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RBI Cuts Repo Rate

Why in News? The Reserve Bank of India (RBI), India's central bank, has made a significant monetary policy decision. The cut in the repo rate by 25 basis points (0.25%) and the reduction of the growth projection from 6.7% to 6.5% signal a shift in the economic outlook.

Why Important For UPSC?

Prelims : Repo Rate/ other related topics

Mains : How these rates affect the Economy ?

Why did the RBI Cut the Repo Rate?

The RBI likely cut the repo rate due to several possible factors, based on typical economic indicators:

- **Slower Economic Growth**: The lowering of the growth projection from 6.7% to 6.5% suggests the economy is not expanding as expected, possibly due to weaker demand, global uncertainties, or domestic challenges like reduced industrial output or consumption.
- **Controlled Inflation**: If inflation has been within the RBI's target range (typically 2-6%, with a 4% midpoint), the central bank might have room to ease monetary policy to stimulate growth.
- **Global Economic Conditions**: External factors, such as a slowdown in global trade or lower commodity prices (e.g., oil), might have prompted the RBI to support the economy with cheaper credit.
- **Support for Businesses and Consumers**: A rate cut reduces borrowing costs, encouraging investment and spending, which can help revive economic activity..

What will be its impacts?

The repo rate cut is expected to have the following effects:

- **Lower Borrowing Costs**: Banks will face lower costs when borrowing from the RBI, likely passing some of this benefit to customers through reduced loan interest rates (e.g., home loans, car loans).

- **Boost to Investment**: Cheaper loans can encourage businesses to invest in expansion or new projects, potentially increasing employment and production.
- **Increased Consumer Spending**: With lower EMI (equated monthly installment) burdens, households may spend more on goods and services, boosting demand.
- **Potential Inflation Risk**: Easier money supply could lead to higher inflation if demand outpaces supply, though the RBI likely believes this risk is manageable given the growth slowdown.
- **Stock Market Reaction**: Markets may rally initially due to expectations of economic stimulus, though the lowered growth forecast might temper gains.
- **Weaker Rupee**: Lower interest rates could reduce foreign investment inflows, putting pressure on the Indian rupee against other currencies.

What is the Repo Rate?

The **repo rate** is the interest rate at which the RBI lends money to commercial banks for short-term needs, typically against government securities. It's a key tool of monetary policy:

- When the RBI lowers the repo rate, it makes borrowing cheaper for banks, encouraging them to lend more to businesses and individuals.
- When it raises the repo rate, it tightens money supply by making loans costlier, helping control inflation.
- A 25 basis point cut means the rate drops by 0.25% (e.g., from 6.5% to 6.25% if that was the previous rate).

How does it affect the overall Economy?

The repo rate influences the economy in several ways:

- **Liquidity and Credit**: A lower repo rate increases liquidity (available money) in the banking system, making credit more accessible. This can stimulate economic activity, especially in sectors like real estate, automotive, and manufacturing.
- **Inflation Control**: By adjusting the rate, the RBI balances growth and inflation. A cut supports growth but may risk inflation if overdone.
- **Investment and Growth**: Lower rates attract businesses to borrow for capital expenditure, driving GDP growth. However, the reduced growth projection to 6.5%

suggests the RBI anticipates challenges in achieving higher growth despite this stimulus.

- **Savings and Deposits**: Lower rates might reduce returns on bank deposits, prompting savers to seek alternatives like stocks or mutual funds, potentially shifting money flow in the economy.
- **Export Competitiveness**: A weaker rupee (due to lower rates) can make Indian goods cheaper abroad, boosting exports, though imports (e.g., oil) become costlier.

Conclusion:

The RBI's decision to cut the repo rate by 25 basis points on April 9, 2025, reflects a strategy to support a slowing economy, as indicated by the revised growth projection of 6.5%. While it aims to spur investment and consumption, the impacts will depend on how banks pass on the rate cut, global conditions, and inflation trends.

Cabinet Committee on Security (CCS)

Why in News? The approval of the Rs 63,000-crore deal for 26 Rafale-M fighter jets by the Cabinet Committee on Security (CCS) on April 9, 2025, is a significant development in India's defense and strategic landscape.

Importance for UPSC Prelims & Mains Exam:

Prelims: Cabinet Committes/The role of the CCS. Details about INS Vikrant, Rafale-M, or Project-75.

Mains: **GS Paper II (Polity & Governance)**: The role of the CCS in national security decisions ties into governance structures and executive authority. It's a case study for how cabinet committees function in India.**GS Paper II (International Relations)**: The deal strengthens India-France strategic partnership, relevant for discussing bilateral ties, defense cooperation, and India's foreign policy in the Indo-Pacific.

GS Paper III (Security): It addresses internal and external security challenges, maritime security, and self-reliance in defense (e.g., the transition to indigenous TEDBF). Questions on defense modernization or India's naval strategy could draw from this.

Key Points of the News:

CCS Approval: On April 9, 2025, the CCS, chaired by PM Narendra Modi, approved the Rs 63,000-crore deal for 26 Rafale-M jets for the Indian Navy.

Deal Details: Includes 22 carrier-compatible single-seater jets and 4 non-carrier twin-seater trainers. Delivery begins in 3.5 years, completing in 6.5 years.

Strategic Purpose: Enhances naval air power for INS Vikrant and INS Vikramaditya, filling gaps until the indigenous TEDBF is ready.

French Connection: A government-to-government deal, likely to be signed during the French Defence Minister's visit in April 2025.

Pending Submarine Deal: Three additional Scorpene-class submarines await CCS approval, building on Project-75 with Mazagon Dock Shipbuilders Ltd. (MDL) and France's Naval Group.

Operational Context: Rafale-M performance was observed during the Varuna exercise, and minor modifications are needed for Indian carrier lifts.

About Cabinet Committee on Security (CCS):

- **Definition**: The CCS is the apex decision-making body on matters of national security, defense, and strategic importance. Chaired by the Prime Minister, it includes key ministers like Defence, Home, External Affairs, and Finance.
- **Role**: It approves major defense procurements, assesses security threats, and formulates policies on military and internal security. The Rafale-M deal exemplifies its authority in clearing high-value, sensitive contracts.
- **Significance**: Reflects centralized executive control over critical decisions, ensuring coordination across ministries.

Types of Cabinet Committees:

Cabinet committees are smaller groups of ministers formed to handle specific tasks, easing the Cabinet's workload. They are of two types:

Standing Committees: Permanent bodies with defined roles:

Cabinet Committee on Security (CCS): Focuses on defense, security, and strategic affairs (e.g., Rafale-M approval).

Cabinet Committee on Economic Affairs (CCEA): Handles economic policies and projects (e.g., railway projects).

Cabinet Committee on Political Affairs (CCPA): Addresses political and governance issues.

Cabinet Committee on Parliamentary Affairs: Manages legislative agendas.

Appointments Committee of the Cabinet (ACC): Oversees senior bureaucratic appointments.

Ad Hoc Committees: Temporary, formed for specific issues (e.g., a committee for a one-time policy review).

Modernisation of Command Area Development and Water Management (MCADWM)

Why in News ? The Union Cabinet has recently approved the "Modernisation of Command Area Development and Water Management (MCADWM)" sub-scheme under the Pradhan Mantri Krishi Sinchayee Yojana (PMKSY). This initiative reflects the government's ongoing commitment to improving water management and supporting farmers, especially those with small landholdings, amid challenges like **water scarcity and climate change**.

Why it is important ?

Prelims : About MCADWM)/ Other related schemes

Mains : GS 3 -Agriculture/Farmers Issues/Reform/ Challenges of **water scarcity and climate change**

Key Points of the News:

Approval and Funding: The Union Cabinet approved the MCADWM sub-scheme with an initial outlay of Rs1,600 crore for the financial year 2025-26.

Objective: The scheme aims to modernize India's irrigation infrastructure, focusing on improving the water supply network from canals and other sources to designated farming clusters.

Target Beneficiaries: It prioritizes farmers with small landholdings by enhancing water-use efficiency, ensuring equitable water distribution.

Technology Integration: Advanced technologies like Supervisory Control and Data Acquisition (SCADA) and the Internet of Things (IoT) will be employed to optimize water management.

Sustainability Goals: Beyond modernization, the scheme seeks to promote sustainable farming practices, contributing to long-term agricultural resilience.

Parent Scheme: MCADWM operates as a sub-scheme under PMKSY, aligning with the national mission to expand irrigation coverage and improve water efficiency.

Other Related Schemes:

- **Pradhan Mantri Krishi Sinchayee Yojana (PMKSY)**: Launched in 2015, PMKSY is the overarching program that includes MCADWM. It focuses on "Har Khet Ko Pani" (water for every field) and "Per Drop More Crop," emphasizing micro-irrigation and efficient water use.
- **Command Area Development and Water Management (CADWM)**: The original CADWM program, now being modernized under MCADWM, was designed to bridge the gap between irrigation potential created and utilized, improving on-farm water management.
- **National Mission for Sustainable Agriculture (NMSA)**: This mission promotes sustainable farming practices, including efficient water use, soil health management, and climate resilience, aligning with MCADWM's goals.
- **Micro Irrigation Fund (MIF)**: Managed by NABARD, this fund supports the adoption of micro-irrigation systems like drip and sprinkler irrigation, which ties into MCADWM's focus on water efficiency.
- **Atal Bhujal Yojana**: A groundwater management scheme that encourages community participation in water conservation, indirectly supporting surface irrigation modernization efforts like MCADWM.

These schemes collectively aim to address water scarcity, enhance irrigation access, and promote sustainable agriculture, reinforcing the significance of the MCADWM initiative within India's policy framework.

Narcotics Control Bureau (NCB)

Why in News? The NCB has recently seized 30.4 kg of methamphetamine ('Yaba') tablets worth Rs 24.32 crore in two operations in Silchar, Assam.

- Three individuals were arrested, signaling a targeted crackdown on drug trafficking networks.
- The operation involved coordination between NCB, Assam Police, and CRPF, showcasing inter-agency collaboration.

Why Important for UPSC Prelims & Mains?

For UPSC Prelims:

- Knowledge of NCB's role, structure, and mandate/ NDPS Act, 1985.
- Golden Triangle.

For UPSC Mains:

- **General Studies Paper II (Governance & Polity)**:
- Role of NCB in enforcing the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985.
- Coordination between central and state agencies (e.g., NCB, Assam Police, CRPF) reflects federal governance challenges.

General Studies Paper III (Internal Security):

- Drug trafficking as a non-traditional security threat, linked to organized crime, terrorism, and insurgency in Northeast India.
- Challenges in border security, given the porous India-Myanmar border and smuggling routes.

- Socio-economic implications of drug abuse, especially among youth, and its impact on national development.

About Methamphetamine ('Yaba')

Methamphetamine is a powerful, highly addictive stimulant that affects the central nervous system. It is commonly referred to as "**Yaba" in Southeast Asia**, especially in countries like Thailand, Myanmar, and Bangladesh. The word "Yaba" means "crazy medicine" in Thai, reflecting its intense psychoactive effects.

