastructure:** Invest in port modernization, naval expansion, and undersea surveillance systems.
❖ **Enhancing Regional Cooperation:** Deepen partnerships with IORA, QUAD, and bilateral maritime security agreements.
❖ **Boosting Blue Economy & Sustainable Development:** Promote fisheries, ocean industries, and clean energy solutions for long-term sustainability.
❖ **Countering External Influence:** Protect regional communication networks and prevent foreign dominance in key maritime sectors.
❖ **Disaster Preparedness & Climate Action**: Develop early warning systems, climate resilience plans, and disaster relief infrastructure.

Conclusion:
The Indian Ocean Region is a vital geopolitical and economic hub, influencing global trade, security, and regional stability. India's proactive leadership through SAGAR and IORA is crucial in maintaining peace and prosperity. Strengthening maritime security, infrastructure, and regional alliances will ensure India's prominence in the global maritime order.

INDIAN OCEAN: STRATEGIC SIGNIFICANCE & INDIA'S ROLE

Context: External Affairs Minister S. Jaishankar emphasized the need for a "coordinated flotilla" to promote stability and cooperation in the Indian Ocean Region (IOR).

His remarks highlight the growing geopolitical competition and security challenges in the region, necessitating multilateral maritime collaboration.

About the Indian Ocean

❖ **Geographic Overview:**
- ✓ **Third Largest Ocean:** Spans 9,600 km from the Bay of Bengal to Antarctica and 7,800 km from South Africa to Western Australia.
- ✓ Coastline: 70,000 km, including major economies like India, Australia, and African nations.
- ✓ **Population & Coastal Influence:** Home to 35% of the world's population and 40% of the global coastline.

❖ **Historical & Civilizational Significance:**
- ✓ Named after India, reflecting its historical and cultural influence on maritime trade.
- ✓ Served as a key trade route since the first millennium, connecting India with Arab lands, Southeast Asia, and Africa.
- ✓ The Silk Route & Spice Trade flourished via the Indian Ocean, linking Europe, Asia, and Africa.

❖ **Strategic Importance:**
- ✓ A critical global trade route, facilitating 70% of the world's container traffic.
- ✓ 80% of India's external trade and 90% of its energy imports pass through the Indian Ocean.
- ✓ Key oil supply routes from West Asia to India, China, Japan, and Europe traverse the region.

❖ **Control of Maritime Chokepoints**: India's central position in IOR provides strategic leverage over:
- ✓ Strait of Hormuz (Iran-Oman) – Vital for oil shipments.
- ✓ Bab el-Mandeb (Yemen-Djibouti) – Entry to the Red Sea & Suez Canal.
- ✓ Strait of Malacca (Indonesia-Malaysia) – Key trade passage for East Asia.

Challenges in the Indian Ocean Region (IOR)

❖ **Maritime Security Threats:** Frequent pirate attacks & trafficking, particularly near Somalia and the Gulf of Aden.

❖ **Economic & Environmental Issues:** Overfishing and deep-sea mining threaten marine ecosystems.

❖ **Climate Change & Rising Sea Levels:** Small island nations face coastal erosion and submersion risks.

❖ **Humanitarian Crises & Disasters:** Natural disasters like cyclones, tsunamis, and oil spills require coordinated disaster response.

❖ **Geopolitical Rivalries:** Growing influence of the U.S., China, UK, and France fuels power struggles in the region.

India's Policy Shift in the Indian Ocean
Strengthening Regional Ties:

❖ **India is actively engaging with IOR nations through:**
- ✓ Indian Ocean Conference (IOC) – A key diplomatic platform initiated by India.
- ✓ Indian Ocean Rim Association (IORA) – Multilateral cooperation on economic and maritime security.
- ✓ Indian Ocean Naval Symposium (IONS) – Enhancing naval interoperability and intelligence sharing.
- ✓ Colombo Security Conclave – Focuses on maritime security & counterterrorism with Sri Lanka, Maldives, and Mauritius.

SAGAR (Security and Growth for All in the Region):

❖ Launched in 2015 under PM Modi, this initiative aims to:
- ✓ Strengthen India's leadership in IOR.
- ✓ Ensure free and open sea lanes for secure global trade.

✓ Promote sustainable maritime development.

Enhancing Blue-Water Capabilities:
❖ **Naval Expansion:** India is modernizing its navy by inducting indigenous aircraft carriers and advanced submarines.
❖ **Maritime Surveillance:** Deployment of P-8I Poseidon aircraft, and satellite-based tracking systems.
❖ **Quad Cooperation:** India, U.S., Japan, and Australia collaborate on maritime security, anti-submarine warfare, and intelligence sharing.

INDIA, QATAR ELEVATE TIES TO 'STRATEGIC PARTNERSHIP'

Context: India and Qatar have signed an agreement to elevate their ties to the level of a strategic partnership.
❖ Both countries commemorated the 50 years of establishment of diplomatic relations in 2023.

Key Outcomes
❖ Both countries are exploring the option of concluding a Free Trade Agreement (FTA).
❖ Two sides also signed a double taxation avoidance treaty and also planned on doubling their trade to $28 billion within five years.
❖ Both sides discussed the Israel-Palestinian conflict in Gaza Strip.
❖ India currently has strategic partnerships with four other members of the Gulf Cooperation Council – the United Arab Emirates (UAE), Saudi Arabia, Oman, and Kuwait.
❖ **Significance of the Visit:**
  ✓ **Arab States Summit:** The visit of the Qatari Emir has drawn attention as it is being held just two days prior to the five Arab states summit in Riyadh.
    ➤ The summit will take up the new proposals from the United States.
  ✓ **US Proposal on Gaza Crisis**: President Trump's proposed that the Palestinians of the region should be shifted out to neighbouring countries like Egypt and Jordan.
    ➤ India supports a two-state solution in bringing an end to the Israel-Palestinian crisis and has welcomed the ceasefire that was announced recently.

Brief on India-Qatar Relations
❖ **Economic and Trade Relations:** Qatar is the largest provider of liquefied natural gas (LNG) and liquefied petroleum gas (LPG) to India, supplying 10.91 million metric tonnes of LNG and 4.92 million metric tonnes of LPG in FY 2023-24.
  ✓ The current annual trade is worth $14.08 billion.
❖ **Defence:** India participates in the biennial Doha International Maritime Defence Exhibition and Conference (DIMDEX).
  ✓ Exercise Zair-Al-Bahr is a joint naval exercise between the Indian Navy and the Qatar Emiri Naval Force (QENF).
  ✓ The India-Qatar Defence Cooperation Agreement was signed in 2008 and extended for five years in 2018.
  ✓ The agreement is managed through the Joint Defence Cooperation Committee (JDCC).
❖ **Labor and Diaspora:** India has a large expatriate community in Qatar, numbering over 700,000.
  ✓ The Indian diaspora in Qatar plays a crucial role in the country's development, particularly in construction and other sectors.
❖ **Regional Cooperation:** Gulf Cooperation Council (GCC) is a political and economic alliance of six Middle Eastern countries—Saudi Arabia, Kuwait, the United Arab Emirates, Qatar, Bahrain, and Oman. It was established in 1981.
  ✓ India engages regularly with GCC and aims to deepen its relationship with the GCC.

Challenges/Concerns
❖ The Hamas–Israel conflict and shipping attacks in the Red Sea affect India's energy security and economic growth.
  ✓ India remains cautious in Middle Eastern politics, balancing relations with the Gulf, Iran, and Israel.
  ✓ If the conflict escalates, this balancing act could become more challenging.
❖ **Delay in Connectivity Projects:** The conflict has delayed a senior-officials meeting for the I2U2 group since 2023.
  ✓ India urges economic initiatives like I2U2 and IMEC to progress despite the conflict.
❖ **FTAs with GCC:** Delays in finalizing the India–GCC Free Trade Agreement (FTA) due to changes in the GCC's trade negotiator.
  ✓ Reaching an agreement that satisfies all GCC states remains a key challenge.

Way Forward
❖ Growing security challenges are increasing the need for India to be a key strategic partner of Gulf states.
❖ India aims to expand its regional presence and influence.
❖ Stronger alignment in political, economic, and security interests is shaping a new framework for India-Gulf relations.
❖ If maintained, this framework will boost trust and enable more ambitious cooperation.

MYANMAR, MANIPUR, AND STRAINED BORDERS

Context: The recent political instability in Myanmar, coupled with the influx of refugees into India, particularly the border regions with Myanmar, has strained the already fragile border management and security infrastructure.

About India-Myanmar Border
❖ The India-Myanmar border shares 1643 kms and passes through the States of Arunachal Pradesh (520 km), Nagaland (215 km), Manipur (398 km), and Mizoram (510 km).
  ✓ These have historically been porous, allowing free movement of people under the Free Movement Regime (FMR).
❖ However, border regions of Manipur (sharing a border with Myanmar's Chin state), have long been a site of ethnic tensions, insurgency, and geopolitical complexities.

Geopolitical Context
❖ **Myanmar's Political Crisis:** Since the military coup in Myanmar in 2021, the country has been engulfed in widespread conflict.
  ✓ The Tatmadaw (Myanmar's military) has cracked down on pro-democracy activists, ethnic rebel groups, and civilian resistance movements, leading to a surge in violence, particularly in Myanmar's northwestern states of Chin, Sagaing, and Kachin.
❖ **Free Movement Regime (FMR):** It allows people residing within 16 km on either side of the border to cross without a visa for up to 14 days, and was designed to facilitate traditional and cultural exchanges.
  ✓ However, in recent years, concerns over illegal migration, drug trafficking, and insurgency have led to debates about its continuation.

Ethnic Unrest in Manipur and Its Myanmar Connection
❖ **Manipur's Ongoing Ethnic Violence:** Manipur has witnessed a significant influx of refugees fleeing military persecution.
  ✓ Many of these refugees share ethnic ties with indigenous tribes in Manipur and Mizoram, particularly the Kuki-Zo community (from Chin hills of Myanmar), deepening regional ethnic tensions.

- ❖ **Insurgency Factor:** Several insurgent groups, including the United National Liberation Front (UNLF), People's Liberation Army (PLA), and Kuki National Organization (KNO), have historically operated along the porous border, often using Myanmar as a sanctuary.
  - ✓ Additionally, Myanmar's own rebel groups, such as the Chin National Army (CNA), share ties with Kuki-Zo factions in Manipur, creating complex security challenges for India.

Security Implications for India
- ❖ **Refugee Influx and Humanitarian Concerns:** States like Mizoram and Manipur have witnessed an influx of refugees, prompting calls for a structured refugee policy.
  - ✓ India has been cautious in dealing with Myanmar refugees, as it is not a signatory to the Refugee Convention (1951).
- ❖ **Cross-Border Insurgency and Smuggling:** The region has become a conduit for the Golden Triangle's drug trade, particularly heroin and methamphetamine.
  - ✓ Intelligence reports have linked insurgent groups with cross-border criminal networks, necessitating stricter border monitoring.
- ❖ **Strategic and Diplomatic Concerns:** India has maintained a cautious approach, prioritizing stability along its northeastern borders, and growing Chinese influence in Myanmar has added to its strategic concerns.
  - ✓ For India, it presents a dual challenge — ensuring border security while preventing the region from becoming a breeding ground for external influences, including China, which has growing stakes in Myanmar.

Economic and Social Implications
- ❖ The establishment of Border Haats and other economic activities aimed at promoting cross-border trade and livelihoods have been disrupted.
- ❖ The humanitarian crisis in Manipur has led to gaps in documenting humanitarian needs and providing adequate relief to affected populations.

Policy Considerations and the Way Forward
- ❖ **Reassessing the Free Movement Regime (FMR):** While completely scrapping the FMR could disrupt traditional ties, a more regulated framework with biometric tracking and controlled entry points could help mitigate security risks.
- ❖ **Border Fencing and Security Operations:** To curb illegal migration and insurgent activities, India has accelerated border fencing efforts.
  - ✓ The deployment of Assam Rifles and paramilitary forces has also been strengthened.
- ❖ **Stronger Counterinsurgency Operations:** Enhanced intelligence-sharing and joint military operations with Myanmar's authorities could help curb cross-border insurgent activities.
- ❖ **Humanitarian Dilemmas:** India faces the challenge of balancing security with humanitarian responsibilities. The Mizoram government, for instance, has provided aid to Myanmar refugees, while Manipur has adopted a stricter stance.
  - ✓ India must develop a clear refugee policy to balance security concerns with humanitarian obligations, particularly for ethnic communities with historical ties to Indian states.
- ❖ **Diplomatic Engagement with Myanmar:** India continues to engage with both Myanmar's military regime and ethnic insurgent groups to ensure security cooperation.
  - ✓ The Kaladan Multi-Modal Transit Transport Project, which connects India's Northeast to Myanmar's Rakhine state, remains a crucial element of India's Act East Policy.

Conclusion
- ❖ The Myanmar-Manipur border represents a complex web of ethnic, security, and geopolitical challenges. India's response needs a careful balancing act—enhancing security without alienating

border communities and maintaining strategic engagement with Myanmar while upholding democratic values.

❖ The evolving situation demands a nuanced approach that combines diplomacy, security, and socio-political reconciliation to prevent further instability in this sensitive frontier.

LONG AND WINDING ROAD OF INDIA-CHINA RELATIONS

Context: India and China, two of the world's most populous and influential nations, share a complex and multifaceted relationship. Over the years, their interactions have been marked by cooperation, competition, and conflict.

India-China Relation: Historical Background

❖ **After India's Independence:** India was among the first countries to recognize the People's Republic of China in 1950, formally establishing diplomatic ties on April 1, 1950.

✓ It was exemplified by the Panchsheel Agreement (1954), which laid the foundation for peaceful coexistence, and slogan 'Hindi-Chini Bhai-Bhai' (Indians and Chinese are brothers) symbolized the early optimism.

✓ However, tensions emerged over territorial disputes, particularly in Aksai Chin and Arunachal Pradesh (Sino-Indian War of 1962).