Composition and Appearance:

- **Main Components:** Methamphetamine and caffeine.
- **Form:** Usually produced as small, colorful pills (red, orange, or green).
- **Usage:** Often swallowed or crushed and smoked, but can also be injected.

About Narcotics Control Bureau (NCB):

The **Narcotics Control Bureau (NCB)** is India's apex agency tasked with combating drug trafficking and abuse of narcotic drugs and psychotropic substances. Established under the **Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985**, it serves as the nodal agency for coordinating drug law enforcement, implementing anti-drug policies, and ensuring compliance with India's international obligations under various UN conventions.

Key roles :

- **Enforcement**: Conducting operations to seize illegal drugs, dismantle trafficking networks, and arrest offenders.
- **Coordination**: Acting as a liaison between central and state agencies, including police, customs, and paramilitary forces, to ensure cohesive action against drug-related crimes.
- **Intelligence Gathering**: Collecting, analyzing, and disseminating intelligence on drug trafficking routes, cartels, and trends.
- **International Cooperation**: Collaborating with global agencies like the UN Office on Drugs and Crime (UNODC), Interpol, and counterparts in countries like Myanmar and Thailand to curb cross-border trafficking.
- **Policy Implementation**: Supporting the government's vision for a "drug-free India" through prevention, awareness, and enforcement.

- **Monitoring Controlled Substances**: Regulating the legal use of narcotic drugs and psychotropic substances for medical and scientific purposes while preventing their diversion to illicit markets.

Structure:

- **Ministry**: NCB operates under the **Ministry of Home Affairs (MHA)**, Government of India.
- **Headquarters**: Located in **New Delhi**, it oversees operations across the country.
- **Leadership**: Headed by a **Director General** (typically a senior IPS officer), appointed by the central government.
- **Zonal Offices**: NCB has **zonal units** in major cities like Mumbai, Kolkata, Chennai, Delhi, Ahmedabad, Guwahati, Chandigarh, Jammu, Lucknow, and others. These units handle regional operations and coordinate with state authorities.
- **Sub-Zonal Units**: Smaller offices under zonal units for localized enforcement.
- **Personnel**: Comprises officers from the Indian Police Service (IPS), Indian Revenue Service (IRS), paramilitary forces, and specialized staff trained in narcotics control. Deputation from state police and other agencies is common.
- **Specialized Teams**: Includes intelligence units, surveillance teams, and legal experts to handle complex drug-related cases.

Mandate:

The NCB's mandate is derived from the **NDPS Act, 1985**, and aligns with India's commitments under international conventions like the **UN Single Convention on Narcotic Drugs (1961)**, **Convention on Psychotropic Substances (1971)**, and **Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988)**. Key mandates include:

Prevent and Combat Drug Trafficking: Target illicit production, smuggling, and distribution of narcotic drugs and psychotropic substances.

Enforce NDPS Act: Investigate and prosecute offenses under the Act, including those involving cannabis, opium, heroin, cocaine, synthetic drugs (e.g., methamphetamine), and precursor chemicals.

Regulate Legal Trade: Oversee the manufacture, transport, and use of controlled substances for legitimate purposes (e.g., morphine for medical use).

Demand Reduction: Support awareness campaigns, rehabilitation programs, and coordination with NGOs to reduce drug abuse.

International Obligations: Ensure compliance with global anti-drug frameworks and assist in extradition or mutual legal assistance in drug-related cases.

Asset Forfeiture: Trace and seize assets derived from drug trafficking under the NDPS Act's provisions.

Training and Capacity Building: Train state police and other agencies in narcotics enforcement techniques.

About Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985:

The **NDPS Act, 1985**, is India's primary legislation to combat drug trafficking and abuse while regulating the legal use of narcotic drugs and psychotropic substances. Enacted on **September 14, 1985**, it replaced the Opium Acts and Dangerous Drugs Act to address modern challenges posed by drug trafficking and addiction. The Act has been amended several times (1988, 2001, 2014) to strengthen enforcement and address emerging issues like synthetic drugs.

Key Provisions

Narcotic Drugs: Includes cannabis (marijuana, hashish, charas), opium, poppy straw, heroin, cocaine, and derivatives.

Psychotropic Substances: Synthetic drugs like methamphetamine, LSD, and others listed in the Act's schedules.

Controlled Substances: Chemicals (e.g., precursor chemicals like acetic anhydride) used in drug production, regulated to prevent diversion.

Offenses and Penalties:

Production, Manufacture, Sale, and Trafficking:

- Rigorous imprisonment (RI) of **7-20 years** (depending on the drug and quantity) with no bail for major offenses.
- Death penalty possible for repeat offenders in cases involving large quantities of certain drugs (post-2014 amendment).

Possession for Personal Use:

- Smaller quantities attract lighter penalties (up to 6 months or 1 year), but courts assess intent.

Consumption of Drugs:

- Punishment includes imprisonment up to 6 months for cannabis or 1 year for other drugs, or mandatory rehabilitation.

Salt Pan Land

Why in News? The Maharashtra government has approved the allocation of 256 acres of salt pan land in **Mulund, Kanjurmarg**, and **Bhandup for the Dharavi Redevelopment Project (DRP)** to rehabilitate slum dwellers.

What is Salt pan land?

It is also known as a salt flat, is a flat expanse of ground covered with salt and other minerals, typically found in **arid or semi-arid regions** where water evaporates faster than it is replenished. These areas form when bodies of water, such as **lakes, ponds, or seawater pools**, dry up over time, leaving behind mineral deposits, primarily salt. They often appear white and reflective under sunlight and are common in **deserts or coastal zones**.

Key Characteristics:

- **Formation**: Occurs in areas with high evaporation rates, like deserts, where water leaves behind dissolved salts. In coastal regions, seawater may flow into low-lying areas during tides, evaporating to form salt pans. Over thousands of years, these minerals accumulate into a crust.
- **Ecology**: Salt pans host unique ecosystems, supporting specialized species like certain birds, insects, and salt-tolerant plants. In coastal areas, they often connect to wetlands or mangroves, acting as buffers against flooding by absorbing rainwater or tidal inflows.

- **Economic Role**: Traditionally used for salt production, providing livelihoods for workers who harvest and process salt. The salt is used in industries like chemicals, agriculture, and food processing. Some salt pans also attract tourism due to their striking landscapes.

Examples

- **Salar de Uyuni, Bolivia**: The world's largest salt pan, known for its vast, mirror-like surface and significant lithium reserves.
- **Bonneville Salt Flats, Utah, USA**: Famous for land speed records due to its flatness.

Rann of Kutch, Gujarat:

- The Rann of Kutch is one of the largest salt desert regions in India and is famous for its salt production.
- This area contributes significantly to India's salt industry, with vast expanses of land dedicated to salt extraction.

Tuticorin, Tamil Nadu:

- Tuticorin (Thoothukudi) is a prominent location for salt pans in South India.
- It has an extensive network of salt pans, and the region is a major hub for industrial and edible salt production.

Chilika Lake Area, Odisha:

- Some parts around Chilika Lake in Odisha are used as salt pans.
- These areas utilize the saline environment for salt production.

Mumbai Suburbs, Maharashtra:

- Mumbai and its suburban areas, such as Mulund, Kanjurmarg, Bhandup, and Wadala, historically had salt pan lands.
- Many of these lands are now decommissioned and considered for development projects like housing or infrastructure.

Little Rann of Kutch, Gujarat:

- Adjacent to the larger Rann, the Little Rann of Kutch is a crucial area for salt farming.
- It is known for its traditional salt production methods and large-scale harvesting.

Challenges and Uses:

- **Environmental Concerns**: Salt pans are ecologically sensitive. Development, such as housing or infrastructure, can disrupt their role in flood prevention and harm biodiversity. For instance, in Mumbai, India, salt pan lands are under pressure for urban projects, raising fears of increased flooding.
- **Development Pressures**: In land-scarce cities, salt pans are eyed for housing or industry. However, their low-lying nature and ecological importance make such plans controversial.
- **Hazards**: The salt crust can hide soft, muddy ground beneath, posing risks to vehicles or people crossing them.

Kancha Gachibowli forest (KGF)

Why in News ?Long celebrated as Hyderabad's verdant lungs, a large portion of **Kancha Gachibowli forest (KGF) i**n Telangana's Rangareddy district was mercilessly razed to make way for a gleaming new IT park. It was done despite a report flagging major environmental consequences of destroying the forest area.

An Ecological Heritage Report prepared by ecologist Arun Vasireddy and wildlife photographer Sriram Reddy, both alumni of the University of Hyderabad, said deforestation of the KGF will lead to a temperature increase of **1-4 degrees Celsius in the adjoining localities of Tellapur, Nallagandla and Gachibowli.**

Why is Gachibowli important?

- According to the Status of Forests Report, Telangana has 27,292 sq km of forest area, about **24% of the state's total geographical** area. Of this, 19,696.23 sq km is reserved forest, 6,953.47 sq km is protected forest and the remaining 642.30 sq. km is unclassified. But forests and biodiversity in Telangana have been shrinking due to various irrigation and road construction projects since the state's formation in 2014.

- At least **27 bird species found in the KGF** are listed under **Schedule I of the Wildlife Protection Act (1972),** which grants the highest level of legal protection in India.
- It shelters vulnerable species like the **Indian Rock Python, Bengal Monitor Lizard, Star Tortoise, Indian Chameleon, and Spotted Deer—**all flagged under the International Union for Conservation of Nature (IUCN) Red List of Threatened Species, the world's benchmark for tracking species at risk of extinction.
- Also thriving here are **46 reptile species, 13 amphibians, and 32 bird species** marked as high priority under the **2023 State of India's Birds (SoIB) report**—a key tracker of conservation status and population trends.
- The forest is the only home to Murricia hyderabadensis, a unique spider discovered in 2010. "It is found nowhere else in the world," the report stated.
- "**Kancha Gachibowli** is in a crucial zone that also houses ISB, IIT, Wipro, Accenture, Amazon and the financial district," it said. And preserving it is key to safeguarding the lake and hill ecosystem that sustains Hyderabad.

Key Movements Against Deforestation:

Bishnoi Movement (1730):

- Amrita Devi and 363 Bishnoi tribe members sacrificed their lives in Rajasthan to protest tree cutting, leading to a ban on tree felling by the Maharaja of Jodhpur.

Silent Valley Movement (1973-1985):

- Protest in Kerala against a hydroelectric project to protect biodiversity.

Chipko Movement (1973):

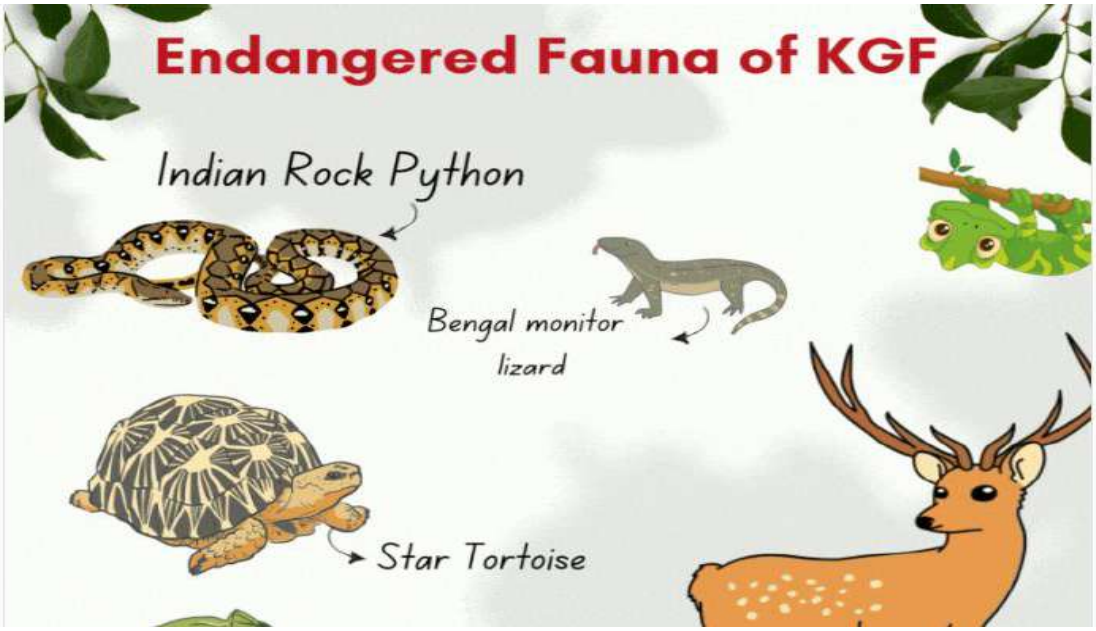
- Grassroots initiative in Uttarakhand where villagers hugged trees to prevent deforestation.

Buxwaha Forest Protest (2021):

- Protests against cutting over 200,000 trees for a diamond mining project in Madhya Pradesh, involving legal and social media campaigns.

Nandgaon Solar Plant Opposition (2025):

- Farmers in Maharashtra opposed a 100-megawatt solar project by Tata Power, citing loss of ancestral land, leading to legal disputes and project delays.



STUDENTS PROTESTS :

- A political row has erupted in Telangana with the opposition **Bharat Rashtra Samithi (BRS)** vowing to reclaim the land and transform it into a sprawling ecological zone when it returns to power.
- State ministers Bhatti Vikramarka and D Sridhar Babu, who are also alumni of the University of Hyderabad, urged Chief Minister A Revanth Reddy and Forest Minister Konda Surekha to witness the fading wilderness of KGF. Ecologist Vasireddy also called for an **honest and reliable environmental impact assessment of the project**.

Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme (PMFME)

Why in News? The Scheme was recently in news.

Important For Pre & Mains:

Pre – Key provisions of Schemes / other related Schemes

Mains- Economic Development (GS Paper III):

Rural Economy: Its focus on micro-enterprises and job creation ties into agriculture and rural industrialization. Use data (e.g., 20-30% food wastage reduction) to support arguments on economic growth.

Women Empowerment: With 50%+ women beneficiaries, it's relevant for gender-related questions (e.g., "How do government schemes promote gender equality in rural India?").

Sustainability: Reducing food wastage aligns with environmental concerns, offering a multidimensional answer.

Social Justice and Inclusive Growth:

- Targets SC/ST entrepreneurs and SHGs, making it pertinent for GS I (Society) or GS II (Welfare Schemes). Analyze its impact on marginalized communities or gaps in access to credit/skill training.

About PMFME:

The **Pradhan Mantri Formalization of Micro Food Processing Enterprises Scheme** is a flagship initiative by the Government of India, launched in 2020 under the Ministry of Food Processing Industries (MoFPI), with a focus on uplifting the unorganized micro food processing sector. Here are the key details:

Objective:

- Formalize and upgrade micro food processing enterprises to enhance competitiveness, increase income, and reduce wastage in the food supply chain.
- Promote rural entrepreneurship and integrate small businesses into the formal economy.

Target Beneficiaries:

- Approximately 2 million micro-enterprises, with a special focus on rural areas, women (50%+ beneficiaries), and SC/ST entrepreneurs.
- Individual micro-units and Farmer Producer Organizations (FPOs).

Financial Outlay:

- Total budget of Rs10,000 crore over five years (2020-25), extendable based on performance.
- Credit-linked subsidy of up to Rs10 lakh per unit (35% of eligible project cost for individuals, 55% for FPOs/SHGs).

Key Components:

Support for Upgradation: Assistance for machinery, equipment, and common infrastructure (e.g., cold storage).

Capacity Building: Skill training and handholding for 2 lakh entrepreneurs.

FSSAI Registration: Free registration and support for meeting food safety standards.

Marketing Support: Branding, packaging, and linkage to e-commerce platforms.

Credit Access: Linkage with banks and NBFCs under the Mudra scheme.

Implementation:

- Executed through state governments, NABARD, and MoFPI in collaboration with local bodies.
- Emphasis on cluster-based approaches to maximize impact.

Expected Impact:

- Creation of **8-10 lakh jobs**, particularly for women and youth.
- Reduction in food wastage (estimated **20-30% in unorganized sectors**).
- Contribution to doubling farmers' **income by 2022** (extended target).

Eligibility:

- Micro-enterprises with an annual turnover of up to Rs5 crore.
- **Priority to SHGs, FPOs, and cooperatives**.

Challenges:

- Low awareness among rural entrepreneurs.
- Limited access to credit and technical expertise.

- Delays in state-level implementation.

Other Related Schemes:

These schemes complement PMFME by addressing overlapping goals like skill development, financial inclusion, and rural empowerment:

Pradhan Mantri Kaushal Vikas Yojana (PMKVY):

Focus: Skill development for youth and workers in various sectors, including food processing.

Relevance: Provides training aligned with PMFME's capacity-building needs.

Key Feature: Targets 1 crore youth by 2025 with short-term courses.

Deendayal Antyodaya Yojana - National Rural Livelihood Mission (DAY-NRLM):

Focus: Poverty alleviation through women's SHGs and rural livelihoods.

Relevance: PMFME leverages NRLM's network for beneficiary identification and group-based enterprises.

Key Feature: Over 8 crore women mobilized into SHGs by 2024.

Pradhan Mantri Mudra Yojana (PMMY):

Focus: Provides collateral-free loans up to Rs10 lakh for small businesses.

Relevance: Supports PMFME's credit-linked subsidy model for equipment and working capital.

Key Feature: Disbursed over Rs 20 lakh crore to 30 crore beneficiaries by 2024.

Pradhan Mantri Kisan SAMPADA Yojana (PMKSY):

Focus: Infrastructure development for food processing (e.g., cold chains, mega parks).

Relevance: Provides larger-scale support that micro-enterprises under PMFME can eventually tap into.

Key Feature: Investment of Rs 6,000 crore for 2016-2020, extended with new projects.

Cheiraoba festival.

Why in News? The 6 civil society organizations (CSOs) of Kuki Zo community have warned to the Meitei community against climbing hills (**Thangjing Hill**) across a buffer zone during the annual Cheiraoba festival.

Importance for UPSC Prelims & Mains:

Prelims

Qns can be asked fron diffrernt communities & their festivals/ like Kuki-Zo /Meitei / Cheiraoba festival etc/ Major Hills

Mains:

- **GS Paper I (Society)**: Analyze the cultural significance of Cheiraoba and its clash with ethnic boundaries, linking to social cohesion or conflict in Northeast India (e.g., "Discuss the impact of cultural practices on ethnic relations in Manipur").
- **GS Paper II (Governance & International Relations)**:
    - Evaluate the role of buffer zones and state/central government responses in managing ethnic violence.
    - Question like "Examine the challenges of maintaining federal harmony in India's Northeast, with reference to the **Kuki-Zo-Meitei conflict**."
- **GS Paper III (Internal Security)**:
    - Assess the security implications of ethnic tensions and the effectiveness of civil society interventions.
    - **Example:** "How can buffer zones contribute to conflict resolution in Manipur? Discuss with recent examples."

Key points of the News:

Ethnic Divide:

- The **Kuki-Zo CSOs assert** that the hill areas, including Thangjing Hills, are part of their traditional land, while Meiteis intend to climb them, escalating territorial claims.

- The buffer zone, established to separate the two communities, is a flashpoint, with mutual suspicion preventing access.

Cultural Sensitivity vs. Restriction:

- **Cheiraoba's hill**-climbing ritual is a core **Meitei tradition, but the Kuki-Zo** groups view it as an intrusion, leading to a standoff over cultural rights versus security.

Security and Governance Failure:

- The CSOs criticize the lack of a joint statement or government action to resolve the issue, reflecting perceived administrative inaction.
- The demand for **Kuki-Zo land** to be administered by their own people suggests distrust in the Meitei-dominated valley districts' governance.

Threat of Violence:

- Warnings of a "direct threat" to the **Kuki-Zo community** and "untoward incidents" indicate potential for renewed violence, especially given past clashes (e.g., 2023 Manipur violence).
- The call to avoid escalation highlights the delicate balance maintained by security forces.

Legal and Constitutional Concerns:

- The Kuki-Zo groups question the Meitei community's special status under the Indian Constitution, demanding a more "jurisprudentially friendly" approach, possibly hinting at demands for separate administration or autonomy.

What is Buffer zones?

Buffer zones in Manipur were set up following the outbreak of ethnic violence in May 2023 between the Meitei community (dominant in the **Imphal Valley) and the Kuki-Zo tribes** (inhabiting the hill districts). These zones separate the **Meitei-controlled valley** from the **Kuki-Zo-dominated hills** to prevent direct clashes.

- The zones are heavily guarded by central security forces, reflecting the government's effort to enforce a physical divide amid ongoing tensions.

Main Groups in Northeast India:

- The Northeast is home to diverse ethnic and tribal groups, many of which play significant roles in regional politics and conflicts. Key groups relevant to Manipur and the broader region include:

Meitei:

- Predominant community in the Imphal Valley, majority Hindu, known for cultural practices like Cheiraoba.
- Advocate for Scheduled Tribe status, a contentious issue fueling tensions with hill tribes.

Kuki-Zo:

- Tribal groups (e.g., **Kuki, Zo, Chin**) inhabiting the hill districts of Manipur, Mizoram, and parts of Assam.
- Predominantly Christian, with demands for separate administration (e.g., **Kuki-Zo Council)** amid ethnic clashes.

Naga:

- Spread across Nagaland, Manipur, and Arunachal Pradesh, with subgroups like **Tangkhul and Mao**.
- Involved in separatist movements (e.g., NSCN) and have distinct cultural identities, sometimes clashing with Meiteis.

Mizo:

- Dominant in Mizoram, related to Kuki-Zo linguistically and culturally.
- Historically sought autonomy, leading to the **Mizo Accord (1986**); now a stable state but supportive of Kuki-Zo causes.

Bodo:

- Concentrated in Assam, with a history of insurgency (e.g., **Bodo Accord, 2020**).
- Relevant for understanding tribal aspirations in the region.

Assamese:

- Majority in Assam, often in conflict with tribal groups over land and identity (e.g., Assam Accord issues).