❖ **Cold War and Strategic Divergences (1962–1990s):** China aligned itself with Pakistan and the United States, while India deepened ties with the Soviet Union.

✓ Border skirmishes continued, most notably in 1967 (Nathu La and Cho La clashes) and 1987 (Sumdorong Chu Standoff).

✓ India established a Joint Working Group on the boundary issue and paved the way for improved diplomatic engagement in 1988 after Prime Minister Rajiv Gandhi's visit to China.

❖ **Era of Engagement and Economic Cooperation (1990s–2010s):**

✓ **1993 & 1996:** Agreements on the Maintenance of Peace and Tranquility and Confidence-Building Measures along the Line of Actual Control (LAC).

✓ **2005:** Political Parameters and Guiding Principles for Border Settlements; Strategic and Cooperative Partnership

✓ Trade relations flourished, with China becoming India's largest trading partner. Economic engagement peaked with initiatives like the BRICS alliance and participation in regional forums such as the Shanghai Cooperation Organization (SCO).

❖ **Rising Tensions and Border Confrontations (2010s–Present):**

✓ **2013:** Depsang standoff, and Border Defence Co-operation Agreement;

✓ **2014:** Chumar incident during President Xi Jinping's visit to India.

✓ **2017:** Doklam standoff, where Indian and Chinese troops faced off for 73 days.

✓ **2020:** Galwan Valley clash, the deadliest confrontation in decades, leading to casualties on both sides. Military tensions remain high along the LAC, despite multiple rounds of talks.

Current Dynamics: Key Areas of Conflict

❖ **Economic Ties:** Despite tensions, bilateral trade remains significant, with China being India's largest source of imports(bilateral trade crossed $125 billion in 2024, with 1.9% year-on-year growth).

✓ However, the trade imbalance remains a concern for India.

✓ India has imposed restrictions on Chinese investments and apps due to security concerns.

❖ **Geopolitical Rivalry:** Competition in the Indo-Pacific, China's ties with Pakistan, expansion in the Indian Ocean, and Belt and Road Initiative (BRI) challenge India's strategic interests.

❖ **Border Disputes: The** LAC remains a flashpoint, with frequent skirmishes and military build-ups. Ongoing tensions in Ladakh, Arunachal Pradesh, and Sikkim.

✓ Efforts to resolve the border issue through diplomatic and military channels continue, but progress has been slow, and border tensions persist.

Pathways for the Future
- ❖ **Economic Diversification:** Both countries can benefit from deeper engagement in sectors such as renewable energy, digital technology, and infrastructure development.
  - ✓ India must reduce dependency on Chinese imports while promoting domestic industries.
  - ✓ Trade agreements addressing the imbalance can foster stronger economic bonds.
- ❖ **Military Preparedness:** Strengthening border infrastructure and strategic partnerships with allies.
  - ✓ Sustained military and diplomatic talks are crucial for preventing conflicts.
  - ✓ Confidence-building measures (CBMs) along the border can enhance trust.
  - ✓ Working Mechanism for Consultation & Coordination (WMCC) and Corps Commander-level talks have been key platforms for negotiations.
- ❖ **Regional and Global Cooperation:** Climate change, trade, and counter-terrorism offer potential areas of collaboration.
  - ✓ Regular summits and diplomatic dialogues are crucial.
- ❖ **Cultural and Educational Exchanges:** Encouraging student exchanges, tourism, and academic collaboration can improve people-to-people relations.

Conclusion
- ❖ India-China relations remain complex, marked by both cooperation and conflict. While economic ties provide a foundation for engagement, border tensions and strategic competition continue to shape the trajectory of their relationship.
- ❖ Managing this relationship requires careful diplomacy, strategic foresight, and pragmatic decision-making.

INDIA, CHINA WORKED HARD TO PROTECT G-20

Context: The External Affairs Minister of India emphasized that India and China worked hard to preserve the G-20 as an institution amid global polarization.

About
- ❖ India and China discussed bilateral developments, particularly the situation on the Line of Actual Control (LAC).
- ❖ The two leaders reviewed bilateral relations, discussing the resumption of the Kailash Mansarovar pilgrimage, trans-border river talks, flight connectivity, and facilitating travel.

Inception of the G20
- ❖ It was founded in 1999 after the Asian financial crisis (1997-1998) as an informal forum for Finance Ministers and Central Bank Governors.
- ❖ Initially focused on macroeconomic issues, but has expanded to include trade, climate change, health, agriculture, energy, and anti-corruption.
- ❖ **Membership:** Comprises 19 countries: Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, South Korea, Mexico, Russia, Saudi Arabia, South Africa, Turkey, UK, and US.
  - ✓ Also includes two regional bodies: the European Union (EU) and African Union (AU).
- ❖ **Presidency:** The G20 does not have a permanent secretariat.
  - ✓ The G20 Presidency rotates annually, and each country within a regional group takes a turn hosting the Presidency.

Role of India in G20
- ❖ The G20 Leaders' Summit in 2023, showcased India's capacity as G20 president to create a platform for global discussions and reach a consensus through the Leaders' Declaration.

✓ India placed inclusivity at the forefront, ensuring public concerns were heard through 11 Engagement Groups representing diverse segments like youth, women, private sector, and civil society.

❖ India's G20 presidency advocated for Sustainable Development Goal 1 (SDG 1) – "no poverty" – aligning with global development goals.

❖ India represents the Global South in G20, advocating for developing nations and addressing their challenges.

Importance

❖ India's economic strength and diverse representation enable it to contribute to policies benefiting emerging economies.

❖ The G20 forum helps India attract foreign investments,spurring job creation, technological advancement, and infrastructure development.

❖ India's G20 leadership reflects its commitment to inclusivity and economic strength, aiming for tangible outcomes like increased investments, job opportunities, income growth, and poverty reduction.

Challenges

❖ India faces challenges in navigating relations between major powers like the US, China, and Russia.

❖ India's rapid industrialization and development pose challenges in balancing economic growth with climate goals.

❖ The divide between developed and developing countries remains a challenge.

Conclusion and Way Forward

❖ India's G20 participation elevates its global profile and strengthens its leadership in international affairs.

❖ Despite challenges, India's G20 role offers significant opportunities to drive global change, promote growth, and represent developing nations.

❖ India's global ascent, under G20 leadership, extends benefits to ordinary citizens, farmers, factory workers, and the urban middle class, ensuring equitable global prosperity.

INDIA-JAPAN ECONOMY AND INVESTMENT FORUM

Context: India-Japan Economy and Investment Forum was held recently.

About

❖ Concerns Over Trade Surplus: Union Minister Piyush Goyal expressed concerns over Japan's growing trade surplus with India.

❖ **Stagnant Exports:** India's exports to Japan have remained stagnant for the past 15 years.
✓ Many Japanese investments in India source products from countries like Korea, Japan, Taiwan, and China, using India mainly as a market for their goods.

❖ **Rising Japanese Exports:** Japanese exports to India have consistently increased, worsening the trade imbalance.

❖ **Focus on Addressing Imbalance:** The Union Minister highlighted the need to address this growing disparity in trade between the two countries.
✓ He urged Japanese companies to produce goods and services in India that can be exported to Japan, aiming to balance the trade relationship.

Brief on India and Japan Relations

❖ **Historical and Cultural Ties:** Both countries share spiritual and cultural traditions, such as the influence of Hinduism on Japan's Seven Lucky Gods and historical connections like the 752 AD consecration of Lord Buddha's statue by Indian monk Bodhisena at Todaiji Temple in Japan.

❖ **Establishment of Relations:** After WWII, India opted for a separate Peace Treaty with Japan, signed in 1952, marking the start of formal diplomatic relations.

- ❖ **Strategic Synergy:** Both nations align on key regional initiatives, such as India's Act-East Policy, Indo-Pacific vision (SAGAR), and Japan's Free and Open Indo-Pacific Vision.
- ❖ **Trade and Investment:** Japan is a key ally in India's economic growth, with FDI from Japan exceeding $43 billion from 2000 to 2024, making it India's fifth-largest source of foreign investment.
  - ✓ In 2023-24, the country's export to Japan was $5.15 billion and imports were $17.7 billion. The trade gap was $12.55 billion.
- ❖ **Collaboration on Global Initiatives:** Japan and India cooperate in initiatives like the International Solar Alliance (ISA), Coalition for Disaster Resilient Infrastructure (CDRI), and Leadership Group for Industry Transition (LeadIT).
  - ✓ Both countries work together in multilateral frameworks like the Japan-Australia-India-U.S. Quad and the India-Japan-Australia Supply Chain Resilience Initiative (SCRI).
- ❖ **Integral Defense Partnership:** India-Japan defense cooperation is a key pillar of bilateral ties, focused on Indo-Pacific peace, security, and stability.
  - ✓ **Key Agreements:**
    - ➤ Joint Declaration on Security Cooperation (2008).
    - ➤ Memorandum of Defense Cooperation (2014).
    - ➤ Agreements on Defense Equipment & Technology (2015) and Protection of Classified Military Information (2015).
    - ➤ Reciprocal Provision of Supplies and Services Agreement (2020).
  - ✓ Exercises and Joint Activities: Maritime Exercise Malabar.
    - ➤ First Bilateral Fighter Exercise, Veer Guardian, in Japan (2023).
    - ➤ First-ever Army-to-Army Exercise Dharma Guardian held in Japan (2023).
    - ➤ Exercise Shinnyu Maitri between IAF and JASDF.
    - ➤ JIMEX joint Naval Exercise between two nations.
- ❖ **Connectivity Projects in India:** The first High Speed Rail (HSR) corridor is being implemented from Mumbai to Ahmedabad with technical and financial assistance from Japan.
  - ✓ Presently, six Metro Rail projects (Ahmedabad, Bangalore, Chennai, Delhi, Kolkata, Mumbai) are being implemented with technical and financial support from Japan.
- ❖ **Space Collaboration:** ISRO and JAXA collaborate in X-ray astronomy, satellite navigation, lunar exploration, and the Asia Pacific Regional Space Agency Forum (APRSAF).
  - ✓ In 2016, they signed a Memorandum of Cooperation (MoC) for peaceful space exploration and use.

Challenges

- ❖ **Trade Imbalance:** There is a significant trade imbalance, with Japan exporting more to India than India exports to Japan, creating a need for better reciprocal trade.
- ❖ **Geopolitical Tensions:** Regional security issues, such as China's influence in the Indo-Pacific, pose challenges for India-Japan relations, requiring careful diplomatic balancing.
- ❖ **Cultural and Language Barriers:** Despite strong ties, differences in language, culture, and business practices pose challenges to deeper integration.
- ❖ **Limited People-to-People Exchanges:** The scale of people-to-people interactions is still limited, impacting deeper mutual understanding.
- ❖ **Infrastructure Constraints:** Despite improvements, some areas in India still lack the infrastructure necessary to support large-scale Japanese investments effectively.
- ❖ **Different Economic Priorities:** India's focus on rapid economic growth may sometimes contrast with Japan's emphasis on sustainable development and technology.

Way Ahead

❖ **Enhance Trade and Investment:** Focus on reducing the trade imbalance by increasing Indian exports to Japan and encouraging Japanese investment in India's manufacturing and technology sectors.

❖ **Boost People-to-People Connections:** Increase cultural exchanges, tourism, and educational collaborations to deepen mutual understanding.

❖ **Technology and Innovation Partnership:** Leverage Japan's expertise in technology and India's growing digital sector to collaborate in AI, robotics, renewable energy, and space exploration.

❖ **Address Environmental Concerns**: Increase cooperation on environmental sustainability, climate change, and disaster resilience to support both countries' green energy goals.

INDIA'S 'LOOK EAST' POLICY HAS TRANSFORMED INTO 'ACT EAST'

Context: Recently, the Vice-President of India highlighted the transformation of India's "Look East" policy into "Act East" by Prime Minister Narendra Modi.

Historical Context and Evolution

❖ Look East Policy (Post-Cold War Era): Introduced by Prime Minister P.V. Narasimha Rao in 1992, the Look East Policy sought to rectify India's historical neglect of Southeast Asia, despite deep cultural and historical ties.

✓ Initially focused on Southeast Asia, the policy later expanded to East Asia and Oceania.

❖ **Primary Objectives:** Enhance trade and economic development.

✓ Strengthen strategic and cultural connections with ASEAN nations.

✓ Draw inspiration from the economic success stories of East Asia.

❖ **Initial Outcomes:** Reduction of trade barriers to facilitate commerce.

✓ Increased inbound tourism from Southeast Asia.

❖ **Act East Policy (Post-2014):** The Act East Policy was a direct evolution of the Look East Policy, emphasizing stronger action and outcomes. In 2011, U.S. Secretary of State Hillary Clinton urged India to play a more active role in the Asia-Pacific, prompting a shift in approach.

✓ In 2014, External Affairs Minister Sushma Swaraj formally declared India was ready to "Act East," a commitment reinforced by Prime Minister Modi.

❖ **Key Advancements**: Greater emphasis on concrete action and outcomes.

✓ Integration of Northeast India as a critical hub for regional engagement.

✓ Recognition of the Indo-Pacific as a strategic and economic priority.

❖ At the 2014 East Asia Summit, PM Modi introduced the 3Cs approach:

✓ Commerce – Expanding trade and economic ties.

✓ Culture – Strengthening historical and cultural linkages.

✓ Connectivity – Building infrastructure and digital networks for seamless integration.

Objectives and Achievements of Act East Policy

❖ **Strategic Expansion:** Extended focus beyond ASEAN to the broader Indo-Pacific region.

✓ Strengthened regional groupings like BIMSTEC, Asia Cooperation Dialogue, and the Indian Ocean Rim Association (IORA).

❖ **Enhanced defense diplomacy**: Sale of BrahMos missiles to the Philippines.

✓ Military logistics pact with Vietnam.

❖ **Economic and Trade Ties:** Reduction in trade barriers.

✓ Greater economic integration with Southeast Asia via Free Trade Agreements (FTAs).

✓ Increased foreign investment flows from the region into India.