Other Tribes:

- Garo, Jaintia, and **Khasi (Meghalaya)**; Karbi and **Dimasa (Assam)**; and smaller groups like **Hmar and Paite (Manipur)**, adding to the region's ethnic mosaic.

Articles 200/201

Why in News ? The Supreme Court, for the first time, mandates that the President must decide on bills referred by governors within three months from the date of referral

Key Points

Three-Month Deadline for Presidential Decision:

- The Supreme Court, for the first time, mandates that the President must decide on bills referred by governors within three months from the date of referral. This addresses the lack of a constitutional timeframe under Article 201, ensuring timely action.

Judicial Review of Presidential Functions:

- The court ruled that the President's functions under Article 201 (which involves assenting to or withholding assent from bills reserved by governors) are subject to judicial review. This curtails any notion of absolute executive discretion, making the process accountable.

No Pocket Veto:

- The court rejected the concept of a "pocket veto," where the President could indefinitely delay a decision without formally withholding assent. It emphasized that the President must actively choose to grant or withhold assent, aligning with the principle of reasonable exercise of power.

Reasonable Timeframe Principle:

- Even without a prescribed limit in the Constitution, the court held that powers under statutes (including Article 201) must be exercised within a reasonable time. A delay beyond three months requires recorded reasons communicated to the concerned state.

Tamil Nadu Governor's Action Set Aside:

- The bench (Justices JB Pardiwala and R Mahadevan) declared Tamil Nadu **Governor RN Ravi's decision to withhold assent to 10 bills passed by the DMK**-led assembly as illegal. These bills, re-passed on November 18, 2023, after initial rejection, were deemed assented to, resolving a long-standing standoff.

State Recourse for Inaction:

- If the President fails to act within three months, states can challenge this inaction in court, providing a legal remedy and reinforcing state autonomy in legislative matters.

Role of Courts in Constitutional Validity:

- The court clarified that questions of a bill's constitutionality should not be decided by the executive (President or Governor). Instead, such issues must be referred to the Supreme Court under Article 143, reserving judicial prerogative for constitutional courts.

Impact on Federal Relations:

- By setting timelines and subjecting executive actions to review, the ruling strengthens cooperative federalism, curbing potential misuse of gubernatorial or presidential powers to obstruct state legislatures, especially in opposition-ruled states like Tamil Nadu.

About Articles 200 and 201:

Article 200: Governor's Assent to Bills

Provisions:

- The Governor can:
    1. Give assent to the bill.
    2. Withhold assent.
    3. Reserve the bill for the consideration of the President.

4. Return the bill (except a Money Bill) to the state legislature for reconsideration.

Issues:

Discretionary Powers:

- The ambiguity over the extent of the Governor's discretionary powers in withholding or reserving assent.
- Concerns over misuse or delay in decision-making.

Delay Tactics:

- Instances where Governors have indefinitely delayed decisions on state bills, affecting legislative processes.

Federal Tensions:

- Perceived biases of Governors acting as agents of the central government, causing friction in Centre-State relations.

Key Case Laws:

Shamsher Singh v. State of Punjab (1974):

- Reiterated that the Governor must act on the advice of the Council of Ministers, except in specific discretionary situations.

Nabam Rebia v. Deputy Speaker (2016):

- Stressed that the Governor's discretion is limited and cannot be exercised arbitrarily.

State of Rajasthan v. Union of India (1977):

- Highlighted the Governor's role as a link between the Centre and the state, emphasizing cooperative federalism.

Tamil Nadu Case (2025):

- The Supreme Court ruled that Governors must act on bills referred to them in a time-bound manner, setting the precedent for reasonable timelines.

Article 201: President's Decision on Bills Reserved by the Governor

Provisions:

- When a bill is reserved for the President's consideration:
    1. The President can grant assent.

2. The President can withhold assent.

Issues:

Lack of Timeframe:

- The Constitution does not prescribe a time limit for the President's decision, leading to indefinite delays (referred to as "pocket veto").

Judicial Review:

- Questions about whether the President's actions (or inactions) under Article 201 are subject to judicial scrutiny.

Executive Overreach:

- Concerns about the Centre using the President's office to interfere in state legislative processes.

Key Case Laws:

Kihoto Hollohan v. Zachillhu (1992):

- Clarified the extent of judicial review in cases of constitutional functionaries like the Speaker and indirectly linked to the President's discretion.

State of Kerala v. Union of India (1978):

- Highlighted the potential misuse of Article 201 to delay state governance.

Tamil Nadu Case (2025):

- The Supreme Court explicitly stated that the President must take a decision within three months on bills reserved under Article 201.

Related Commissions and Reports

Sarkaria Commission (1988):

- Addressed the Governor's role in Centre-State relations.
- Recommended Governors avoid frequent use of discretionary powers and act based on the advice of the state government.

Punchhi Commission (2010):

- Suggested amending Articles 200 and 201 to provide **time-bound frameworks** for Governors and the President to act on state bills.
- Emphasized minimizing the discretionary powers of the Governor to prevent delays and ensure cooperative federalism.

M.M. Punchhi Commission Recommendations on Article 201:

- Proposed a **90-day limit** for the President to decide on bills reserved for consideration.

Venkatachaliah Commission (2002):

- Reiterated the importance of time-bound decision-making and limiting discretionary powers.

Way Forward:

- **Legislative Reforms:**
  - Amend Articles 200 and 201 to mandate specific timelines for both the Governor and the President.
- **Strengthening Federalism:**
  - Ensure Governors and the President exercise their powers in line with the principles of cooperative federalism.
- **Judicial Oversight:**
  - Encourage judicial review to check delays or misuse of powers under Articles 200 and 201.
- **Implementation of Commission Recommendations:**
  - Adopt the Punchhi Commission's proposal for time limits and clarify the scope of discretionary powers.

IMEEC Initiative

Why in News? India & Italy have recently agreed upon key areas like technology, clean energy, and economic collaboration, particularly within the Middle East-Europe-Economic Corridor (IMEEC).

Important For Pre & Mains:

Pre – IMEEC/ & other BRI/ Trans-European Transport Network (TEN-T)/ **China-Pakistan Economic Corridor (CPEC)**/ Africa Continental Free Trade Area (AfCFTA).

Mains- GS 2 /GS 3

Key Points:

- The ministers emphasized accelerating IMEEC implementation, including bilateral cooperation across domains like clean energy, technology, and professional exchanges among others.
- The discussions underscored a commitment to deepening economic ties, with both nations working on global and regional developmental mutual interests, particularly Italy's continued focus on Indo-Pacific cooperation.

About IMEEC :

The India-Middle East-Europe Economic Corridor (IMEEC) is a strategic multi-nation infrastructure and trade initiative launched in 2022-23, aimed at enhancing economic connectivity between India, the Middle East, and Europe. Key points include:

Objective: To boost trade, energy, and digital connectivity by linking ports, railways, and communication networks across participating countries.

Route: The corridor spans from India through the Middle East (including Saudi Arabia and the UAE) to Europe, utilizing maritime and land routes to create an efficient trade pathway.

Participants: Involves India, the United States, Saudi Arabia, the European Union, the UAE, France, Germany, Italy, and Jordan, among others, with support from the G20 framework.

Components: Includes development of shipping routes, rail networks, hydrogen pipelines, and high-speed data cables to support economic and technological exchange.

Significance: Aims to rival initiatives like China's Belt and Road, enhance regional stability, and provide an alternative trade route, reducing reliance on traditional pathways like the Suez Canal.

Progress: Discussions and planning are ongoing, with recent India-Italy meetings (April 2025) emphasizing accelerated implementation and bilateral cooperation.

Other Initiatives:

China's Belt and Road Initiative (BRI): Launched in 2013, the BRI is a massive global infrastructure project aimed at enhancing trade and economic integration across Asia, Africa, Europe, and beyond through a network of roads, railways, ports, and energy pipelines. It is often seen as a counterpart to IMEEC, though it has faced criticism for creating debt traps in participating countries.

Trans-European Transport Network (TEN-T): A European Union initiative to develop a comprehensive transport network across Europe, connecting major cities and regions with roads, railways, airports, and ports. It focuses on improving efficiency and sustainability, much like IMEEC's goals.

China-Pakistan Economic Corridor (CPEC): Part of the BRI, CPEC is a network of infrastructure projects linking Gwadar Port in Pakistan with China's Xinjiang region, aimed at boosting trade and energy cooperation between the two countries.

Africa Continental Free Trade Area (AfCFTA) Infrastructure Projects: These include plans for trans-African corridors (e.g., connecting Angola, DRC, and Zambia), designed to enhance intra-African trade and connectivity, with potential collaboration from IMEEC participants like the U.S. and EU.

Chennai-Vladivostok Eastern Maritime Corridor (EMC): A proposed maritime route between India and Russia's Far East, aimed at strengthening trade links across the Indo-Pacific, often cited as a strategic response to China's influence.

RBI : Report on Urban Consumer

Why in News? The Reserve Bank of India (RBI) recently conducted surveys highlighting the disparity between job availability and income growth in urban areas. The findings indicate growing concerns among urban and rural consumers about stagnant incomes, rising commodity prices, and their impact on spending and overall economic perception.

Importance for UPSC Mains:

GS Paper III (Economy):

Economic Development: The report highlights challenges like stagnant incomes and rising commodity prices, offering material for questions on India's economic growth and urban-rural disparities.

Inflation and Policy: The impact of over **80%** increased spending due to price rises ties into discussions on monetary policy, RBI's role, and government interventions to boost consumer confidence (only **34.7% positive economic sentiment**).

Employment and Labor: The mismatch between job availability and income stagnation is relevant for essays or answers on unemployment, wage policies, and skill development.

Survey Findings:

Employment Perception:

- **35.5%** of urban respondents reported an improvement in employment opportunities compared to a year ago .
- Job availability in urban areas remains stable, but optimism about income levels continues to decline.

Stagnant Income Levels:

- Only **23.8%** of urban respondents said their income levels have increased compared to a year ago .
- The gap between job optimism and income growth is about **12 percentage points.**

Rural Income Concerns:

- **29.9%** of rural respondents reported a decline in income compared to a year ago, higher than the **23.3%** reported in urban areas .
- Rural areas exhibit more pronounced pessimism about income levels than urban regions.

Impact of Rising Prices:

Price Increase:

- Over **90%** of urban respondents said commodity prices have increased compared to a year ago .
- This has led to increased spending for over **80%** of urban respondents .

Economic Perception:

- Despite stable job availability, stagnant incomes and rising prices have negatively impacted overall economic sentiment.
- Only **34.7%** of urban respondents said the overall economic situation has improved compared to last year — the lowest percentage in over a year .

Significance of the Findings:

- The data underscores the mismatch between employment growth and income stagnation, posing challenges for urban residents to cope with inflationary pressures.
- The findings emphasize the **need for policy measures** to address wage stagnation, inflation, and their combined effect on consumer confidence and economic well-being.

Pondy Marina

Why in News ? Pondy Marina is a vibrant beachfront promenade located in **Puducherry (formerly Pondicherry)**, a Union Territory of India. It is a recent addition to Puducherry's tourist attractions and has quickly gained popularity as a leisure and cultural hub for locals and visitors alike.