✓ India has elevated relations to strategic partnerships with Indonesia, Vietnam, Malaysia, Japan, South Korea, Australia, Singapore, and ASEAN.

✓ India has invited ASEAN countries to join the International Solar Alliance, emphasizing regional integration and effective project implementation.

❖ **Cultural and Soft Power Diplomacy:** Promotion of shared cultural heritage, including Ramayana and Mahabharata traditions and Buddhist linkages.
  ✓ Hosting of cultural events such as the Ramayana Festival with Southeast Asian participation.
  ✓ India aims to revive and strengthen Buddhist and Hindu cultural links to enhance people-to-people connections and regional cooperation.
❖ **Connectivity:** Improved infrastructure development in Northeast India to serve as a gateway to Southeast Asia.
  ✓ **Major projects include:**
    ➢ India-Myanmar-Thailand Trilateral Highway.
    ➢ Kaladan Multi-Modal Transit Transport Project.
    ➢ Rhi-Tiddim Road Project and Border Haats to strengthen connectivity.

Challenges and Areas of Improvement
❖ **Strategic and Economic Challenges:** Environmental impact of urbanization and industrialization in Northeast India.
  ✓ China's Belt and Road Initiative (BRI) presents strong competition by offering attractive financial incentives to Southeast Asian nations.
  ✓ China's BCIM-EC (Bangladesh, China, India, Myanmar Economic Corridor) poses competitive challenges in connectivity and infrastructure.
  ✓ Myanmar's political transition is becoming increasingly challenging for India.
  ✓ Despite its strategic geographical proximity to ASEAN nations, the Northeast is not yet fully integrated into India's Bharatmala and Sagarmala projects.
❖ **Soft Power and Cultural Challenges:** China's claim over Buddhist heritage challenges India's narrative.
  ✓ **Limited linguistic engagement**: Few Indian universities offer courses in Khmer, Bahasa Indonesia, Thai, or Burmese.
❖ **Connectivity Bottlenecks:** Delays in infrastructure projects like the Kaladan Multi-Modal Transit Transport Project.
  ✓ Underdeveloped transport and trade facilities in Northeast India.

Conclusion and Way Forward
❖ The road to greater Act East Policy will require infrastructure development, investment, and addressing security issues to ensure mutual growth and progress.
❖ India's North-East must play a central role in strengthening ASEAN-India ties, benefiting from the region's proximity to South East Asia.
❖ India's connectivity efforts must address infrastructure gaps and ensure seamless integration for improved trade and interaction.
❖ As Southeast Asia becomes increasingly vulnerable to climate change and non-traditional security threats, India's role in regional disaster management, climate diplomacy, and maritime domain awareness is set to grow.
❖ India should also work to expand its network of strategic partnerships by engaging more proactively with middle powers in the Indo-Pacific.

SOCIAL ISSUES, EDUCATION

TECHNOLOGY AND THE CHALLENGE OF EQUITABLE EDUCATION

Context: The promise of technology in education has always been to democratize learning, making quality education accessible to all.

❖ In a country as diverse as India, where socio-economic disparities shape access to resources, technology often widens the digital divide rather than bridging it.

Promise of Technology in Education

❖ Technology has revolutionized education in numerous ways, offering interactive and engaging learning experiences. Adaptive learning technologies personalize education, catering to individual learning styles and paces, thereby improving student outcomes.

❖ These include delivery of quality education; expanding access to education; training and retraining of teachers; preparing students for digital economy; promoting inclusivity and diversity; and automated administrative tasks etc.

❖ In 2018, nearly 90% of rural households had simple mobile phones and 36% had smartphones.
  ✓ In 2022, the proportion of households with smartphones had risen to over 74% and, according to ASER 2024, it has grown further to 84% this year.
  ✓ The proportion of children aged between 14 and 16 years who own a smartphone has risen from 19% to about 31% within a year.

❖ A study revealed that 87% of parents support the integration of technology in schools, recognizing its potential to enhance learning, thereby improving students' understanding and retention of information.

❖ Economic Survey 2024-25 highlights the increase in computer and internet access in schools, which has significantly improved learning outcomes.

Concerns: Technology in Exacerbating Educational Inequalities

❖ Digital Divide(gap between those who have access to digital resources and those who do not):
  ✓ **Lack of Internet Access:** According to the Telecom Regulatory Authority of India (TRAI), as of 2023, India had an internet penetration rate of approximately 50%.
    ➢ Rural areas, in particular, face severe internet connectivity issues.
  ✓ **Affordability of Devices:** Smartphones, tablets, and laptops are essential tools for digital learning.
    ➢ The Annual Status of Education Report (ASER) 2022 highlighted that many students in government schools lacked access to personal digital devices.
  ✓ **Quality of Digital Infrastructure:** Schools in underdeveloped regions often lack adequate digital infrastructure, preventing the smooth implementation of e-learning programs.

❖ **Gender Divide:** In many conservative families, girls have restricted access to mobile phones and the internet.
  ✓ A UNICEF report on digital education in South Asia found that boys were more likely to have access to digital learning tools than girls.

❖ **Language Barriers:** A significant portion of online educational content is available in English, which disadvantages students from non-English-speaking backgrounds.
  ✓ Efforts to develop high-quality regional language content are still inadequate.

❖ **Urban-Rural Disparity:** Private schools in urban areas have seamlessly integrated technology into their teaching methods, while government schools in rural areas struggle with limited resources.

Policy Interventions and Government Initiatives

❖ **National Education Policy (NEP) 2020:** It emphasizes the use of technology to enhance learning while addressing accessibility concerns.
  ✓ It calls for the development of digital infrastructure, particularly in rural areas.

- ❖ **Digital India Campaign**: It aims to transform India into a digitally empowered society and knowledge economy.
  - ✓ It focuses on providing digital infrastructure, digital literacy, and delivering services digitally to ensure that technology reaches the remotest corners of the country.
- ❖ **PM eVIDYA:** It was aimed to provide multi-modal digital education through television, radio, and online platforms, ensuring that students without internet access could continue learning.
- ❖ **DIKSHA (Digital Infrastructure for Knowledge Sharing):** It offers free, high-quality educational content in multiple languages to promote inclusivity.
- ❖ **Bharat Net Project:** Aimed at expanding broadband connectivity to rural areas, BharatNet is crucial in reducing the urban-rural digital divide in education.
- ❖ **National Digital Education Architecture (NDEAR):** It aims to create a unified digital infrastructure to energize and catalyze the education ecosystem.
- ❖ **National Digital Library of India (NDLI):** Managed by the Ministry of Education, NDLI is a virtual repository of learning resources, offering free access to a vast collection of educational materials, including textbooks, articles, videos, and audiobooks, catering to learners at all levels.

Way Forward: Ensuring Equitable Digital Education

- ❖ **Improving Digital Infrastructure:** Expanding affordable internet access, particularly in rural areas, is essential. Public-private partnerships can accelerate the development of reliable digital infrastructure.
- ❖ **Affordable Digital Devices:** Government and corporate initiatives should work towards providing subsidized digital devices to students from marginalized communities.
- ❖ **Local Language Content:** More investment is needed in creating high-quality educational content in regional languages to ensure accessibility for all students.
- ❖ **Teacher Training in Digital Pedagogy:** Educators must be equipped with the necessary digital skills to effectively integrate technology into classrooms. Training programs should focus on using tech-driven teaching methodologies to benefit diverse learners.
- ❖ **Promoting Digital Equity for Girls**: Addressing gender-based barriers to technology access through awareness campaigns and policy measures is crucial for ensuring equitable education.
- ❖ **AI in Education**: Artificial Intelligence is being utilized to create interactive and engaging learning experiences, especially in rural areas, making education more personalized and effective.

Conclusion

- ❖ Technology can either be a great equalizer or a force that deepens educational inequalities. While digital tools have the potential to revolutionize learning, their benefits remain out of reach for millions of students due to infrastructural, financial, and social barriers.
- ❖ Bridging the digital divide requires concerted efforts from the government, private sector, and civil society.
- ❖ Only through inclusive policies, improved access, and targeted interventions can we ensure that technology becomes a catalyst for equitable education rather than a contributor to inequality.

GENERAL STUDIES 3.

ECONOMY

ECONOMIC SURVEY 2024-25: INDIA'S WORKFORCE VULNERABLE TO AI

Context: The Economic Survey 2024-25 called for the creation of "robust institutions," which could help transition workers to medium- and high-skilled jobs, where AI can augment their efforts rather than replace them.

Major Highlights
- The future of work revolves around 'Augmented Intelligence', where the workforce integrates both human and machine capabilities.
  - By leveraging its young, dynamic, and tech-savvy population, India has the potential to create a workforce that can utilize AI to augment their work and productivity.
- **Raising the Quality:** India's employment challenge is not of numbers, but also of raising the overall quality of its workforce.
- **Service-oriented Economy:** India's economy is heavily service-oriented, with a significant portion of its IT workforce engaged in low-value-added services.
  - These roles are particularly susceptible to automation, and a large segment of the population relies on these jobs for their livelihoods.
- The challenge lies in ensuring that the benefits of AI do not come at the expense of the workforce, particularly those in vulnerable positions.

Measures to be Taken
- The survey identifies three types of institutions essential for this transition: Enabling Institutions, Insuring Institutions, and Stewarding Institutions.
  - These entities will help upskill the workforce, preparing them for medium- and high-skill jobs where AI can enhance their capabilities rather than replace them.
- Social Infrastructure encompassing Enabling Institutions,
- Insuring Institutions and Stewarding Institutions to help graduate workforce towards medium-and high-skill jobs.
- India will therefore have to fast track the creation of robust institutions through a tripartite compact between the government, private sector and academia.

Challenges
- Practicality and reliability are core issues that need to be addressed by developers.
- AI also needs significant infrastructure for scaling, which takes time to build.
- AI models have to target efficiency gains without compromising on performance.

Suggestions
- Policymakers must balance innovation with societal costs, as AI driven shifts in the labour market could have lasting effects.
- The corporate sector also must act responsibly, handling the introduction of AI with sensitivity to India's needs.
- A collaborative effort between government, private sector, and academia is essential.

The Way Ahead
- ❖ AI, currently in its early stages, provides India with the opportunity to tackle challenges, strengthen its foundations, and mobilize a nationwide institutional response.
- ❖ The country's predominantly services-driven economy, coupled with its young and dynamic population, offers a fertile ground for leveraging the benefits of emerging technologies.
- ❖ As India stands on the brink of an AI revolution, the Economic Survey urges policymakers to strike a balance between fostering innovation and addressing societal costs.

ECONOMIC SURVEY 2024-25: SHIFT FROM GLOBALIZATION TO GEO-ECONOMIC FRAGMENTATION

Context: The recent Economic Survey 2024-25 highlights a major global economic transition: the backsliding of globalization and the rise of geo-economic fragmentation.
- ❖ The past few decades saw increasing global trade, investments, and economic interdependence, the next era is expected to witness trade restrictions, economic realignments, and shifting supply chains.

In the Era of Globalization: 1980-2022
The following developments were largely driven by open markets, rapid technological advancements, and cross-border investments, leading to efficiency and economic growth.
- ❖ **Demographic and Urbanization Growth:** The world's population grew from 4.4 billion in 1980 to 8 billion in 2022, with urbanization rising from 39% to 57%, driving global connectivity.
- ❖ **Trade Expansion: Global** trade as a share of GDP rose from 39% in 1980 to 60% by 2012, reflecting deeper market integration.
- ❖ **Surge in FDI:** Foreign Direct Investment (FDI) inflows grew from $54 billion in 1980 to over $1.5 trillion in 2019.
- ❖ Overall Economic Growth: The world economy expanded from $11 trillion in 1980 to over $100 trillion in 2022.

The Rise of Geo-Economic Fragmentation
Geo-economic fragmentation refers to a policy-driven reversal of global economic integration, guided by strategic and geopolitical considerations. This shift is characterized by:
- ❖ Trade restrictions and tariffs impacting cross-border commerce.
- ❖ Capital flow restrictions disrupting global investment patterns.
- ❖ Reorganization of supply chains due to shifting geopolitical alliances.
- ❖ Rising protectionism as countries prioritize domestic economic resilience.

Factors Driving Fragmentation
- ❖ **Geopolitical Tensions:** The re-emergence of Cold War-style economic blocs and "friend-shoring." For example: China's expansionism, Ukraine-Russia war, Middle East disruptions.
  - ✓ Conflicts and security concerns reshaping trade relationships.
- ❖ **Increased Trade Barriers:** Trade-restrictive measures have surged, with WTO data showing that trade covered by new restrictions rose from $337.1 billion in 2023 to $887.7 billion in 2024.
- ❖ **Technological Decoupling**: Nations are imposing controls on semiconductors, AI, and critical technologies, leading to fragmented innovation ecosystems.
- ❖ **Environmental and Social Standards:** Western nations imposing one-size-fits-all labor and emission standards are contributing to global economic divisions.

Impact of Geo-Economic Fragmentation
- ❖ **Trade Disruptions & Protectionism:** Global trade growth has slowed down significantly, reflecting a secular stagnation in the world economy.
  - ✓ Between 2020 and 2024, over 24,000 trade and investment restrictions were imposed globally.

- ✓ The IMF warns that today's trade fragmentation is far costlier than during the Cold War, as goods trade-to-GDP ratios have risen from 16% to 45%.
- ✓ Reduced knowledge diffusion due to limited cross-border exchanges hampers innovation and productivity.

❖ **FDI Relocation & Investment Realignment:** Global FDI flows are now concentrated among geopolitical allies.
  - ✓ Emerging markets face greater vulnerability, as they rely on FDI from advanced economies.
  - ✓ Friend-shoring and reshoring of investments to allied nations create uneven economic opportunities.

❖ **China's Strategic Economic Dominance:** China has gained a strategic upper hand in global supply chains, leveraging its manufacturing prowess and resource control:
  - ✓ **Electric Vehicles (EVs):** Disrupting traditional players like Germany and Japan.
  - ✓ **Critical Minerals:** Controls the global supply of lithium, cobalt, nickel, graphite.
  - ✓ **Renewable Energy:** Produces 80% of battery components, 60% of wind turbines, and 80% of solar PV components.
  - ✓ **Rare Earth Processing**: Processes 70% of the world's rare earth minerals, vital for batteries, electronics, and defense.
  - ✓ **Outsourcing Reset:** The world's prior strategy of manufacturing dependence on China is now under reconsideration.

India's Response: Amplifying Deregulation & Economic Freedom

As global markets become more restrictive, India must turn inwards and strengthen domestic economic engines. A pro-business regulatory environment can:
- ❖ Lower business compliance costs, boosting ease of doing business.
- ❖ Enable SMEs to drive employment and innovation.
- ❖ Make India a global manufacturing hub by attracting capital and technology.
- ❖ Improve resilience to external shocks by strengthening internal supply chains.

Path Forward: Deregulation & Economic Reforms

- ❖ **Accelerating Deregulation:** Removing unnecessary licensing, inspection, and compliance burdens on businesses.
- ❖ **State-Level Best Practices:** Encouraging states to adopt pro-growth policies from top-performing regions.
- ❖ **SME Empowerment:** Supporting small and medium enterprises to expand globally.
- ❖ **Trade & Investment Policies:** Despite global fragmentation, India must proactively engage in exports and foreign investments.
- ❖ **Balancing Regulation with Freedom:** Striking the right balance to unleash entrepreneurial potential and enhance competitiveness.

Conclusion: A New Global Economic Order

- ❖ The Economic Survey 2024-25 underscores a critical shift: globalization is retreating, and economic fragmentation is on the rise. Trade restrictions, shifting FDI flows, and China's strategic dominance are shaping a new world order. In response, India must double down on deregulation, empower SMEs, and create an investment-friendly climate to position itself as a leading economic powerhouse.

ECONOMIC SURVEY 2024-25: HIGHLIGHTS

Context: Union Minister of Finance and Corporate Affairs, Nirmala Sitharaman presented the Economic Survey 2024-25 in the Parliament.

About Economic Survey
- ❖ The Economic Survey is a comprehensive review of the country's current economic state and future outlook.
- ❖ It is prepared by the Economic Division of the Department of Economic Affairs under the guidance of the Chief Economic Advisor.

Major Highlights
- ❖ **State of the Economy:** India's real GDP growth estimated at 6.4% in FY25, aligning with its decadal average.
  - ✓ Global GDP grew 3.3% in 2023, slightly higher than IMF's 3.2% forecast for the next five years.
  - ✓ FY26 GDP growth expected between 6.3% and 6.8%.
  - ✓ Retail inflation reduced to 4.9% in FY25 (April-Dec).
  - ✓ Capital expenditure (CAPEX) grew 8.2% YoY post-general elections in 2024.
  - ✓ India's share in global services exports is 7th largest.
- ❖ **Monetary and Financial Sector Developments:** Bank credit grew steadily; asset quality and profitability improved.
  - ✓ Gross non-performing assets (GNPAs) at a 12-year low (2.6% of gross loans).
    - o ₹3.6 lakh crore realized from 1,068 insolvency resolutions.
  - ✓ India's stock markets outperformed emerging market peers.
  - ✓ Resource mobilization from primary markets reached ₹11.1 lakh crore in FY25.
  - ✓ Insurance premiums grew by 7.7%, and pension sector subscribers rose 16%.
- ❖ **External Sector:** Exports grew by 6%, with the services sector up 11.6% (April-Dec FY25).
  - ✓ India ranked 2nd in global telecommunications, computer & information services exports.
  - ✓ FDI inflows increased by 17.9% YoY to USD 55.6 billion in FY25.
  - ✓ Forex reserves stood at USD 640.3 billion, covering 10.9 months of imports.
- ❖ **Prices and Inflation:** Global inflation moderated to 5.7% in 2024.
  - ✓ India's retail inflation reduced to 4.9% in FY25.
  - ✓ RBI and IMF project inflation will align to around 4% by FY26.
- ❖ **Medium-Term Outlook**: India aims for 8% growth to achieve 'Viksit Bharat' by 2047.
  - ✓ Focus on deregulation to empower growth and ease of doing business, particularly for SMEs.
- ❖ **Investment and Infrastructure:** Government capital expenditure grew by 38.8% from FY20 to FY24.
  - ✓ 5853 km of National Highways constructed in FY25 (Apr-Dec).
  - ✓ Renewable energy capacity grew by 15.8% YoY by Dec 2024.
  - ✓ Significant infrastructure projects, including metro expansion and electricity access for rural areas.
- ❖ **Industry :** Industrial growth projected at 6.2% in FY25, driven by electricity and construction.
  - ✓ Automobile sales up by 12.5% in FY24.
  - ✓ India ranks 6th in global patent filings.
  - ✓ The MSME sector is growing, with initiatives like the Self-Reliant India Fund.
- ❖ **Services :** Services sector contribution to GVA increased to 55.3% in FY25.
  - ✓ Services exports grew by 12.8% in FY25 (Apr-Nov).
    - ➢ Indian Railways and tourism sector show strong growth.
- ❖ **Agriculture and Food Management:** Agriculture contributes 16% to GDP in FY24.
  - ✓ Kharif foodgrain production is expected to rise by 89.37 LMT in FY24.
    - ➢ Fisheries and livestock sectors show strong growth.
    - ➢ MSP increases for Arhar and Bajra by 59% and 77%, respectively.

- ❖ **Climate & Environment:** India's non-fossil fuel power generation capacity reached 46.8% of total capacity.
  - ✓ LiFE initiative to drive sustainable living, with potential global savings of USD 440 billion by 2030.
  - ✓ India's carbon sink increased by 2.29 billion tonnes CO2 equivalent.
- ❖ **Social Sector :** Social services expenditure grew at 15% CAGR from FY21 to FY25.
  - ✓ Decline in income inequality, with improvements in rural and urban Gini coefficients.
  - ✓ Government health expenditure up from 29% to 48%, reducing out-of-pocket expenses.
  - ✓ Ayushman Bharat has saved over ₹1.25 lakh crore.
- ❖ **Employment and Skill Development:** Unemployment rate declined to 3.2% in FY24.
  - ✓ Government initiatives supporting women entrepreneurship, including credit and skill development.
  - ✓ Emerging sectors like the digital economy and renewable energy provide job opportunities.
  - ✓ EPFO payroll additions doubled in the last six years.
- ❖ **Labour in the AI Era:** AI expected to surpass human performance in key sectors but faces barriers like reliability and infrastructure.
  - ✓ India's young, tech-savvy population is poised to leverage AI for enhanced productivity.
  - ✓ Collaboration between government, private sector, and academia is crucial to manage AI's societal impact.

Issues and Concerns

- ❖ Global challenges like trade tensions and rising commodity prices may still affect growth.
- ❖ Investment growth has slowed, with government and private sector capital expenditure weak, partly due to elections and global uncertainties.
  - ✓ This poses a challenge for economic expansion.
- ❖ Challenges faced by Micro, Small, and Medium Enterprises (MSMEs), including regulatory burdens that hinder formalization, productivity, and innovation.
- ❖ Employment has grown, particularly for women in agriculture, but wages have declined.
  - ✓ Many new jobs are low-skill, which limits overall economic progress.
- ❖ The services sector faces challenges from AI and skill gaps, with most workers having lower education levels and limited competencies.
  - ✓ Upskilling is crucial for future growth.
- ❖ The textiles sector, a key driver of employment, faces challenges in competitiveness, particularly compared to nations like China and Vietnam.
  - ✓ Simplifying export processes could enhance efficiency.

Conclusion and Way Forward

- ❖ India is on a steady growth path, while globalisation is slowing down. This change brings both challenges and new opportunities. To keep growing, India must focus on economic reforms and take advantage of its young workforce.
- ❖ The Survey emphasizes the need for strategic investments, deregulation, and skill development to unlock India's growth potential and achieve its long-term economic goals

PRIVATE SECTOR INVOLVEMENT IN INDIA'S NUCLEAR SECTOR

Context: The Union government is considering allowing private sector participation to achieve 100 GW of nuclear power capacity by 2047.

About

❖ Traditionally, nuclear power plants in India have been owned and operated only by state-owned Nuclear Power Corporation of India Ltd (NPCIL) and its fully-owned subsidiary Bharatiya Nabhikiya Vidyut Nigam (BHAVINI).

❖ To allow private sector participation government has proposed amendments to key legislations;
   ✓ Atomic Energy Act, 1962, a framework for nuclear energy development and regulation.
   ✓ Civil Liability for Nuclear Damage Act, 2010, ensuring compensation mechanisms for nuclear incidents.

❖ The government will enter into partnerships with the private sector with the motive of;
   ✓ Setting up Bharat Small Reactors,
   ✓ Research & development of Bharat Small Modular Reactor, and
   ✓ Research & development of newer technologies for nuclear energy.

Status of Nuclear power capacity in India

❖ The current installed nuclear power capacity in the country is 8,180 MW, spread across 24 nuclear power reactors.

❖ Capacity Expansion: 10 new reactors (totaling 8 GW) under construction across Gujarat, Rajasthan, Tamil Nadu, Haryana, Karnataka, and Madhya Pradesh.
   ✓ Approval for a 6×1208 MW nuclear plant in Andhra Pradesh in collaboration with the USA.

Benefits of Private Sector Involvement

❖ Faster Capacity Expansion: Private investment will help bridge the financial gap needed for rapid nuclear power growth.

❖ Technological Advancement: Collaboration with private companies drive innovation and bring in global expertise.

❖ Cost Efficiency: Competitive bidding and private participation will help reduce project costs and delays.

❖ Energy Security: Increased nuclear power generation helps India reduce dependence on fossil fuels and meet clean energy goals.

Concerns to Private Sector Entry

❖ **Regulatory Hurdles:** Amendments to existing laws are required to enable private sector participation.

❖ **High Capital Requirement:** Nuclear power projects involve long gestation periods and large upfront investments, which deters private players.

❖ **Liability Concerns:** The Civil Liability for Nuclear Damage Act imposes high liability on operators, making private investment risky.

❖ **Safety and Security:** Nuclear energy requires strict safety protocols, and allowing private firms to operate reactors necessitates robust regulatory oversight.

❖ **Public Perception:** Concerns over nuclear safety, waste management, and radiation risks will face public resistance.

Government steps

❖ India had announced a Rs 20,000 crore R&D mission for development of small modular reactors (SMRs).
   ✓ India is also targeting the deployment of at least five of these indigenously developed reactors by 2033.

❖ NPCIL and National Thermal Power Corporation (NTPC) have signed a supplementary Joint Venture agreement to develop nuclear power facilities in the country.

Way Ahead

- ❖ **Clear Regulatory Framework:** Establish a robust regulatory environment to ensure safety, compliance, and transparency, addressing concerns about accountability and national security.
- ❖ **Public-Private Partnerships (PPPs):** Promote partnerships where the government maintains oversight, while private players handle operations, innovation, and investment, ensuring a balance of interests.
- ❖ **Gradual Implementation:** Start with pilot projects and small-scale initiatives to test private sector involvement, ensuring risk management before large-scale implementation.

BUDGETARY ALLOCATION FOR URBAN DEVELOPMENT

Context: In 2025, the government allocated ₹96,777 crore for urban development, an increase from the previous year, but after adjusting for inflation, this marks a reduction.

Urbanization Growth

- ❖ India's urbanisation is driven by economic distress, unlike the Global North where it followed industrialisation and colonial wealth transfer.
- ❖ India's urbanisation is categorized as "poverty-driven urbanisation" with both rural-to-urban and urban-to-urban migration.
- ❖ The COVID-19 pandemic highlighted the inadequacies of urban planning, with reverse migration showing gaps in infrastructure.

Key Urban Challenges in India

- ❖ Lack of precise data on urban population (2021 Census missing); around 40% of India's population is urban.
- ❖ **Planning Issues:** Spatial plans are outdated, causing overcrowding and slums.
  - ✓ Plans focus on capital growth rather than addressing people's needs.
- ❖ **Climate Change Impact:** Pollution, urban flooding, and heat island effects severely affect cities, especially in Delhi's NCR region.
- ❖ **Governance Challenges:** Despite the 74th Constitutional Amendment, urban planning in Indian cities is controlled by undemocratic bodies.
  - ✓ Cities receive a minimal 0.5% of GDP in intergovernmental transfers.

Initiatives

- ❖ Swachh Bharat Mission-Urban (SBM-U) 2.0 was launched on October 1st, 2021 for a period of five years with a vision of achieving safe sanitation and scientific processing of municipal solid waste in all cities.
- ❖ AMRUT 2.0 was launched on 1st October 2021 to make cities 'self-reliant' and 'water secure'.
- ❖ The Smart Cities Mission was launched to enhance the quality of life in 100 selected cities by providing efficient services, robust infrastructure, and a sustainable environment.
- ❖ The Pradhan Mantri Awas Yojana-Urban (PMAY-U) 2.0 aims to construct 1 crore houses for urban poor and middle-class families over the next five years, with an investment of ₹10 lakh crore and a government subsidy of ₹2.30 lakh crore.
- ❖ **Street Vending Plans:** Development of 100 weekly 'haats' or street food hubs in select cities.
  - ✓ States encouraged to create street-vending plans for more hubs as per local needs

Suggestions and Way Forward

- ❖ The progress has been made towards Sustainable Development Goals (SDGs) but still urban areas struggle with poverty, inequality, and environmental degradation.
- ❖ The challenges faced by Indian cities call for comprehensive national interventions to improve urban planning, governance, and infrastructure.
- ❖ Urban development requires sustained investments, with cities being recognized as growth hubs.

❖ There is a need to focus on sustainable, low-rise, radial development over high-rise buildings to prevent urban sprawl and reduce carbon emissions.

STRENGTHENING RURAL PROSPERITY AND WOMEN'S WORKFORCE PARTICIPATION

Context: The Union Budget 2025-26 aims to foster rural prosperity and resilience by increasing women's workforce participation and supporting their entrepreneurial growth.