Key Features of Pondy Marina:

Location:

- Situated along the Bay of Bengal coastline, it offers stunning views of the sea and is part of Puducherry's efforts to develop sustainable and accessible urban infrastructure.

Beach Activities:

- Visitors can enjoy a range of activities, including beach volleyball, water sports, and evening strolls along the well-maintained sandy shores.

Food Court and Local Cuisine:

- Pondy Marina features an open food court offering diverse culinary delights, including traditional Tamil, French, and other international cuisines.
- Local seafood is a highlight, with fresh catches prepared in various styles.

Family-Friendly Atmosphere:

- The beach is designed to cater to families, with play areas for children, shaded seating, and ample space for relaxation.

Eco-Friendly Initiatives:

- Emphasis on sustainability is evident with the use of eco-friendly materials, waste management practices, and preservation of natural habitats along the coast.

Cultural Hub:

- Pondy Marina often hosts cultural events, music festivals, and art exhibitions that showcase the rich heritage and artistic talents of Puducherry.

Accessibility:

- Well-connected by road and public transport, Pondy Marina is easily accessible from the city center and other tourist spots like Auroville and White Town.

Sub-categorisation of Scheduled Castes (SCs)

Why in News? Telangana has become the first state in India to notify the sub-categorisation of Scheduled Castes (SCs), a significant step towards addressing disparities within SC communities.

Why Important for UPSC Prelims & Mains?

- **Prelims**: Constitutional Provisions for SCs/STs/ **Articles 341 and 342/15(4)/16(4)**
- **Mains**: Relevant for essays and GS Paper II (Governance, Social Justice). Highlights issues of equity, reservation policies, and implementation challenges, offering scope for analyzing federalism and social inclusion.

Key Points of News:

- **First State**: Telangana notified sub-categorisation of SCs on April 14, 2022, based on a gazette issued with appointed day consideration.

Categorisation: SCs divided into three groups:

Group-I: 9% reservation (most marginalized).

Group-II: 10% reservation.

Group-III: 5% reservation.

Population Basis: Sub-categorisation based on **26% SC population, with 8.43% receiving benefits previously.**

Objective: To provide equitable opportunities, especially to the most backward SC groups, by adjusting reservation quotas.

Constitutional Provisions:

- The sub-classification of Scheduled Castes (SCs) and Scheduled Tribes (STs) is governed by **Articles 341 and 342** of the Indian Constitution.
- Article 341 empowers the President, after consultation with the Governor, to notify castes, races, or tribes as SCs for a state or union territory, with Parliament holding the exclusive power to modify this list (Article 341(2)).
- Similarly, **Article 342 applies to STs. Articles 15(4) and 16(4**) allow the state to make special provisions for the advancement of socially and educationally backward classes, including SCs and STs, in education and public employment, providing the basis for reservation policies.

Recent Supreme Court Judgments:

- On August 1, 2024, a seven-judge Constitution Bench (6:1 majority) in *State of Punjab v. Davinder Singh* overturned the 2004 *E.V. Chinnaiah v. State of Andhra Pradesh* ruling, which had held SCs as a homogeneous group, prohibiting sub-classification.
- The 2024 judgment ruled that states can sub-classify SCs and STs based on inter-se backwardness, provided it is supported by empirical data. Chief Justice D.Y. Chandrachud emphasized that SCs are not a uniform entity, and sub-classification does not violate Articles 14 or 341(2). Justice B.R. Gavai supported preferential treatment for the most backward groups, while Justice Bela Trivedi dissented, arguing states lack authority to alter the Presidential List.

Issues and Challenges

- **Empirical Data Requirement**: States must provide quantifiable evidence of underrepresentation, which is challenging due to the lack of comprehensive caste-based census data.
- **Creamy Layer Debate**: Suggestions to exclude the creamy layer (advanced individuals) from SC/ST benefits, as noted by Justices Gavai and Mithal, raise concerns about implementation and fairness, though not mandated in the judgment.

- **Political Misuse**: There's a risk of states using sub-classification for electoral gains, necessitating judicial oversight.
- **Legal Uncertainty**: The review petition filed on August 22, 2024, challenging the judgment, indicates ongoing contention, potentially leading to further litigation.
- **Equity vs. Fragmentation**: While aiming to benefit the most marginalized, sub-classification may fragment SC/ST unity, affecting reservation efficacy.

Way Forward:

Conduct Comprehensive Caste Census: Conduct a nationwide caste-based census with updated data to identify inter-se backwardness among SCs and STs, ensuring evidence-based sub-classification.

Establish Clear Guidelines: The central government, in consultation with states, should frame uniform criteria for sub-classification, including metrics for underrepresentation and creamy layer exclusion.

Judicial Oversight: Set up a dedicated commission or strengthen existing bodies (e.g., **National Commission for SCs**) to monitor implementation and prevent misuse.

Capacity Building: Train state administrations to collect and analyze data, ensuring compliance with **Supreme Court mandates.**

Public Awareness: Educate communities about the benefits of sub-classification to reduce resistance and promote social harmony.

Periodic Review: Institute a mechanism for regular evaluation of sub-classification outcomes, adjusting policies as needed **based on empirical results**.

International Maritime Boundary Line (IMBL)

Why in News? The seizure of 311 kg of methamphetamine dumped into the sea by smugglers off the Gujarat coast on April 14, 2025, highlights India's ongoing efforts to combat drug trafficking, involving coordinated action by the Gujarat Anti-Terrorist Squad (ATS) and Indian Coast Guard (ICG).

Operation: Conducted by Gujarat ATS and ICG in a joint operation targeting an IMBL (International Maritime Boundary Line) crossing.

Why Important for UPSC Prelims & Mains?

Prelims: Methamphetamine & other related topics/ IMBL/ UNCLOS/EEZ

Mains: Relevant for GS Paper III (Internal Security) and essays on drug trafficking, coastal security, and international cooperation. Offers scope to discuss India's role in regional security and challenges in tackling narcotics smuggling.

About Methamphetamine:

Methamphetamine is a powerful, highly addictive synthetic stimulant drug that affects the central nervous system. It is commonly known as "meth," "crystal meth," or "ice."

Effects: Increases dopamine levels, leading to euphoria, increased energy, and alertness, but can cause severe addiction, psychosis, cardiovascular damage, and death with prolonged use.

Production: Manufactured illegally using precursor chemicals like pseudoephedrine or ephedrine, often in clandestine labs. Key production hubs include Southeast Asia (e.g., the Golden Triangle) and Mexico.

Global Impact: A major drug of abuse worldwide, contributing to organized crime, health crises, and economic losses. The UNODC reports its trafficking is rising, with India increasingly a transit point.

Legal Status in India: Classified as a psychotropic substance under the Narcotic Drugs and Psychotropic Substances (NDPS) Act, 1985, with stringent penalties for trafficking (up to 20 years imprisonment or life).

About International Maritime Boundary Line (IMBL):

- **Definition**: The IMBL is the demarcated boundary separating the territorial waters of two adjacent coastal states, established under the United Nations Convention on the Law of the Sea (UNCLOS). For India, it defines its maritime limits with neighboring countries like Pakistan, Sri Lanka, and Bangladesh.

- **India-Pakistan IMBL**: Runs along the Arabian Sea, approximately 12 nautical miles from the coast, marking the limit of territorial waters. Beyond this is the Exclusive Economic Zone (EEZ), extending 200 nautical miles.

Significance:

- Regulates fishing, navigation, and resource exploration.
- A critical zone for monitoring smuggling, piracy, and illegal migration.
- Frequent site of tensions, including drug trafficking, as seen in the recent 311 kg methamphetamine seizure off Gujarat.

Security Challenges: India deploys the Indian Coast Guard and Navy to patrol the IMBL, using radar and satellite surveillance to curb cross-border illegal activities, especially given its proximity to trafficking routes from Pakistan and the Gulf.

GPS spoofing

Why in News ? Indian Air Force (IAF) transport aircraft faced "**GPS spoofing**" during relief missions to earthquake-hit Myanmar under **Operation Brahma**, launched after a 7.7-magnitude earthquake on March 28, 2025. The IAF's response on the same day, affirming mission success despite the cyber interference, has sparked discussions on aviation security and regional cyber threats.

Why Important for UPSC?

Prelims : GPS spoofing & other related terms

GS 3-Security Highlights vulnerabilities in military aviation to cyberattacks, especially in conflict zones like Myanmar, affecting India's humanitarian and defense operations.

What is GPS & GPS Spoofing?

- **GPS (Global Positioning System)**: A satellite-based navigation system developed by the U.S. that provides precise location and time data to users worldwide using a network of at least 24 satellites. It is critical for aircraft, ships, and ground vehicles.
- **GPS Spoofing**: A cyberattack where false GPS signals are transmitted to deceive navigation systems, causing them to display incorrect locations (e.g., shifts of 50-500 miles). This can

misguide aircraft, disrupt missions, and pose safety risks. Unlike jamming (which blocks signals), spoofing mimics legitimate signals, making it more sophisticated and dangerous.

About GPS:

Global Positioning System (GPS) is a satellite-based navigation system originally developed by the United States Department of Defense. It provides geolocation and time information to a GPS receiver anywhere on Earth, as long as there is an unobstructed line of sight to at least four satellites.

Key Features of GPS:

How it Works?

- GPS uses a constellation of at least 24 satellites in medium Earth orbit.
- Satellites broadcast signals that are received by GPS devices.
- The device calculates its location based on the time it takes for signals to travel from the satellites.

Applications:

- Navigation: Used in vehicles, ships, and aircraft.
- Mapping: Supports geospatial mapping and surveying.
- Military: Critical for operations, targeting, and reconnaissance.
- Emergency Services: Helps in disaster response and search-and-rescue missions.
- Everyday Use: Common in smartphones, wearable devices, and logistics.

About GPS Spoofing :

GPS Spoofing is a cyberattack technique that manipulates the GPS signals received by a device, causing it to misinterpret its location and time.

How GPS Spoofing Works?

Signal Imitation:

- The attacker generates fake GPS signals that mimic genuine satellite signals.
- These fake signals are stronger than real ones, tricking the receiver.

Device Confusion:

- The device locks onto the spoofed signals, reporting a false location or time.

Consequences of GPS Spoofing:

Security Risks:

Military: Misleading drones, vehicles, or missiles.

Shipping: Rerouting ships off course, potentially causing collisions or grounding.

Economic Impact:

- Disrupting logistics and supply chains.

- Fraudulent manipulation of location-based services like toll collection or ride-hailing.

Personal Safety:

- Endangering users reliant on GPS for navigation, such as hikers or drivers.

Critical Infrastructure:

- Disrupting systems that depend on precise timing, such as banking, telecommunications, and power grids.

The India Justice Report 2025

Why in News ? The **India Justice Report 2025**, the fourth edition of this biennial report, has been released. It evaluates the performance of Indian states in delivering justice across four key pillars: **policing, judiciary, prisons, and legal aid**.

Southern states, led by Karnataka, have dominated the rankings, while West Bengal fell to the last position among large and mid-sized states. The report highlights significant trends, regional disparities, and the challenges in achieving effective justice delivery in India.