❖ This comes at a crucial time when self-employment among rural women is rising, as reflected in the Periodic Labour Force Survey (PLFS) 2023-24.

Rising Women's Workforce Participation and Self-Employment Trends
❖ **Periodic Labour Force Survey (PLFS) Data**
  ✓ The female workforce participation rate has increased to 40.3% in 2023-24 from 22% in 2017-18.
  ✓ The rise is primarily due to a 15.9% growth in self-employment, particularly in rural areas.
❖ **Self-Employment:** A Double-Edged Sword
  ✓ While self-employment provides income opportunities, it is precarious and informal, lacking social security and job benefits.
  ✓ **Key challenges include:**
    ➢ Lack of skill training
    ➢ Limited mobility due to societal norms
    ➢ Barriers in accessing formal credit
    ➢ Heavy domestic and caregiving responsibilities

Contribution of Self-Employment to Economic Growth
❖ International Labour Organization (ILO) Study (2019) Findings
  ✓ Small enterprises and self-employment contribute to two-thirds of total employment globally.
  ✓ In India, self-employment among women is mostly concentrated in agriculture, but there is a growing presence in manufacturing, services, and construction, necessitating targeted policy interventions.
❖ World Bank Study (2024) on Rural Women Entrepreneurs
  ✓ Women-owned enterprises in rural India provide employment to 22-27 million people.
  ✓ Access to formal credit remains a significant challenge, highlighting the need for tailored financial inclusion strategies.

Budget 2025-26: Key Initiatives for Women Entrepreneurs and Workforce Participation
❖ Financial Inclusion Measures
  ✓ ₹5.41 lakh crore sanctioned under Pradhan Mantri Mudra Yojana (PMMY) in 2023-24 for women entrepreneurs.
  ✓ New scheme to support 5 lakh first-time entrepreneurs (women, SCs, and STs) with term loans up to ₹2 crore over five years.
  ✓ Increase in budgetary allocation for women's welfare.
  ✓ Gender allocation in the total budget rose, showing greater commitment to women's economic empowerment.
❖ Strengthening Self-Help Groups (SHGs) and Rural Livelihoods
  ✓ National Rural Livelihoods Mission (NRLM) has integrated rural women into SHGs.
  ✓ SHGs play a crucial role in microfinance, skill development, and entrepreneurship promotion.
❖ Skill Development and Capacity Building
  ✓ Pradhan Mantri Kaushal Vikas Yojana (PMKVY) to provide job-oriented training to rural women.
  ✓ Emphasis on sectoral employment, particularly in:
    ➢ Manufacturing

- ➢ Micro, Small, and Medium Enterprises (MSMEs)
- ➢ Services and construction industries

Sectoral Opportunities for Women's Employment Growth
- ❖ Boost to Manufacturing and MSMEs
  - ✓ MSMEs employ a significant number of women, and budgetary support for MSMEs is expected to:
    - ➢ Enhance women's employment
    - ➢ Promote women-led start-ups
    - ➢ Provide easier access to credit and technology adoption
  - ✓ The budget includes a special package covering financing, regulatory changes, and technology support for MSMEs.
- ❖ Support for Women in Labor-Intensive Sectors
  - ✓ Focus on high-employment sectors like textiles, food processing, and rural industries.
  - ✓ Policy measures to reduce informal employment and improve job security and social security coverage.

Addressing Barriers to Women's Workforce Participation
- ❖ Overcoming Social and Economic Challenges
  - ✓ **Barriers include:**
    - ➢ Unpaid care work and domestic responsibilities
    - ➢ Mobility constraints
    - ➢ Lack of digital and financial literacy
  - ✓ Government Interventions:
    - ➢ Encouragement of working women hubs (MSMEs collaborating to provide hostels, crèches, and senior care facilities).
    - ➢ Promotion of gender-sensitive workplace policies in industries employing large numbers of women.
- ❖ Encouraging Financial Inclusion and Credit Access
  - ✓ Formalizing credit access through women-led banks and financial cooperatives.
  - ✓ Strengthening digital banking services for women entrepreneurs in rural areas.

Way Forward
- ❖ Expanding Social Security and Legislative Protections
  - ✓ Extending social security benefits (pensions, maternity benefits, insurance) to self-employed women.
  - ✓ Strengthening enforcement of equal pay and workplace safety laws.
- ❖ Strengthening Digital and Financial Literacy Programs
  - ✓ Expanding digital literacy to ensure greater participation in online markets and e-commerce platforms.
  - ✓ Bridging the gender gap in technology adoption through targeted training programs.
- ❖ Enhancing Rural Infrastructure for Women Workers
  - ✓ Development of rural business hubs with access to:
    - ➢ Coworking spaces
    - ➢ Childcare and elderly care facilities
    - ➢ Transportation support for working women
- ❖ **Long-Term Vision:** Towards Sustainable Rural Employment
  - ✓ Strengthening public-private partnerships (PPPs) for skill training and employment.
  - ✓ Integrating women-led businesses into global supply chains.
  - ✓ Encouraging eco-friendly entrepreneurship in agriculture, handicrafts, and textiles.

Conclusion
- ❖ The Union Budget 2025-26 lays a strong foundation for rural women's economic empowerment by increasing their participation in self-employment and entrepreneurship.
- ❖ With a multi-pronged approach involving financial inclusion, skill development, and social security, India can harness the full potential of its female workforce.
- ❖ These interventions align with the government's vision of Viksit Bharat (Developed India) and contribute to sustainable, inclusive growth.

ANDHRA PRADESH PROMOTING WORK FROM HOME FOR WOMEN

Context: Andhra Pradesh Chief Minister has announced plans to expand work-from-home (WFH) opportunities, particularly targeting women professionals in the state.

About
- ❖ The Andhra Pradesh IT & Global Capability Centres (GCC) Policy 4.0 is designed to attract top IT companies and facilitate employment growth.
- ❖ A key feature of the policy is encouraging corporations to provide WFH options more liberally. This move aims to:
  - ✓ Foster work-life balance for women professionals.
  - ✓ Ensure equal access to growth opportunities in science and technology fields.
  - ✓ Make employment more accessible for women with familial responsibilities.

Policy on Work-from-Home in India
- ❖ Unlike some countries with formal remote work regulations, India does not have explicit laws governing WFH policies.
  - ✓ Companies determine work hours and expectations through internal employment contracts.
- ❖ The government, however, has encouraged WFH in specific cases, such as maternity leave or roles that permit remote work.
- ❖ Despite the initial surge in WFH adoption during the COVID-19 pandemic, many Indian IT firms have since mandated return-to-office policies.

Arguments in Favour of Work-from-Home
- ❖ **Cost Savings:** WFH has significantly reduced commuting costs and allowed employees to live in more affordable areas, leading to financial benefits for both individuals and organizations.
- ❖ **Improved Work-Life Balance:** WFH can offer greater flexibility to manage work and personal responsibilities, such as childcare or eldercare, which often disproportionately fall on women.
- ❖ **Increased Flexibility:** Employees can manage their time more efficiently, improving work-life balance, especially for women who juggle professional and personal responsibilities.
- ❖ **Higher Energy Levels**: Reduced travel time has enhanced employee productivity and well-being.
- ❖ **Employer Benefits:** Organizations benefit from reduced office rental costs and lower expenses related to client meetings.

Arguments against WFH
- ❖ **Hindered Collaboration:** The absence of physical interactions affects teamwork, trust-building, and problem-solving capabilities.
- ❖ **Organizational Culture Challenges**: WFH weakens social, emotional, and human capital formation, impacting long-term workplace cohesion.
- ❖ **Lack of Recognition:** WFH can make it harder for women to be visible and recognized for their contributions, potentially leading to missed opportunities for promotions and raises.

Way Ahead

❖ **Implement Hybrid Models:** A mix of remote and in-office work can provide flexibility while maintaining collaboration.
❖ **Invest in Digital Infrastructure:** Enhanced communication tools can bridge the gap in teamwork and productivity.
❖ **Develop Inclusive Policies:** Organizations should ensure that remote workers, especially women, receive equal opportunities for growth and leadership roles.

Concluding remarks
❖ Andhra Pradesh's WFH initiative for women has the potential to set a precedent for gender-inclusive employment policies in India.
❖ However, achieving long-term success will require strategic implementation and continuous evaluation of its impact on productivity and workforce engagement.

EXTENSION OF PM-AASHA SCHEME UNTIL 2025-26

Context: The Union Government has approved the continuation of the Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA) Scheme during the 15th Finance Commission Cycle up to 2025-26.

PM-AASHA Scheme
❖ The scheme was launched in 2018 as an umbrella scheme to ensure Minimum Support Price (MSP) to farmers, particularly for pulses, oilseeds, and copra.
❖ It aims to ensure remunerative prices for farmers and price stability in the agricultural sector.

Components of PM-AASHA
❖ Price Support Scheme (PSS): The government procures pulses, oilseeds, and copra at MSP.
  ✓ The Central Nodal Agencies (CNAs) conduct procurement in collaboration with state agencies.
  ✓ Only produce meeting Fair Average Quality (FAQ) standards is procured.
❖ Price Deficiency Payment Scheme (PDPS): It directs compensation payments to pre-registered farmers for the difference between MSP and the market price.
  ✓ There is no physical procurement of produce.
  ✓ It applies to oilseeds and requires transactions through a transparent auction process in notified market yards.
❖ **Private Procurement & Stockist Scheme (PPSS) (Pilot Basis):** It allows states to involve private stockists for oilseed procurement.
  ✓ It is implemented in selected Agricultural Produce Market Committees (APMCs) or districts.

Key Changes in the scheme
❖ In 2024 the Government converged the Price Support Scheme (PSS) & Price Stabilization Fund (PSF) schemes in PM AASHA to serve the farmers and consumers more efficiently.
  ✓ It will help in protecting consumers from extreme volatility in prices of agri-horticultural commodities by maintaining strategic buffer stock of pulses and onion for calibrated release; to discourage hoarding, unscrupulous speculation; and for supplies to consumers at affordable prices.
❖ The Market Intervention Scheme (MIS) was made a component of the integrated scheme of PM-AASHA.
  ✓ The scheme is for perishable agricultural and horticultural commodities like onions, potatoes, and tomatoes.
  ✓ It is implemented when prices fall by at least 10% from the previous normal season.

Significance of the Scheme
❖ Ensures price support to farmers, reducing distress sales.
❖ Enhances procurement efficiency through market-based interventions.
❖ Increases farmer participation in transparent marketing systems.

❖ Prevents extreme price fluctuations, protecting both producers and consumers.

Concerns
❖ Limited implementation: PDPS and PPSS have seen low adoption by states.
❖ Procurement constraints: MSP coverage is not uniform across all crops and regions.
❖ Awareness and accessibility issues: Many farmers lack awareness or face bureaucratic hurdles in registration.
❖ Budgetary concerns: Ensuring adequate funding for procurement operations remains a challenge.

Concluding remarks
❖ The extension of PM-AASHA till 2025-26 reaffirms the government's commitment to farmers' income security and agriculture market reforms.
❖ Strengthening its implementation and addressing challenges can enhance its impact in ensuring remunerative prices for farmers.

VIOLATION AND MISUSE OF THE FEMA

Context
❖ Recently, the Enforcement Directorate (ED) has issued an adjudication order imposing a penalty of over ₹3.44 crore on BBC World Service India (BBC WS India) for alleged violations of the Foreign Exchange Management Act (FEMA) of 1999.
❖ BBC WS India, classified as a 100% Foreign Direct Investment (FDI) company, was found to be in violation of Indian regulations that mandate a cap of 26% FDI for digital media entities under the government approval route.

About the Foreign Exchange Management Act (FEMA), 1999
❖ It was enacted to replace the Foreign Exchange Regulation Act (FERA), 1973, which was considered too restrictive.
❖ It was enacted in response to India's economic liberalization in the 1990s and aimed to ensure compliance with global financial norms, and to facilitate external trade and payments while ensuring the orderly development and maintenance of the foreign exchange market in India.
❖ The Reserve Bank of India (RBI) and the Enforcement Directorate (ED) are the primary regulators enforcing FEMA.

Key Provisions of FEMA
❖ **Current and Capital Account Transactions:** While current account transactions (trade, remittances, etc.) are generally allowed, capital account transactions (investment in foreign assets, debt instruments, etc.) require RBI approval.
❖ **Regulation of Foreign Exchange Holdings**: FEMA permits Indian residents to hold foreign exchange within specified limits but prohibits unauthorized dealings.
❖ **Restrictions on Foreign Direct Investment (FDI):** FEMA governs the inflow and outflow of FDI in India through RBI and government policies.
❖ **Penalties for Non-Compliance:** Violators face monetary fines, asset seizures, and, in severe cases, criminal action under the Prevention of Money Laundering Act (PMLA).

Penalties for Violations
❖ FEMA is a civil law, meaning violations result in monetary penalties, not criminal charges.
  ✓ The ED can impose penalties up to three times the amount involved in the violation.
❖ Compounding of Offenses: FEMA violations can be settled through a compounding process under RBI's supervision, avoiding prolonged litigation.

Common Violations and Misuse of FEMA

- ❖ **Hawala Transactions:** Hawala is an illegal remittance system used to transfer money outside the formal banking network, violating FEMA provisions.
- ❖ **Round-Tripping:** It involves sending funds abroad and bringing them back as FDI to take advantage of tax benefits and hide the source of income.
  - ✓ It is particularly common in tax havens like Mauritius, the Cayman Islands, and Singapore.
- ❖ **Unauthorized Foreign Remittances:** Many businesses and individuals violate FEMA by remitting funds abroad without RBI permission.
  - ✓ For instance, some companies invest in offshore entities without reporting to the authorities, leading to foreign exchange loss for India.
- ❖ **Money Laundering Through Shell Companies:** Shell companies are used to disguise illegal foreign investments.
  - ✓ FEMA violations often involve creating bogus companies abroad, routing illicit funds, and repatriating them under the guise of legitimate transactions.
- ❖ **Crypto-Related Violations:** With the rise of cryptocurrency, many individuals and entities use digital assets to transfer funds outside India without RBI approval, violating FEMA norms.
- ❖ **Violation of Liberalized Remittance Scheme (LRS):** An Indian resident can remit up to $250,000 per financial year for permissible foreign transactions under LRS.
  - ✓ However, many individuals misuse LRS by exceeding limits or using funds for speculative trading in foreign stock markets without proper declarations.