Why it is Important for UPSC?

Mains-Relevant for General Studies Paper II (Polity and Governance), covering judiciary, police reforms, and justice delivery mechanisms/Social Justice and Inclusive Governance:

Key Points of the Report:

Top Performers

Karnataka ranked first, followed by Andhra Pradesh, Telangana, Kerala, and Tamil Nadu among large and mid-sized states.

Bottom Performers:

West Bengal ranked last, with Uttar Pradesh, Uttarakhand, Jharkhand, and Rajasthan also in the bottom five.

Notable Improvements

- Telangana made the biggest leap, moving from 11th (2022) to 3rd position (2025).
- Bihar showed remarkable progress in improving **police indicators**, despite having the lowest police-population ratio.
- Rajasthan, Kerala, and Madhya Pradesh showed the most progress on **judicial indicators**.

Small State Rankings:

Sikkim emerged as the best performer, while Goa lagged behind.

Critical Issues:

Undertrials Surge: **Nearly 76%** of the prison population consists of undertrials, up from 66% a decade ago.

Resource Allocation: A significant portion of the criminal justice budget is spent on salaries, leaving insufficient funds for infrastructure and training.

Public Call for Reforms

- Former **Supreme Court judge Sanjay Kishan Kaul** emphasized the need for public pressure, leadership within governance, and willingness to challenge the status quo for systemic reforms.

National Statistics:

- Police-Population Ratio: Remains stagnant at 155 police per 100,000 people, far below the sanctioned strength of 197.5.
- Bihar has the worst ratio, at **81 police per lakh population**.

Sectoral Highlights:

Judiciary: Lack of adequate representation and vacancies.

Prisons: Rising populations with overburdened infrastructure.

Legal Aid: Haryana recorded the most improvement in accessibility.

The Approach to regulating AI in India

Why in News? The article was published in the Hindu newspaper. It talks about AI regulation in India & challenges .

Relevance to General Studies (GS) Papers:

GS Paper III – Science and Technology:

AI is a critical topic in science and technology due to its transformative impact on various sectors such as health, education, and governance.

Link to Ethical Concerns (GS IV – Ethics)

Key points from the article :

1. Importance of AI Governance and Regulation:

- Artificial Intelligence (AI) governance has gained significant attention globally.
- Recent concerns include human rights, bias, and the socio-economic impacts of AI technologies.
- Several countries, including the US, UK, EU, China, Japan, and South Korea, are already working on frameworks for regulating AI.

2. India's Current Scenario:

- India lacks a formal framework for AI regulation but acknowledges its growing importance.
- A specific AI strategy is yet to be formalized, although there is growing focus on creating ethical, skilled, safe, and trustworthy AI ecosystems.

3. Benefits and Risks of AI:

- AI offers transformative benefits, including improved productivity, economic growth, and enhanced services in sectors like education, healthcare, and governance.
- Risks include bias, privacy concerns, ethical challenges, job displacement, and cybersecurity threats.

4. Global Approaches to AI Regulation:

- Countries like the **EU have created comprehensive regulatory** frameworks such as the **AI Act** to ensure safety, transparency, and accountability.
- Emphasis is placed on **high-risk AI applications**, mandating compliance with ethical standards.

5. India's AI Priorities:

- India's immediate focus should be on:
  - Developing policies for **safe AI adoption**.
  - Establishing **trustworthy AI ecosystems**.
  - Creating safeguards against ethical violations and data misuse.
- There is also a need for **sector-specific regulations**, particularly in critical fields like healthcare, banking, and education.

6. Policy Suggestions:

- Establish **an AI policy framework** to regulate high-risk areas and protect privacy.
- Develop **public-private collaborations** to foster AI innovation and adoption.
- Ensure inclusivity by bringing AI benefits to marginalized and underserved communities.

7. Role of Government and Industry:

- Governments must ensure public trust in AI technologies by addressing ethical and privacy concerns.

- Industry players need to adopt self-regulatory mechanisms while aligning with national standards.

Way Forward:

- India should take a **phased approach** toward AI regulation, learning from other countries.
- Public awareness and societal input should guide policymaking.
- A balanced framework must encourage innovation while safeguarding rights and minimizing risks.

Declining participation of women in India's formal manufacturing sector

Why in News ? The article discusses the declining participation of women in India's formal manufacturing sector and its implications for economic growth and gender equity.

Relevance for UPSC:

Prelims: Initiatives like Tamil Nadu's 'Thozhi' scheme etc

Mains : Relevant for GS Paper I (Society), GS Paper II (Governance and Policies), and GS Paper III (Inclusive Growth and Economic Development).

Key Points of the News:

Declining Participation of Women in Manufacturing:

- Women's share in the formal manufacturing workforce dropped from **20.9% in 2015-16 to 18.9% in 2022-23.**
- Women occupy low-paying and informal jobs despite contributing to manufacturing.

Manufacturing as a Growth Driver:

- Manufacturing accounts for nearly **one-fifth of India's GDP.**
- Women's participation in the sector remains lower than in countries like Bangladesh and Vietnam.

Geographical Concentration of Women in Manufacturing:

- Five States—Tamil Nadu, Karnataka, Maharashtra, Andhra Pradesh, and West Bengal—account for **75% of the formal female manufacturing** workforce.
- Bihar, West Bengal, Chhattisgarh, and Haryana show the highest gender gap in the formal workforce, with women making up less than 6%.

Sectoral Homogeneity in Women's Employment:

- **Formal sector:**
  - **60% of women are employed in textiles**, wearing apparel, and food processing.
  - Tobacco is the only formal sector where women outnumber men.
- **Informal sector:**
  - Tobacco and wearing apparel dominate women's employment, with over 90% of informal tobacco workers being women.

Challenges for Women in Manufacturing:

- High concentration in informal and low-paying jobs.
- **Limited skill training**: **Only 6%** of women receive formal vocational training.
- **Education gap**: **47% of men** in manufacturing complete secondary education or higher, compared to 30% of women.
- Unsafe work environments and lack of state-specific interventions.

Suggestions to Enhance Participation:

- Skill development programs to upskill women and improve productivity.
- Encourage higher education for women to increase employability.
- Sectoral diversification to expand opportunities for women in manufacturing.
- Create safe and inclusive work environments:
- **Example:** Tamil Nadu's 'Thozhi' scheme provides hostels for working women.
- State-specific policies to address unique challenges.

Way Forward:

- Focused efforts on transitioning women from informal to formal manufacturing jobs.
- Investments in education, skill training, and workplace safety to reduce gender disparity.
- Sectoral reforms and state-specific schemes to foster inclusive growth.

Expenditure Finance Committee (EFC)

Why in News? The Jal Shakti Ministry's request for an additional Rs 2.79 lakh crore to fund the Jal Jeevan Mission (JJM), a flagship scheme aimed at providing tap water connections to rural households, has been partially approved by the Expenditure Finance Committee (EFC), which recommended only Rs 1.51 lakh crore.

Relevance for UPSC Preliminary and Mains Examinations

UPSC Preliminary Examination:

- **General Studies Paper I**: (JJM/EFC /Social Sector Initiatives, and Water Management. **UPSC Mains Examination:**
- **General Studies Paper II (Governance, Constitution, Polity)**: Relevant for questions on Centre-State financial relations, cooperative federalism, and the implementation of centrally sponsored schemes. The funding gap and states' liability highlight fiscal federalism issues.
- **General Studies Paper III (Economic Development, Environment)**: Pertinent for topics like infrastructure development, water management, and challenges in achieving Sustainable Development Goals (SDG 6: Clean Water and Sanitation). Questions may explore cost escalation, inefficiencies in scheme implementation, or the role of public finance in development projects.

Key points of News :

Jal Jeevan Mission Funding and Challenges:

- **Objective and Launch**: Launched on August 15, 2019, by Prime Minister Narendra Modi, the Jal Jeevan Mission aims to provide functional tap water connections to approximately 16 crore rural households under the 'Har Ghar Jal' initiative, targeting 100% coverage by December 2024.
- **Progress and Delays**: By 2024, only 75% of the target (12 crore households) was achieved, leaving 4 crore households pending. The mission's deadline has been extended to December 31, 2028, to complete the remaining connections.
- **Funding Demand**: The Jal Shakti Ministry requested an additional Rs 2.79 lakh crore from the Centre to complete the mission, citing increased costs and pending works.
- **EFC Recommendation**: The Expenditure Finance Committee, chaired by the Expenditure Secretary, approved only Rs 1.51 lakh crore, a 46% cut from the ministry's demand, due to concerns over sharply higher costs and potential inflated contracts by some states.
- **Cost Escalation**: The mission's overall outlay was reduced by Rs 41,000 crore to Rs 8.69 lakh crore from Rs 9.10 lakh crore proposed by the ministry. In 2019, the EFC had set the outlay at Rs 3.6 lakh crore against the ministry's demand of Rs 7.89 lakh crore, but states approved schemes worth Rs 8.07 lakh crore by 2024.

Funding Gap and State Liability: The funding shortfall of over Rs 1.25 lakh crore over four years is expected to be borne by states, which may seek additional support from the Centre. This is significant

as 16 states are governed by the BJP or its allies, potentially influencing Centre-State financial negotiations.

Cost Concerns: The cost per tap connection has risen from Rs 30,000 in 2019 to Rs 1,37,500, prompting the Finance Ministry to seek justification for the escalation, amid allegations of inflated contracts in some states.

- **Centre-State Funding Model**: JJM operates on a 50:50 funding ratio between the Centre and states for most regions, making state cooperation critical for bridging the funding gap.

About the Expenditure Finance Committee (EFC):

Overview and Role:

Purpose: The EFC is a key body in India's public finance framework, responsible for appraising and approving proposals for public expenditure on projects or schemes costing over Rs 500 crore. It ensures fiscal discipline, cost-effectiveness, and alignment with national priorities.

Functions:

- Evaluates financial proposals from ministries, assessing their feasibility, cost estimates, and expected outcomes.
- Recommends approval, modification, or rejection of funding requests, ensuring efficient use of public funds.
- Addresses cost escalations, implementation challenges, and inter-ministerial coordination issues.
- Plays a critical role in the budgetary process by aligning project funding with the Union Budget's fiscal framework.

Significance: The EFC acts as a gatekeeper for large-scale public investments, balancing developmental goals with fiscal prudence. Its decisions impact the pace and scale of flagship schemes like JJM.

Composition:

- **Chairperson**: The Expenditure Secretary, Department of Expenditure, Ministry of Finance, chairs the EFC.
- **Members**:
    - Representatives from the Department of Economic Affairs, Ministry of Finance.
    - Officials from the concerned ministry (in this case, Jal Shakti Ministry).
    - NITI Aayog representatives for policy and planning inputs.
    - Other relevant ministries or departments, depending on the project's scope (e.g., Rural Development for JJM).

- **Ad Hoc Members**: Experts or officials from other ministries may be invited based on the proposal's nature.