Challenges in Enforcing FEMA
- ❖ **Difficulty in Tracking Offshore Transactions:** Many violations involve complex money flows through multiple offshore accounts, making it difficult for Indian regulators to track illicit activities.
- ❖ **Limited Coordination Between Agencies:** While FEMA is regulated by RBI and ED, coordination with tax authorities, SEBI, and other regulatory bodies remains a challenge.
  - ✓ Multiple agencies like RBI, SEBI, and CBI also regulate forex violations, leading to bureaucratic hurdles.
- ❖ **Use of New-Age Financial Instruments:** The rise of digital banking, cryptocurrencies, and fintech startups has created new avenues for FEMA violations that traditional enforcement mechanisms struggle to address.
- ❖ **Globalization and Tax Havens:** India's high net-worth individuals (HNIs) and corporates often use tax havens to evade FEMA regulations, requiring stronger global cooperation to tackle violations.

Recommended Reforms
- ❖ **Stricter Penalties:** Higher financial penalties and stringent criminal actions against offenders can deter future violations.
- ❖ **Better Surveillance Mechanisms:** AI and big data analytics can be used to track suspicious foreign transactions.
- ❖ **Stronger International Cooperation:** India should enhance collaboration with global financial regulators to track money laundering.
- ❖ **Regulation of Cryptocurrencies:** Clear guidelines and regulations are needed to prevent crypto-related FEMA violations.

AGRICULTURE

STRENGTHENING INDIA'S AGRICULTURAL BACKBONE

Context: Agriculture remains the backbone of India's economy, employing nearly 45% of the workforce and contributing about 16% to the nation's GDP.

❖ Recognizing its pivotal role, India has implemented several initiatives to strengthen this sector.

About the Agriculture Sector in India

❖ Agriculture serves as the backbone of India's economy, playing a pivotal role in ensuring food security, providing employment, and contributing to overall economic development.

❖ It is envisioned as one of the four engines of development (others are MSMEs, Investments, and Exports) in the recently announced Union Budget of 2025-26.

   ✓ These engines are aimed at driving sustainable growth and achieving the vision of a 'Viksit Bharat' (Developed India) by 2047.

Key Farmer-Centric Initiatives To Strengthen India's Agriculture Sector

❖ The Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) scheme has disbursed ₹3.46 lakh crore, while the Pradhan Mantri Fasal Bima Yojana (PMFBY) has provided ₹1.65 lakh crore in claims.

   ✓ The Agricultural Infrastructure Fund (AIF) has sanctioned ₹52,738 crore for over 87,500 projects to improve post-harvest management.

❖ **Minimum Support Price (MSP) Enhancements:** The MSP for paddy has risen from ₹850 per quintal in 2008-09 to ₹2,300 per quintal in 2023-24, while the MSP for wheat has increased from ₹1,080 per quintal to ₹2,425 per quintal during the same period.

❖ e-NAM: Integration of 1410 Mandis with e-NAM since inception across 23 States & 4 UTs.

   ✓ As on 31st December 2024, 1.79 Crore farmers & 2.63 lakh traders have been registered on e-NAM portal.

❖ **Millets (Superfood of India):** Millet production has increased in the last 1 year, reaching 175.72 lakh tonnes in 2023-24 (Final Estimate) from 173.21 lakh tonnes in 2022-23.

   ✓ Productivity has increased by 7% from 1248 Kg/ha to 1337 Kg/ha between 2019 and 2024 (Final Estimate).

Promoting Sustainable Practices: Initiatives like the promotion of millet production and the establishment of a second Gene Bank to safeguard genetic resources for future food security are steps in the right direction.

Kye Focus Area in Union Budget 2025-26

❖ **Prime Minister Dhan-Dhaanya Krishi Yojana:** For developing agri districts programme, covering 100 districts with low productivity, moderate crop intensity and below-average credit parameters, to benefit 1.7 crore farmers.

❖ **Building Rural Prosperity and Resilience:** To address under-employment in agriculture through skilling, investment, technology, and invigorating the rural economy.

   ✓ Phase-1 to cover 100 developing agri-districts.

❖ **Aatmanirbharta in Pulses:** Government to launch a 6-year 'Mission for Aatmanirbharta in Pulses' with focus on Tur, Urad and Masoor.

   ✓ NAFED and NCCF to procure these pulses from farmers during the next 4 years.

❖ **Comprehensive Programme for Vegetables & Fruits:** To promote production, efficient supplies, processing, and remunerative prices for farmers to be launched in partnership with states.

❖ **Makhana Board in Bihar:** To improve production, processing, value addition, and marketing of makhana.
❖ **National Mission on High Yielding Seeds:** To strengthen the research ecosystem, targeted development and propagation of seeds with high yield, and commercial availability of more than 100 seed varieties.
❖ **Fisheries:** For sustainable harnessing of fisheries from the Indian Exclusive Economic Zone and High Seas, with a special focus on the Andaman & Nicobar and Lakshadweep Islands.
❖ **Mission for Cotton Productivity:** A 5-year mission announced to facilitate significant improvements in productivity and sustainability of cotton farming, and promote extra-long staple cotton varieties.
❖ **Enhanced Credit through KCC**: The loan limit under the Modified Interest Subvention Scheme to be enhanced from ₹ 3 lakh to ₹ 5 lakh for loans taken through the KCC.
❖ **Urea Plant in Assam:** A plant with annual capacity of 12.7 lakh metric tons to be set up at Namrup, Assam.

Key Concerns/Challenges & Related Suggestions (Post the Union Budget 2025-26)
❖ **Implementation of New Schemes:** While the budget introduced several new schemes like the Prime Minister Dhan-Dhaanya Krishi Yojana and the Mission for Aatmanirbharta in Pulses, the effective implementation of these programs remains a challenge.
  ✓ Ensuring that the benefits reach the intended beneficiaries and addressing any bureaucratic hurdles will be crucial.
❖ **Access to Quality Seeds and Technology:** Despite efforts to enhance access to quality seeds and modern technology, many farmers still face difficulties in obtaining these resources.
  ✓ The adoption of high-yielding, climate-resilient crop varieties needs to be accelerated to improve productivity.
❖ **Infrastructure and Storage:** Improving post-harvest infrastructure and storage facilities is essential to reduce wastage and ensure better prices for farmers.
  ✓ The budget has allocated funds for this purpose, but timely and efficient execution is necessary.
❖ **Credit Availability:** While the budget has raised the Kisan Credit Card (KCC) loan limit, ensuring that farmers have easy access to credit without cumbersome procedures is vital.
  ✓ Financial literacy and awareness among farmers about available schemes can also help in this regard.
❖ **Market Access and Fair Pricing:** Farmers often struggle with getting fair prices for their produce due to market inefficiencies and lack of direct access to markets.
  ✓ Strengthening market linkages and promoting farmer producer organizations (FPOs) can help address this issue.
❖ **Climate Change and Sustainability:** With changing weather patterns, adopting sustainable agricultural practices becomes imperative.
  ✓ The budget's focus on climate-resilient crops and practices is a step in the right direction, but continuous support and education for farmers are needed.

Conclusion
❖ Strengthening India's agricultural backbone is crucial for the country's socio-economic development.
❖ By implementing farmer-centric initiatives, enhancing budget allocations, and promoting sustainable practices, the government is working towards ensuring food security, providing employment, and boosting overall economic growth.

E-NAM TO BE UPGRADED TO ADDRESS LOGISTICAL CHALLENGES

Context: The Union Agriculture Minister has announced plans to upgrade the National Agricultural Market (e-NAM) to e-NAM 2.0 to resolve logistical hurdles in inter-state and inter-mandi trade.

About e-NAM (2016)

❖ e-NAM is a pan-India electronic trading platform that connects Agricultural Produce Market Committee (APMC) mandis to create a unified national market for agricultural commodities.
  - ✓ Implemented by the Small Farmers Agribusiness Consortium (SFAC) under the Ministry of Agriculture & Farmers' Welfare (MoA&FW).
  - ✓ Provides digital services to traders, farmers, Farmer Producer Organizations (FPOs), and Mandis.
  - ✓ As of December 31, 2024, 1.79 crore farmers and 2.63 lakh traders have registered on the platform.

Key Challenges in e-NAM

❖ Despite integrating 1,361 mandis across 23 states and 4 Union Territories, and facilitating ₹2.79 lakh crore worth of trade, several challenges remain:
  - ✓ **Logistical Issues:** Inefficient transportation causes high transit time and limits distribution efficiency.
  - ✓ **Inadequate Warehousing & Storage:** Lack of proper storage facilities leads to post-harvest losses.
  - ✓ **Limited Digital Literacy & Internet Access:** Many farmers struggle with online platforms.
  - ✓ **Interstate Trade Barriers:** Variations in state APMC laws hinder smooth trade.
    - ➤ Different state tax and compliance norms create complexity.

Key Features of e-NAM 2.0

❖ Integrated Logistics and Transportation Support: Unified Logistics Interface Platform (ULIP) integration for real-time tracking of produce.
  - ✓ Optimized freight options to reduce transit times and improve delivery efficiency.
❖ **Expanded Warehousing and Cold Storage Infrastructure:** The Agricultural Infrastructure Fund (AIF) will offer subsidized loans to promote private investment in storage facilities.
❖ **AI-Driven Price Discovery & Quality Assessment:** AI and Machine Learning (ML) to suggest fair market prices.
  - ✓ Automated quality testing to minimize disputes over product grading.
❖ **Faster Digital Payments & Financial Support:** Direct bank transfers and e-wallets for quick settlements.
  - ✓ Fintech partnerships to provide micro-loans based on transaction history.
❖ **Simplified Interstate Trade:** Introduction of a unified digital pass to ease regulatory compliance.
  - ✓ Standardized tax & compliance framework to facilitate free movement of produce.
❖ **Mobile Accessibility & Vernacular Support:** Voice-based commands and local language options on the e-NAM app.
  - ✓ Digital literacy campaigns to help farmers navigate the platform.

Expected Impact of e-NAM Upgrades

❖ Increased Farmer Participation: Easier access and better incentives will attract more farmers.
❖ Higher Price Realization: Direct market access will reduce middlemen, ensuring fair prices.
❖ Reduced Wastage: Improved storage and transport infrastructure will cut post-harvest losses.
❖ Investment in Logistics Sectors: Investments in supply chain solutions will drive economic growth.

SCIENCE AND TECHNOLOGY

ISRO's 100th Launch from Sriharikota

Context: The Indian Space Research Organisation (ISRO) launched its historic 100th launch from the Satish Dhawan Space Centre in Sriharikota.

About

- ❖ GSLV F15 carried the NVS-02 navigation satellite placing it into a Geosynchronous Transfer Orbit.
  - ✓ The NVS-02 is the second satellite in the NVS series, and part of India's Navigation with Indian Constellation (NavIC).
  - ✓ It is designed to provide accurate positioning services across India.
- ❖ GSLV-F15 is the 17th flight of India's Geosynchronous Satellite Launch Vehicle (GSLV) and 11th flight with Indigenous Cryo stage.
- ❖ Over these 100 launches ISRO has lifted 548 satellites to orbit.

NVS Series

- ❖ These are five second-generation NavIC satellites — NVS-01 to NVS-05 and are planned to enhance the existing constellation.
  - ✓ These satellites incorporate L1 band communication, which broadens NavIC's compatibility and usability for diverse applications.
- ❖ NVS-01, the first of the second-generation satellites, was launched in 2023.
  - ✓ For the first time, an indigenous atomic clock was flown in NVS-01.
- ❖ NVS-02 will help improve NavIC's services, which are used for navigation, precision agriculture, emergency services, fleet management, and even mobile device location services.
  - ✓ It also has a precise atomic clock called the Rubidium Atomic Frequency Standard (RAFS) for accurate timekeeping.

NavIC

- ❖ It is a regional navigation satellite system established by Indian Space Research Organisation (ISRO).
- ❖ NavIC was erstwhile known as Indian Regional Navigation Satellite System (IRNSS).
- ❖ NavIC is designed with a constellation of 7 satellites and a network of ground stations operating 24 x 7.
  - ✓ Three satellites of the constellation are placed in geostationary orbit and four satellites are placed in inclined geosynchronous orbit.
- ❖ The ground network consists of a control centre, precise timing facility, range and integrity monitoring stations, two-way ranging stations, etc.
- ❖ NavIC offers two services: Standard Position Service (SPS) for civilian users and Restricted Service (RS) for strategic users.
  - ✓ It provides location accuracy better than 20 meters and timing accuracy better than 40 nanoseconds across the core service area.
- ❖ The NavIC coverage area includes India and a region up to 1,500 kmbeyond the Indian boundary.
  - ✓ NavIC SPS signals are interoperable with the other global navigation satellite system (GNSS) signals namely GPS, Glonass, Galileo and BeiDou.

Significance

- ❖ The first batch of IRNSS satellites launched in the previous decades has been successful in establishing the Personal Navigation Device (PND) services in the country.

- ❖ The NVS series is the second generation of these satellites that are progressively being deployed to further strengthen the PND ecosystem in the nation.
- ❖ NVS supports various applications, including strategic uses, vessel tracking, time synchronization, train tracking, and life safety alerts.

NEED FOR INDIA'S SOVEREIGN AI MODEL

Context: The question of whether India should develop its own sovereign, foundational AI model has gained prominence as the world increasingly relies on artificial intelligence for various applications.
- ❖ With global tech giants dominating the AI landscape, the idea of India building its own AI model is both ambitious and strategic.