Process:

- **Proposal Submission**: Ministries submit detailed project proposals, including cost estimates, timelines, and expected outcomes.
- **Scrutiny**: The EFC examines the proposal's financial, technical, and operational aspects, often seeking clarifications or justifications (e.g., cost escalation in JJM).
- **Deliberation**: Meetings involve discussions with ministry officials, financial advisors, and experts to assess the proposal's viability.
- **Recommendation**: The EFC recommends funding approval, partial approval with modifications, or rejection. Its recommendations are forwarded to the Cabinet Committee on Economic Affairs (CCEA) for projects above a certain threshold (typically Rs 1,000 crore).

Vehicle-to-Grid (V2G) technology

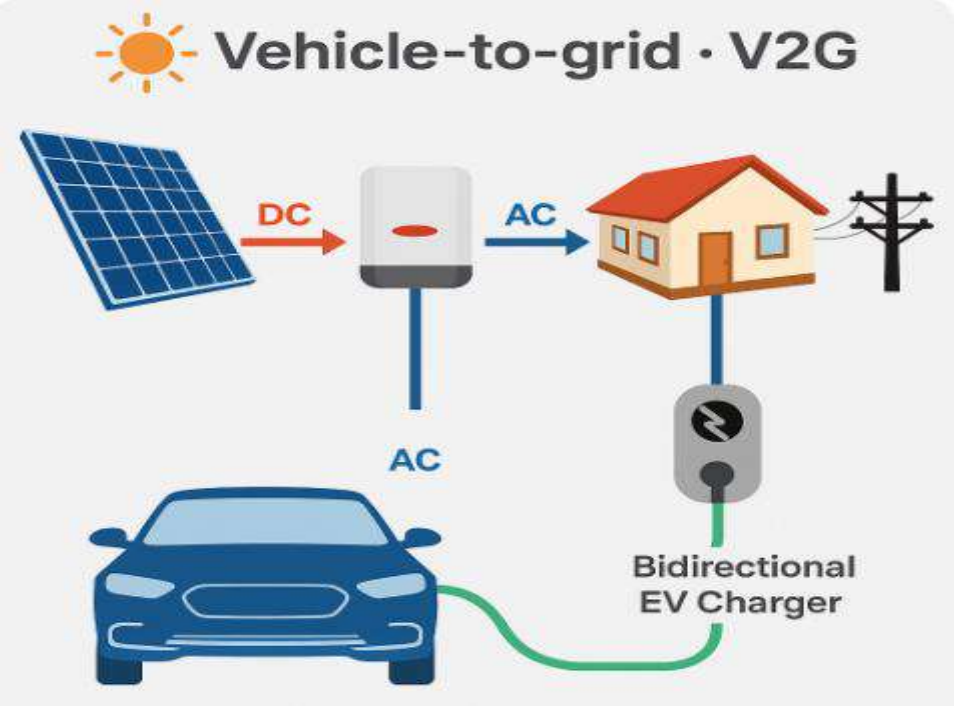
Why in News ?The Kerala State Electricity Board, in partnership with IIT Bombay, has initiated a pilot program to evaluate the practicality of integrating Vehicle-to-Grid (V2G) technology in Kerala. The project focuses on leveraging Electric Vehicles (EVs) to improve grid stability and energy efficiency.

What is V2G?

V2G refers to a system where vehicles connect with power grids and renewable energy sources, facilitating a two-way flow of electricity(**Bidirectional Power flow)**.

Key Features of V2G Technology:

- **Two-Way Energy Exchange:** Enables EVs to return unused electricity to the grid, functioning as decentralized storage units.
- **Optimized Charging:** Smart systems such as Time-of-Use (ToU) rates ensure charging aligns with off-peak hours or times of high renewable energy availability.
- **Versatile Applications:** Besides V2G, related applications include Vehicle-to-Home (V2H) and Vehicle-to-Vehicle (V2V) energy transfers.



Benefits of V2G Technology:

- **Balancing Energy Demand:** Reduces grid stress during peak usage, enhancing reliability.
- **Promoting Solar Energy Use:** Aligns EV charging with daytime solar energy production, aiding decarbonization efforts.
- **Mobile Energy Storage:** Allows EVs to store excess renewable energy for later use, improving renewable energy utilization.
- **Economic Opportunities:** Compensation strategies can incentivize EV owners to participate in grid services, improving system economics and grid performance.

Global Progress in V2G Implementation:

- **Established EV Markets:** Countries like the U.S. and Europe have advanced V2G pilots, particularly with electric cars and buses, offering financial incentives for returning power to the grid.
- **Enhancing Grid Stability:** EVs contribute to grid reliability and serve as emergency power sources during crises in regions like California and the Netherlands.
- **Developing Standards:** Efforts are underway globally to create standardized frameworks and regulations for V2G integration.

Status of V2G in India:

- **Emerging Technology:** India is at an early stage in adopting V2G, with ongoing pilot programs and research studies.

- **Current Challenges:** Focus remains on developing EV charging infrastructure and addressing grid management issues.
- **Regulatory Gaps:** Decentralized energy storage policies are under development, with the Central Electricity Authority (CEA) drafting guidelines for EV-to-grid power flow.

About Bidirectional Power Flow:

Bidirectional power flow refers to the ability of electricity to flow in both directions within a power system, from the source to the load and vice versa, enabling a reversible exchange of energy.

- Traditionally, power grids were unidirectional, with electricity flowing from centralized generation plants to consumers. With the rise of **distributed energy resources (DERs)** like solar panels, wind turbines, and electric vehicles (EVs), bidirectional flow has become critical to modern energy systems.
- It is facilitated by advanced technologies such as smart inverters, bidirectional chargers, and energy storage systems, allowing consumers to act as "prosumers" (both producers and consumers of electricity).

About Central Electricity Authority (CEA):

The **Central Electricity Authority (CEA)** is a statutory organization under the **Ministry of Power, Government of India**. It plays a pivotal role in the planning and development of the power sector in the country. Established under the **Electricity Act, 2003**, the CEA functions as the technical advisor to the Government of India and various stakeholders in the power sector.

Key Roles and Responsibilities of the CEA:

Power Sector Planning and Policy:

- Formulates national electricity plans for the optimal development of power systems in the country.
- Prepares and monitors the implementation of generation, transmission, and distribution programs.

Grid Operations and Standards:

- Develops standards and regulations for power generation, transmission, and distribution.
- Monitors grid performance and ensures compliance with technical norms.

Regulatory and Advisory Role:

- Advises the Ministry of Power on electricity policies, regulations, and reforms.
- Assists state and central governments in formulating strategies for electricity development.

Data Management and Analysis:

- Collects and publishes statistics on the performance of the power sector.
- Analyzes electricity demand, supply, and capacity utilization.

Research and Development:

- Promotes innovation and technology upgrades in power generation, renewable energy integration, and energy efficiency.

Licensing and Certification:

- Issues technical certifications and licenses for electrical equipment and infrastructure.

Environmental and Renewable Energy Focus:

- Conducts environmental impact assessments for power projects.
- Facilitates the integration of renewable energy sources into the grid.

Composition of the CEA:

Chairperson:

The CEA is headed by a **Chairperson**, appointed by the Government of India. The Chairperson oversees the overall functioning of the authority.

Members:

Full-time Members:

- Typically, the authority comprises **3 to 7 full-time members**, each responsible for specific functions like thermal, hydro, renewable energy, planning, and grid operations.
- These members are appointed by the Central Government.

Part-time Members:

- Officials from other departments or ministries may also serve as part-time members to ensure inter-ministerial coordination.

Affiliated Ministry:

Ministry of Power:

- The CEA operates under the administrative control of the Ministry of Power.
- It serves as the technical arm of the ministry, providing expertise and recommendations for policy decisions.

National Vision of Viksit Bharat by 2047

Why in news ? Lok Sabha Speaker Om Birla has recently outlined a comprehensive roadmap for achieving the national vision of **Viksit Bharat (Developed India) by 2047**.

Overview:

- India's vision for 2047, termed 'Viksit Bharat' (Developed India), aspires to transform the nation into a developed economy by its 100th independence anniversary.
- The vision rests on four foundational pillars: **Yuva (Youth)**, **Garib (Poor)**, **Mahila (Women)**, and **Kisan (Farmers)**.
- Achieving this vision demands holistic efforts in economic growth, social equity, global competitiveness, environmental sustainability, industrial modernization, and good governance.

Importance for UPSC Prelims :

Viksit Bharat 2047/ *Bharatmala* and *Udaan Yojana*.

For UPSC Mains:

The topic is critical for essay writing and General Studies Papers, particularly **GS-II**, **GS-III**, and **Essay**. Key points for Mains preparation:

GS-II: Governance and Policies:

Relevance:

- Discuss policy reforms like ease of doing business, tax reforms, and initiatives like ***Bharatmala*** **and** ***Udaan Yojana*****.**

Questions:

- "Evaluate the effectiveness of government initiatives in achieving India's goal of becoming a developed nation by **2047."**
- "How does the **Viksit Bharat vision integrate youth**, women, farmers, and the poor into its framework of development?"

GS-III: Economy, Science & Tech, Environment

Relevance:

- Discuss India's GDP trajectory, renewable energy targets, digital transformation, and AI adoption.
- Highlight the importance of innovation-driven growth and global competitiveness.

Questions:

- "Discuss the role of renewable energy and digital transformation in achieving **India's Viksit Bharat vision by 2047**."
- "What are the challenges and opportunities in India's journey to become a USD 34.7 trillion economy by 2047

Key Highlights:

Economic Growth Trajectory:

- India's growth rate surged from **2.9%** (1951–52) to 7.6% (2023–24).
- GDP is projected to surpass USD 7 trillion by 2030 and reach **USD 34.7** trillion by 2047 (PHD Chamber of Commerce and Industry).

Per Capita Income:

- Estimated to rise to USD 4,667 by 2030 and USD 21,000 by 2047.

Sectoral Contributions to GDP by 2047:

- **Agriculture**: Contribution expected to reduce from 20% (FY23) to 12%.
- **Industrial Sector**: Anticipated to reach 34%.
- **Manufacturing Sector**: Expected to constitute 25%.
- **Services Sector**: Stable contribution of around 54%.

Key Enablers:

- Simplifying ease of doing business.
- Scaling Indian sectors to global standards to develop MNCs.
- Building capacity in the semiconductor industry.
- Promoting startups and exports.
- Reforming agriculture and food processing.
- Filling government vacancies (national and state levels).
- Accelerating digital transformation.
- Enhancing renewable energy production.
- Expanding physical infrastructure investments.

Global Standing Goals:

- To become the **2nd largest economy in the Asia-Pacific region** by 2030.
- Achieving the position of the **3rd largest global economy** by 2030.

Renewable Energy Goals:

- **India ranks 4th** globally in renewable energy production.
- **Target**: 500 GW of installed capacity by 2030.

- **Projections**: 900 GW by 2040 and 1500 GW by 2047 (PHDCCI).

Digital and AI Transformation:

- Internet penetration has grown from 8% in 2010 to 52% in 2024 and is expected to reach 82% by 2047.
- **India aims to rank among the top 5** nations globally in AI readiness by 2047.