About
- ❖ As artificial intelligence (AI) becomes central to economic and strategic policymaking, nations are racing to establish their leadership in this transformative technology.
- ❖ **The rise of AI foundation models** — large-scale AI systems trained on massive datasets — has raised concerns over technological dependence, data security, and national sovereignty.
- ❖ While countries like the United States and China have developed their own sovereign AI models, India currently relies on models built by foreign corporations such as OpenAI, Google DeepMind, and Meta.

Understanding a Sovereign AI Model
- ❖ A sovereign AI model refers to an AI system developed, trained, and maintained within a country, using its own resources, data, and infrastructure.
- ❖ Unlike AI models built by multinational corporations, a sovereign AI model ensures that control over the data, decision-making processes, and ethical considerations remains in the hands of national stakeholders.

Why Does India Need Its Own Foundational AI Model?
- ❖ **Data Sovereignty and Security:** AI models are heavily dependent on data, and India generates one of the largest pools of digital data in the world.
  - ✓ Relying on foreign AI models raises concerns about data privacy, security, and potential misuse.
  - ✓ A homegrown AI model would ensure that India's sensitive data—ranging from healthcare records to financial transactions—remains within the country.
- ❖ **Reducing Dependence on Foreign Technology:** Currently, India depends on AI systems built by American and Chinese companies.
  - ✓ These models operate under the policies and governance frameworks of their home countries, potentially limiting India's ability to deploy AI in critical areas like defense, governance, and cybersecurity.
  - ✓ Developing an indigenous model would reduce this dependency and allow India to chart its own AI future.
- ❖ **Alignment with Indian Values and Languages:** Existing AI models are primarily trained on English-language datasets and Western-centric perspectives.
  - ✓ A sovereign Indian AI model can be designed to support regional languages and cultural contexts, making it more inclusive for India's diverse population.
  - ✓ It can significantly boost AI adoption in rural and non-English-speaking populations.
- ❖ **Boosting Innovation and Economic Growth:** An indigenous AI model could foster a thriving AI ecosystem in India, encouraging startups, academic institutions, and industry collaborations.
  - ✓ It would create high-skilled jobs, attract investment, and position India as a global AI hub.
- ❖ **National Security and Defense Applications:** AI is increasingly being used in military applications, intelligence gathering, and cybersecurity.
  - ✓ Relying on foreign-built AI models in such domains can pose a significant national security risk.

✓ A sovereign AI model would ensure that India has full control over its defense AI systems.

Challenges in Building a Foundational AI Model in India

❖ **Computational Power and Infrastructure:** Training large AI models requires massive computing resources, including high-performance GPUs and TPUs.
  ✓ India's current supercomputing infrastructure lags behind global AI powerhouses like the US and China.
  ✓ To build a sovereign model, India would need significant investment in data centers, AI chips, and cloud computing.

❖ **Data Scarcity and Quality:** While India generates vast amounts of data, much of it is unstructured, fragmented, and not properly labeled for AI training.
  ✓ The country must focus on improving data collection, annotation, and accessibility to develop high-quality AI models.

❖ **Talent and Expertise:** India has a strong IT workforce, but expertise in AI research, particularly in training foundational models, is still limited.
  ✓ The country needs to invest in AI education, research institutions, and global collaborations to build a skilled AI workforce.

❖ **High Costs and Investment Requirements**: Developing a sovereign AI model requires billions of dollars in funding.
  ✓ The Indian government must work with private sector companies, startups, and academia to secure the necessary investment.
  ✓ Unlike tech giants such as Google and Microsoft, Indian firms have limited financial capacity to fund large-scale AI projects.

❖ **Regulatory and Ethical Challenges:** India must ensure that its AI model adheres to ethical AI principles, including fairness, transparency, and accountability.
  ✓ Clear regulatory frameworks must be established to prevent misuse and bias in AI applications.

What Should India Need To Do?

❖ **Invest in critical foundation models:** Building foundational models for critical areas like national security, healthcare, and governance while relying on global models for less sensitive sectors.
  ✓ India's own foundation models offer unparalleled advantages in cultural representation, data sovereignty, and strategic autonomy.

❖ **Build a DPI For Foundation Model Builders:** India should develop datasets, APIs, tools for labelling and curating data, platforms for delivery of services, fine-tuning to a specific context, etc. It should create this as a mission-mode programme.
  ✓ The initiatives of the AI4Bharat Centre at the Wadhwani School of Data Science and Artificial Intelligence (WSAI) demonstrate that a homegrown model can serve India's multilingual population better.
  ✓ Sarvam AI has already developed Sarvam 1, India's first homegrown large multilingual language model, in collaboration with Nvidia.

❖ **Encourage Advanced AI Research & Translation:** India needs to focus on physical AI (embodied in robots), as well as neurosymbolic reasoning (rule-based logic to enhance AI's decisionmaking).
  ✓ Public-private partnerships, international collaborations, and phased investments in AI research could reduce risks while fostering a robust AI ecosystem.

❖ **Develop National AI infrastructure:** Under its India AI Mission, the govt is planning to create a high-performance AI computing infrastructure comprising over 10,000 GPUs, high performance computing clusters, secure cloud storage, and scalable AI research hubs.
  ✓ Other nations are already developing their 'Nextgen AI Factories' – Denmark, with its Gefion supercomputer, and Japan, through its AI Grid initiative.

Way Forward: A Collaborative Approach

❖ Government, industry, and academia collaborate to create an open-source Indian AI model, supported by public-private partnerships.

❖ India partners with global AI research institutions to leverage existing expertise while ensuring its model aligns with national interests.

❖ The focus is on developing AI models tailored to India's needs, such as AI for agriculture, healthcare, governance, and linguistic diversity.

Conclusion: A Strategic Necessity

❖ While building a sovereign AI model presents significant challenges, it is a strategic necessity for India. AI is set to become a key driver of economic growth, national security, and technological innovation.

❖ India must act decisively to invest in AI research, infrastructure, and policy frameworks to develop a homegrown AI ecosystem.

SPACE

INDIA'S SPACE ECONOMY TO INCREASE FIVE-FOLD

Context: As per the union minister of state for Science & Technology India's space economy is set to grow fivefold to $44 billion in the next decade, with private investments already crossing ₹1,000 crore.

India's share in Space Industry

❖ India's space economy stands at $8 billion contributing 2-3% of the global space economy and this is expected to rise to 8% by 2030 and further to 15% by the year 2047.

❖ With over 400 private space companies, India ranks fifth globally in no. of space companies.

Private players in Space Industry

❖ The number of space startups in India increased to nearly 200 in 2024 from just one in 2022, in just about two years.

❖ The funding received by these start-ups reached a total of $124.7 Mn in 2023 from $67.2 Mn in 2021.

❖ The Skyroot, have launched India's first privately built rocket, Vikram-S, into space, with plans to revolutionize satellite launches.

Regulation of the Private sector in the Space industry in India

❖ **National Space Promotion and Authorisation Centre (IN-SPACe):** It is an autonomous and single window nodal agency in the Department of Space for the promotion, encouragement and regulation of space activities of both government and private entities.

❖ **NewSpace India Ltd (NSIL):** It is mandated to transfer the matured technologies developed by the ISRO to Indian industries.

    ✓ All of them are under the purview of the Ministry of Defence.

Significance of privatization of space sector

❖ **Cost Reduction:** Profit motive drives private companies to reduce costs in space missions and satellite launches.

❖ **Competition & Innovation:** Privatization introduces competition, enhancing efficiency and fostering innovation.

❖ **Commercialization:** Private players enable space applications in sectors like agriculture, disaster management, urban planning, navigation, and communication.

❖ **Autonomy**: Greater decision-making autonomy allows private companies to take on new projects more swiftly.

❖ **Employment & Self-reliance:** Privatization generates jobs, supports modern technology adoption, and helps make the space sector self-reliant.

Challenges

❖ **High Investment Costs:** Space technology requires heavy investment, potentially leading to monopolization by wealthy corporations.

❖ **Specialized Expertise:** Building and operating space tech demands specialized technical skills and resources.

❖ **Protecting intellectual property rights (IPR):** Safeguarding intellectual property rights is essential to encourage innovation and investment.

❖ **International Competition:** Indian private space companies face strong competition from established players like SpaceX and Blue Origin globally.

Steps Taken by Government

❖ **Space Sector Reforms (2020):** Government allowed private sector participation, defining roles of IN-SPACe, ISRO, and NSIL.

❖ **Space Vision 2047**: Aims for Bharatiya Antariksh Station (BAS) by 2035 and an Indian Moon landing by 2040.
  ✓ Gaganyaan follow-on missions & BAS first module by 2028.
  ✓ Next Generation Satellite Launch Vehicle (NGLV) by 2032.
  ✓ Chandrayaan-4 by 2027, to collect moon samples and demonstrate return technology.
  ✓ Venus Orbiter Mission (VOM) by 2028, to study Venus.
❖ **Indian Space Policy, 2023:** Ensures level playing field for Non-Government Entities (NGEs) in space activities.
❖ Venture Capital Fund: Rs. 1000 crore fund for space startups under IN-SPACe over the next 5 years.
❖ **Space Tech Innovation Network (SpIN):** SpIN is a one-of-its-kind public-private collaboration for start-ups and SMEs in the space industry.
❖ Under the amended FDI policy, 100% FDI is allowed in the space sector.

Way Ahead
❖ Private entities are now actively involved in crucial aspects of research, manufacturing, and fabrication of rockets and satellites, fostering a vibrant ecosystem of innovation. It is expected to integrate Indian companies into global value chains.

With this, companies will be able to set up their manufacturing facilities within the country duly encouraging 'Make In India (MII)' and 'Atmanirbhar Bharat' initiatives of the Government.

ENVIRONMENT

CLIMATE CRISIS HAS INTENSIFIED MARINE HEATWAVES ACROSS THE WORLD

Context: In January 2025, marine heatwaves (MHWs) in Western Australia led to the death of over 30,000 fish.

What are Marine Heatwaves?
- ❖ They are periods of extremely high temperatures in the ocean.
- ❖ They occur when sea surface temperatures rise 3-4°C above average for at least five days.
  - ✓ They can last from weeks to years.
- ❖ Climate change is the primary cause, with 90% of excess heat absorbed by oceans.
  - ✓ They have become more frequent, intense, and longer-lasting in recent decades.

Global Presence
- ❖ They are observed in several oceanic regions: North Pacific, North Atlantic, Mediterranean, Caribbean Sea, and parts of the Indian Ocean.
- ❖ They can cause extreme weather events, like tropical storms and hurricanes, and disrupt the water cycle, increasing floods, droughts, and wildfires.

Recent Trends in the Indian Ocean
- ❖ MHWs, once rare in the tropical Indian Ocean, have become annual events.
- ❖ Western Indian Ocean and Bay of Bengal experienced a significant rise in MHWs, with 1.5 events per decade in the western Indian Ocean and 0.5 events per decade in the Bay of Bengal between 1982-2018.

Impacts
- ❖ **Monsoons:** MHWs in the western Indian Ocean and Bay of Bengal influence monsoon patterns, causing drying in central India and increased rainfall in southern India.
  - ✓ These changes are linked to altered atmospheric circulation driven by the heatwaves.
- ❖ **Socio-economic:** MHWs negatively affect coastal communities, aquaculture, fisheries, and tourism.
  - ✓ They can reduce productivity of important species like lobster, snow crab, and scallops.
  - ✓ Disruption of ecosystems can harm the fishing industry and related livelihoods.
- ❖ **Biodiversity and Ecosystem Destruction:** MHWs can cause mass mortality of marine species, forcing them to relocate or change behavior.
  - ✓ Ecosystems, such as kelp forests and coral reefs, are especially sensitive to MHWs.
    - ➢ MHWs contribute to coral bleaching, reducing coral reproductive ability and making them more vulnerable to disease.
  - ✓ Other threats, like ocean acidification and overfishing, compound the damage caused by MHWs.

Strategies to Combat MHWs
- ❖ Slow down ocean warming by reducing fossil fuel emissions (aligning with Paris Agreement goals).
- ❖ Invest in nature-based solutions and apply the IUCN Global Standard for Nature-based Solutions.
- ❖ Build research capacity to monitor MHWs, understand their impacts, and predict future events.
- ❖ Develop global research networks (e.g., Marine Heatwave International Group).

Way Ahead
- ❖ Governments should implement protective measures, such as marine protected areas, to safeguard vulnerable species.
  - ✓ Enforce fishing regulations and catch management to limit economic losses.
  - ✓ Raise awareness among stakeholders, including policymakers, researchers, and the private sector.

INDIA ACHIEVES HISTORIC MILESTONE OF 100 GW SOLAR POWER CAPACITY

Context: India has reached a significant milestone in its renewable energy journey by surpassing 100 gigawatts (GW) of installed solar power capacity.

Growth and Achievements

- India's solar power capacity increased 35 times over the past decade, rising from 2.82 GW in 2014 to 100 GW in 2025.
- As of January 31, 2025, India's total installed solar capacity stands at 100.33 GW, with 84.10 GW under implementation and 47.49 GW under tendering.
- The rooftop solar sector saw remarkable growth, with 4.59 GW of new capacity installed in 2024, reflecting a 53% increase compared to 2023.
- Rajasthan, Gujarat, Tamil Nadu, Maharashtra, and Madhya Pradesh are among the top-performing states contributing significantly to utility-scale solar installations.
- India's solar manufacturing capacity surged from 2 GW in 2014 to 60 GW in 2024, positioning the country as a global leader in solar module production, with an ambitious target of 100 GW by 2030.

Significance of Solar Energy for India

- **Energy Security:** Solar energy helps reduce dependence on fossil fuels and imports, making India more self-reliant in power generation.
- **Environmental Benefits:** Solar power is a clean and sustainable energy source, reducing greenhouse gas emissions and combating climate change.
- **Economic Growth:** The solar industry has created millions of jobs in installation, maintenance, and manufacturing, boosting employment opportunities.
- **Cost-Effectiveness:** The falling costs of solar photovoltaic (PV) panels have made solar power an affordable alternative to conventional energy sources.
- **Rural Electrification:** Solar power provides an effective solution for electrifying remote and off-grid areas, improving the quality of life for millions of Indians.