Innovation-Driven Growth:

- India's Global Innovation Index rank improved from **52nd in 2019 to 39th in 2024**.
- By 2047, India is expected to rank among the top 5 innovation leaders globally (PHDCCI).
- The semiconductor industry is projected to grow to USD 750 billion by 2047.

Key Government Initiatives:

- Programs like **Make in India**, **Digital India**, **Gati Shakti**, **Bharatmala**, **Udaan Yojana**, and electronic manufacturing clusters are driving infrastructure and economic growth.

Policy Reforms:

- Simplification of industrial policies.
- Implementation of a transparent tax regime.
- Introduction of single-window clearance systems.

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Facts for Prelims

The Arctic Boreal Zone (ABZ)

Why in news? The Arctic Boreal Zone (ABZ) has recently made headlines due to a significant shift in its role as a carbon sink, as highlighted in a study published in *Nature Climate Change*.

About the Arctic Boreal Zone (ABZ):

The Arctic Boreal Zone (ABZ) is a vast circumpolar region spanning approximately 26 million square kilometers across North America, Europe, and Asia. It includes:

Tundra: Treeless landscapes dominated by low-lying vegetation, where permafrost (permanently frozen soil) locks away massive amounts of carbon, estimated to hold nearly half of the world's soil carbon pool—about 1.5 trillion tons.

Boreal Forests: The world's largest terrestrial biome, also known as taiga, consisting primarily of coniferous trees like spruce, fir, pine, and larch. These forests stretch across Canada, Alaska, Siberia, and Scandinavia, playing a key role in carbon sequestration through photosynthesis.

Wetlands: Waterlogged areas that store carbon in peat and organic matter, contributing to the region's carbon-absorbing capacity.

Historically, the ABZ has acted as a net carbon sink, meaning it absorbs more CO_2 through plant growth and soil storage than it releases through respiration and decomposition. This process has been vital for millennia, with the cold climate preserving carbon in permafrost and limiting microbial activity that would otherwise release greenhouse gases. However, the *Nature Climate Change* study indicates that this dynamic is shifting:

Wildfires: Increasingly severe wildfires, fueled by warmer temperatures and drier conditions, are burning through vegetation and organic soil layers, releasing stored carbon as CO_2. The

study notes that when wildfire emissions are factored in, up to 40% of the ABZ becomes a carbon source.

Permafrost Thaw: Rising temperatures are melting permafrost, exposing previously frozen organic matter to microbial decomposition, which releases CO_2 and methane (a more potent greenhouse gas). This process is particularly pronounced in tundra regions.

Greening vs. Emissions: While warmer conditions have led to a "greening" of the ABZ—longer growing seasons and more vegetation—only a small fraction of these areas shows a net increase in carbon uptake. The carbon released from thawing soils and fires often outweighs the gains from photosynthesis.

Niveshak Didi" initiative

Why in news? Recently, the Investor Education and Protection Fund Authority (IEPFA) and India Post Payments Bank (IPPB) launched Phase 2 of the "Niveshak Didi" initiative.

What is Niveshak Didi Phase 2?

It is a joint effort by the Investor Education and Protection Fund Authority (IEPFA) and India Post Payments Bank (IPPB) aimed at improving financial literacy among women in rural and underserved areas. The goal is to empower women by educating them about managing finances and creating a ripple effect of financial awareness in their communities.

Background: Phase 1 Highlights:

Why was it launched?

- To address gaps in financial education, particularly among rural women who often lack access to basic banking and financial knowledge.

What was done?

- Women postal workers and community leaders were trained as financial educators.
- **Results of Phase 1:**
    - Over **55,000 participants**, with a majority being women.
    - About **60% of participants** came from rural areas, showing its strong grassroots reach.

Goals of Phase 2:

Phase 2 focuses on scaling up the initiative by:

1. Conducting **4,000 financial literacy camps** across India.
2. Training **40,000 women postal workers** to lead these camps.
3. Teaching crucial financial topics:
    - How to invest responsibly.
    - Recognizing and avoiding fraud.
    - Building good savings habits.
    - Using digital banking tools effectively.

Role of India Post Payments Bank (IPPB):

- **Purpose:** To bring accessible banking to every citizen, especially in underserved areas.
- **How it helps:**
    - Utilizes India's extensive postal network to connect with rural populations.
    - Builds trust within local communities by partnering with a familiar and credible institution.
    - Promotes financial discipline, helping rural families plan and manage money better.

Optional Practical Training (OPT)

Why in News? The USA government has recently brought a bill that seeks to end the **Optional Practical Training (OPT) Program.**

What is Optional Practical Training (OPT)?

- It is a temporary employment authorization program for F-1 visa students in the United States, allowing them to gain practical work experience directly related to their major field of study. Administered by the U.S. Citizenship and Immigration Services (USCIS) and overseen by the Student and Exchange Visitor Program (SEVP),

OPT is a key benefit of F-1 status, enabling students to work off-campus either before or after completing their academic programs.

Key Details:

Eligibility:

- Students must have been enrolled full-time for at least one academic year (two semesters) at an SEVP-certified institution (e.g., college, university).
- Applies to each higher degree level (e.g., bachelor's, master's, doctorate), allowing 12 months per level, unless disqualified by excessive Curricular Practical Training (CPT).
- Not available for students in English as a Second Language programs.

Types of OPT:

Pre-Completion OPT: Work authorization before degree completion, limited to 20 hours per week during school sessions and full-time during breaks. Time used reduces post-completion OPT.

Post-Completion OPT: Up to 12 months of full-time or part-time work after completing degree requirements, starting within 60 days of program end.

STEM OPT Extension: A 24-month extension (totaling 36 months) for students with STEM degrees (per the DHS STEM Designated Degree Program List), provided the employer uses E-Verify and the job aligns with the degree.

Pilicode Rayaramangalam Bhagavathi Temple

Why in News? The centuries-old Pilicode Rayaramangalam Bhagavathi Temple in Kasaragod, Kerala, has made history by opening its inner sanctum (nalambalam) to devotees from all communities for the first time. This landmark decision marks the end of caste-based restrictions that had been in place for centuries.

Key Points:

Historical Move:

- **First-Time Access:** Devotees from all communities entered the nalambalam of the temple on the eve of Vishu, marking an end to caste-based discrimination.
- **Sacred Space:** Previously, only select communities like Brahmin, Marar, and Warrier were permitted in the inner sanctum.

Reformist Campaign:

- **Initiatives:** The reform was led by the **Pilicode Ninav Purush Swayaamsahaya** Sangham, a men's self-help group, and the Janakiya Samithi, a people's committee comprising socio-cultural and political organisations.
- **Petitions:** Appeals were made to the **Tantri (head priest**), the State Devaswom Minister, and the temple administrative committee to advocate for universal access.

Implementation:

- **Moment of Change:** Around 8 a.m., a group of 16 devotees, followed by others, stepped into the nalambalam for the first time.
- **Tantri's Role:** Initially, the Tantri allowed devotees to pray near the inner sanctum without affecting rituals. Entry was granted after the festival ceremonies concluded.
- **Permanent Reform:** The **Janakiya Samithi** confirmed that the access to the inner quarter is a permanent change.

About Pilicode Rayaramangalam Temple:

It is a centuries-old Hindu temple located in Pilicode, Kasaragod district, Kerala, India. It is renowned for its cultural and historical significance, particularly as a site for the traditional Theyyam festival, a vibrant folk ritual theatre form.

Historical Significance: The temple is an ancient site with deep-rooted traditions, believed to be associated with the worship of **Bhadra Kali**, a fierce form of the goddess, facing north. Its history includes legends of harmony, such as the peaceful coexistence of cows and tigers in the area, reflecting its past as a serene locale known as **Pulikkadu (Tigers' Forest**).

Cultural Practices: The temple hosts Theyyam performances, such as Urpazhassi Thira, with notable events recorded as early as April 2009. These rituals involve deities like **Bhagavati,** with stories of divine interventions, such as a **Muchilōṭan's encounter with Devi, later deified as Thalachchiravan Daivaṃ.**

Operation Brahma

Why in News? Operation Brahma is in the news due to India's swift humanitarian response to a devastating 7.7-magnitude earthquake that struck Myanmar and Thailand on March 28, 2025, causing widespread destruction. This operation showcases India's commitment as a "First Responder" in the region, delivering critical aid to Myanmar.

Key Points of Operation Brahma:

- **Launch Date**: Initiated on March 29, 2025, following the earthquake.
- **Participating Forces**: Involves the Indian Navy, Army, Air Force, and NDRF, coordinated by the Ministry of External Affairs (MEA) and Headquarters Integrated Defence Staff.
- **Navy Deployment**:
    - INS Satpura and INS Savitri sailed from Eastern Naval Command to Yangon on March 29 with 52 tons of relief material.
    - INS Karmuk and LCU 52 departed from Andaman and Nicobar Command on March 30 with additional relief supplies.
- **Relief Material**: Includes essential clothing, drinking water, food, medicines, and emergency stores.
- **Objective**: Provide Humanitarian Assistance and Disaster Relief (HADR) to earthquake-affected regions in Myanmar.

Other Recent Operations of India (2024-25):

- **Operation Ajay (September-October 2024)**: Evacuated over 4,000 Indian nationals from Israel amid the Israel-Hamas conflict, using special Air India flights and naval support.
- **Operation Kaveri (April-May 2024)**: Rescued approximately 3,700 Indian citizens from Sudan during the civil war, utilizing IAF aircraft and Indian Navy ships.
- **Operation Ganga (February-March 2022, extended support into 2024)**: Continued assistance and evacuation of Indians from Ukraine, with over 18,000 evacuated, though main operations concluded in 2022, with follow-up efforts in 2024.

Consumer Food Price Inflation (CFPI)

Why in News? Consumer Food Price Inflation (CFPI) dropped to a three-year low of 2.7% in March, a significant decline from 3.75% in February, as per the **Centre for Monitoring Indian Economy (CMIE) data.**

Relevance for UPSC Prelims and Mains:

- ***Prelims:*** Important for questions related to inflation trends, economic indicators, and CMIE reports. Topics- Consumer Food Price Inflation (CFPI) Retail Inflation/Whole sale Inflation
- ***Mains:*** Relevant for topics under GS III – Indian Economy, inflation control measures, and their impact on citizens and food security.

Key Points of News:

- **CFPI Trends:** CFPI fell to 2.7% in March, marking the lowest level in three years, reflecting easing price pressures on essential food items.
- **Reasons for Decline:** Decline attributed to reduced prices of vegetables, cereals, and other key food products.
- **Economic Implications:** Lower CFPI improves household purchasing power and reduces food expenditure burden on low-income families.
- **Impact on Monetary Policy:** Decline in CFPI may influence RBI's monetary policy stance, providing more room to focus on growth-oriented measures.
- **Regional Disparities:** While national CFPI decreased, regional variations persist due to supply chain issues and localized demand-supply dynamics.

About Consumer Food Price Inflation (CFPI):

- CFPI measures the change in prices of food items consumed by households.
- It is a subset of the **Consumer Price Index (CPI**) and reflects the inflation rate of essential food commodities.
- Key components include cereals, pulses, vegetables, meat, and dairy products.

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