Key Government Initiatives to Promote Solar Energy

- **National Solar Mission (NSM):** Launched in 2010, this mission aims to achieve 280 GW of installed solar capacity by 2030.
- **PM Surya Ghar Muft Bijli Yojana:** A transformative scheme making rooftop solar a household reality, empowering homes with clean energy.
- **PM-KUSUM Scheme:** Designed to support farmers by promoting solar irrigation pumps and grid-connected renewable energy solutions.
- **Solar Parks Scheme:** Facilitates the development of large-scale solar parks to boost capacity expansion.
- **Production-Linked Incentive (PLI) Scheme:** Encourages domestic manufacturing of solar photovoltaic modules, reducing reliance on imports.
- **Net Metering Policy:** Allows residential and commercial consumers to generate their own solar power and sell surplus electricity to the grid.
- **International Solar Alliance (ISA):** A global initiative led by India to promote solar energy cooperation among solar-rich countries.

Challenges and the Way Ahead

- **Land Acquisition:** Availability of land for large-scale solar projects remains a constraint.
- **Grid Integration:** Ensuring stability and efficiency while integrating intermittent solar energy into the power grid.
- **Financial Constraints:** Investment in infrastructure and technological advancements is needed to sustain long-term growth.

❖ **Storage Solutions:** Development of cost-effective energy storage solutions is crucial for ensuring a stable power supply.

COMMUNITY FOREST RESOURCE (CFR) RIGHTS UNDER THE FOREST RIGHTS ACT (FRA)

Context: An analysis reveals that only three states—Maharashtra, Chhattisgarh, and Odisha—have made notable progress in recognizing Community Forest Resource (CFR) rights under the Forest Rights Act (FRA), 2006. The majority of forest-dwelling communities across India continue to face significant hurdles in securing these rights.

Forest Rights Act (FRA), 2006: A Landmark Legislation

Background:

Before the enactment of the FRA, 2006, Scheduled Tribes (STs) and Other Traditional Forest Dwellers (OTFDs) lacked legal recognition over their ancestral forest lands.

❖ Colonial forest laws and post-independence conservation policies often labeled them as encroachers.
❖ The FRA was introduced to correct these historical injustices and provide a framework for recognizing forest land and resource rights.

Key Provisions

❖ **Recognition of Rights:** Grants STs and OTFDs the right to hold, live, and use forest land for habitation and livelihood.
❖ **Community Forest Resources (CFR):** Recognizes community rights over customary common forest lands for management and conservation.
❖ **Critical Wildlife Habitats:** Identifies and protects ecologically sensitive areas while ensuring wildlife conservation.
❖ **Sustainable Use & Conservation**: Emphasizes responsible use of forest resources while preserving biodiversity.

Community Forest Resource (CFR) Rights: A Special Category

❖ Under Section 3(1)(i) of the FRA, 2006, CFR rights empower Gram Sabhas (village councils) to legally manage their traditional forests. These rights ensure community-led conservation and sustainable use of forest resources.

Key Features of CFR Rights:

❖ **Ownership & Governance:** Gram Sabhas are recognized as the governing body for community forests.
❖ **Sustainable Use:** Allows communities to harvest non-timber forest produce (NTFP) like honey, bamboo, and medicinal plants.
❖ **Forest Conservation:** Enables communities to protect forests from deforestation, mining, and external threats.
❖ **Customary Rights:** Recognizes traditional knowledge in forest conservation.
❖ **Protection from Eviction:** Communities cannot be displaced without their explicit consent.

Challenges Hindering CFR Implementation

Displacement Due to Conservation & Development Projects:

❖ A study titled 'Democratising Forest Governance: Challenges Old and New' found that over 1,00,000 forest dwellers have been displaced due to protected areas created by the National Tiger Conservation Authority (NTCA).
❖ More than 3,00,000 hectares of forest land have been diverted for mining and infrastructure projects.

Slow & Limited Recognition of CFR Rights:

❖ Maharashtra (36%), Chhattisgarh (24%), and Odisha (10%) have made progress, but most states lag.
❖ States like Jharkhand, Gujarat, and Karnataka have recognized less than 2% of potential CFR areas.

Conflicting Legal Frameworks:

- ❖ Overlapping laws—Indian Forest Act, 1927, Wildlife (Protection) Act, 1972, and Forest (Conservation) Act, 1980—create ambiguities in FRA implementation.
- ❖ These conflicts often delay CFR recognition.

Weak Institutional & Financial Support:
- ❖ Many Gram Sabhas lack resources, technical expertise, and funds for effective forest management.
- ❖ Lack of government investment in community-led conservation efforts weakens CFR governance.

Lack of Awareness & Political Will:
- ❖ Forest dwellers often remain unaware of their rights under the FRA.
- ❖ Administrative delays & bureaucratic hurdles further slow down claim processing.

Successful CFR Implementations in India
Mendha-Lekha, Maharashtra (2009):
- ❖ First village in India to receive CFR rights over 1,800 hectares of forest.
- ❖ Gram Sabha-led bamboo harvesting & conservation improved local livelihoods.

Niyamgiri, Odisha (2013):
- ❖ The Dongria Kondh tribe exercised CFR rights to stop bauxite mining in the Niyamgiri hills.
- ❖ The Supreme Court upheld their rights, marking a historic victory for tribal self-governance.

CFR Rights & India's Climate Goals
- ❖ **FRA's Role in Carbon Sequestration:** India has committed to sequestering 2.5 gigatonnes of CO_2 equivalent through forest conservation.
  - ✓ CFR rights contribute to global climate initiatives, such as Reducing Emissions from Deforestation and Forest Degradation (REDD+).

Way Forward: Strengthening CFR Implementation
- ❖ **Expedite Claim Processing:** States should streamline bureaucratic procedures to recognize CFR claims faster.
- ❖ **Capacity Building for Gram Sabhas**: Training & technical support should be provided for sustainable forest management.
- ❖ **Strengthen Legal Protections:** Ensure stronger safeguards against land encroachment & corporate exploitation.
- ❖ **Increase Awareness & Community Participation:** Awareness campaigns should educate forest dwellers about their rights under the FRA.
- ❖ **Financial & Institutional Support:** Governments must invest in community-led conservation programs.

Conclusion
- ❖ The Forest Rights Act (FRA), 2006, particularly Community Forest Resource (CFR) Rights, is a crucial step toward decentralized forest governance in India. Recognizing the role of tribal and forest-dwelling communities can enhance environmental conservation, social justice, and economic security.
- ❖ However, bureaucratic inefficiencies, legal conflicts, and lack of awareness continue to hinder its implementation. Strengthening institutional support and ensuring timely recognition of CFR rights is essential for protecting both forest ecosystems and the rights of forest-dependent communities.

CONCERN OVER MOVING AFRICAN CHEETAHS TO INDIA: STUDY

Context: A new study by the Centre for Wildlife Studies (CWS), has expressed concern over the translocation of the African cheetahs to India.

About

❖ The study examines the ethical, ecological and welfare challenges associated with the translocation of African cheetahs to India.

❖ Project Cheetah Overview: 20 African cheetahs (8 from Namibia in Sept 2022, and 12 from South Africa in Feb 2023) were introduced into Kuno National Park, Madhya Pradesh, India.

    ✓ Importation Plans: Plans to import 12 cheetahs annually until a viable population is established.

Major Highlights

❖ **Challenges Faced by Cheetahs:** The cheetahs have experienced significant stress, with over 90 immobilisations and frequent veterinary care.

    ✓ The mortality rate was 40%-50% in the first phase of the project, far below the expected survival rate of 85%.

    ✓ The project has raised concerns about the physical and mental health of the cheetahs due to their ongoing stress.

❖ **Challenges of the Project:**

    ✓ **Conservation Challenges:** African cheetah populations are already at risk, with only around 6,500 mature individuals left in the wild.

    ✓ **Sustainability Issues:** Reliance on continuous imports from Africa is seen as ecologically unsustainable and ethically problematic.

Cheetah

❖ Cheetah (Acinonyx jubatus), is one of the world's most-recognizable cats, known especially for its speed. In India, the cheetah population used to be fairly widespread.

❖ The cheetah is believed to have disappeared from the Indian landscape in 1947 when Maharaja Ramanuj Pratap Singh Deo of Koriya princely state hunted down and shot the last three recorded Asiatic cheetahs in India.

1. The cheetah was officially declared extinct by the Indian government in 1952.

❖ Since the 1940s, the cheetah has gone extinct in 14 other countries – Jordan, Iraq, Israel, Morocco, Syria, Oman, Tunisia, Saudi Arabia, Djibouti, Ghana, Nigeria, Kazakhstan, Pakistan and Afghanistan.

Reason for Extinction

❖ Over-hunting was a major contributing factor.

❖ The decimation of its relatively narrow prey base species and

❖ The loss of its grassland-forest habitat.

Difference between Asiatic Cheetah and African Cheetah

Asiatic Cheetah (Acinonyx jubatus venaticus)	African Cheetah (Acinonyx jubatus jubatus)
IUCN status: critically endangered.	IUCN status: vulnerable.
Distribution: Less than 50 cheetahs are left in the wild.	Distribution: Around 6,500-7,000 African cheetahs are present in the wild.
Characteristics: Smaller and paler than the African cheetah.	Characteristics: They are bigger in size as compared to Asiatic Cheetah.

Suggestions

❖ Call for Justice-Informed Approach: Researchers advocate for a more inclusive and participatory conservation model, considering diverse knowledge systems, values, and local consent.

❖ Focus on Sustainable Coexistence: Conservation efforts should aim at maintaining sustainable spaces for both humans and wildlife, rather than causing division and distress.

ENERGY

INDIA'S NUCLEAR ENERGY ROADMAP: UNION BUDGET 2025-26

Context: The government has set an ambitious target of achieving 100 GW nuclear power capacity by 2047, aligning with the objectives of Viksit Bharat to ensure energy security, sustainability, and reduced dependency on fossil fuels.

Key Highlights of the Nuclear Energy Mission

- ❖ **Capacity Target:** 100 GW by 2047 (Current capacity: 8 GW).
- ❖ **Small Modular Reactors (SMRs):** ₹20,000 crore allocation for R&D and indigenous SMR development.
  - ✓ **Goal:** Five operational SMRs by 2033.
- ❖ **Private Sector Participation**: Proposed amendments to key legislations:
  - ✓ Atomic Energy Act, 1962 – Framework for nuclear energy development and regulation.
  - ✓ Civil Liability for Nuclear Damage Act, 2010 – Ensuring compensation mechanisms for nuclear incidents.
- ❖ **Capacity Expansion:** 10 new reactors (totaling 8 GW) under construction across Gujarat, Rajasthan, Tamil Nadu, Haryana, Karnataka, and Madhya Pradesh.
  - ✓ Approval for a 6×1208 MW nuclear plant in Andhra Pradesh in collaboration with the USA.
- ❖ **Nuclear Partnerships:** Collaboration with the private sector to develop Bharat Small Reactors (BSRs) and Bharat Small Modular Reactors (BSMRs).

Bharat Small Reactors (BSRs) & Bharat Small Modular Reactors (BSMRs)

- ❖ The government is advancing nuclear energy expansion through BSRs and BSMRs, ensuring a scalable and efficient power supply for industries and remote areas.

Bharat Small Reactors (BSRs)

- ❖ 220 MW Pressurized Heavy Water Reactors (PHWRs) with a strong safety and operational track record.
- ❖ Designed for reduced land requirements, making them suitable for industrial hubs (e.g., steel, aluminum, and metals) to aid in decarbonization efforts.
- ❖ Public-Private Collaboration:
  - ✓ The private sector provides land, cooling water, and capital.
  - ✓ Nuclear Power Corporation of India Limited (NPCIL) manages design, quality assurance, and operations.

Bharat Small Modular Reactors (BSMRs)

- ❖ **Definition:** Advanced nuclear reactors with a power capacity of up to 300 MW(e) per unit.
- ❖ **Modular Construction:** Factory-fabricated components for faster deployment.
- ❖ **Applications:**
  - ✓ Coal plant repurposing
  - ✓ Off-grid power generation
  - ✓ Grid stability with renewables
  - ✓ Hydrogen co-generation (high-temperature gas-cooled reactors)

Government Initiatives for Nuclear Expansion

- ❖ India's nuclear roadmap includes multiple initiatives to scale up nuclear capacity, enhance R&D, and integrate advanced reactor technologies.
- ❖ **Planned Expansion:** Increase nuclear capacity from 8,180 MW to 22,480 MW by 2031-32.
- ❖ **New Projects:** 10 additional reactors in pre-project stages, aiming for completion by 2031-32.
- ❖ **Fast Breeder Reactor (FBR) Development:**

- ✓ Prototype Fast Breeder Reactor (PFBR) – 500 MW achieved critical milestones in 2024, paving the way for India's closed nuclear fuel cycle strategy.
- ❖ **New Uranium Discovery:** Extended the life of Jaduguda Mines by 50+ years.
- ❖ **Public-Private Collaboration:** NPCIL & NTPC formed the ASHVINI JV to develop nuclear power plants under existing regulatory frameworks.

Safety, Sustainability & Global Commitments

- ❖ **Safety Standards:** Indian nuclear power plants adhere to stringent safety measures, with radiation levels well below global benchmarks.
- ❖ **International Commitments:** India aligns with COP26 targets to achieve 500 GW non-fossil fuel-based energy by 2030 and fulfill its Paris Agreement obligations.
- ❖ **Thorium Utilization:** R&D on Molten Salt Reactors to leverage India's abundant thorium reserves for long-term energy security.

Conclusion

- ❖ The Union Budget 2025-26 underscores India's commitment to a nuclear-powered future, reducing carbon emissions and securing energy reliability.
- ❖ The Nuclear Energy Mission for Viksit Bharat positions India as a global leader in advanced nuclear technology, with a strategic push toward indigenous innovation, public-private partnerships, and regulatory reforms.
- ❖ With robust policy support and technological advancements, India's nuclear sector is poised for unprecedented growth, solidifying its role in a clean energy-driven future.