NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

Date: 18-12-2024

Table of Content
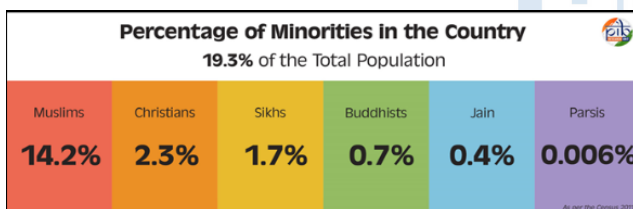
MINORITIES RIGHTS DAY

Context

- Minorities Rights Day is observed annually on **December 18** in India to protect and promote the rights of minority communities.

About

- The Day is observed to commemorate the adoption of the **UN Declaration on the Rights of Persons Belonging to National or Ethnic, Religious, and Linguistic Minorities** on December 18, 1992.
    - India officially began recognizing this day in **2013.**

Minority in India

- **Religious Minority:** The basic ground for a community to be nominated as a **religious minority is the numerical strength** of the community.
    - **Section 2, clause (c)** of the **National Commission of Minorities Act,** declares **six communities** as minority communities. They are: Muslims, Christians, Buddhists, Sikhs, Jains and Zoroastrians (Parsis).
- **Linguistic Minorities:** Class or group of people whose mother language or mother tongue is different from that of the majority groups is known as the linguistic minorities.

Percentage of Minorities in the Country
19.3% of the Total Population

Muslims	Christians	Sikhs	Buddhists	Jain	Parsis
14.2%	2.3%	1.7%	0.7%	0.4%	0.006%

As per the Census 2011

Challenges faced by minorities

- **Social Discrimination:** Minorities face prejudice in daily life, employment opportunities, and housing, leading to social exclusion.
- **Economic Disparities:** Lower literacy rates, limited access to quality education, and unequal employment opportunities contribute to economic backwardness.
- **Political Underrepresentation:** Minorities often have limited participation in policymaking and governance, reducing their influence on decision-making processes.
- **Hate Crimes:** Incidents of targeted violence and communal unrest disrupt social harmony, fostering fear and insecurity within minority communities.

Constitutional and legal safeguards

- **Fundamental Rights: Articles 14, 15, 16, and 21** of the Indian Constitution guarantee equality before the law, prohibit discrimination on grounds of religion, race, caste, sex, or place of birth, and ensure equal opportunities in public employment.
- **Cultural and Educational Rights: Articles 29 and 30** protect the rights of minorities to preserve their language, script, and culture, and to establish and administer educational institutions of their choice.
- **Special Provisions: Article 350A** ensures the right to receive education in their mother tongue for children belonging to linguistic minority groups.
- **National Commission for Minorities (NCM):** It was established in 1992 and monitors the implementation of safeguards for minorities, addresses their grievances, helps to promote their welfare and protect their rights.
- **The Ministry of Minority Affairs** was established in **2006,** carved out from the Ministry of Social Justice & Empowerment, to focus on issues concerning the minority.

Government Initiatives for Minorities

- **Prime Minister's 15-Point Programme:** Aimed at the socio-economic and educational empowerment of minorities, this programme focuses on better access to education, healthcare, employment, and housing for minority communities.
- **Maulana Azad National Fellowship (MANF):** The scheme provided financial assistance for five years to research scholars pursuing M.Phil and Ph.D.
- **Naya Savera:** To provide free coaching to minority students of classes 11-12 with science subjects for entrance to technical and professional courses and competitive examinations.
- **Jiyo Parsi Scheme:** Launched in **2013-14,** the scheme aims to reverse the declining Parsi population in India through targeted interventions.

Way Ahead

- India's commitment to diversity is exemplified in the vibrant cultures, religions, and languages that coexist across the country.
- Providing better access to schools, colleges, and technical institutions in minority-concentrated areas can help overcome geographical and socio-economic barriers.

Source: TH

INDIA'S MINERAL DIPLOMACY

In Context

- India, as a major importer of critical minerals, is focusing on strengthening its mineral security to support its manufacturing and technological growth while **reducing its dependence on countries like China.**

About

- In a response to a question in the Parliament, the Indian government stated that the **country is fully dependent on imports for its lithium requirements**, with **China alone accounting for 70 to 80 percent of India's lithium** and lithium-ion imports.

- India is also dependent on **China for meeting 60 percent of its natural graphite imports.** Both are extremely crucial for the battery and Electric Vehicle (EV) industry. In addition, India's reliance on imports for cobalt, nickel and copper is between 93 to 100 percent.

- In the FY 2023-24, **India spent over INR 34,000 crores on importing these four minerals.**

Pillars of India's Mineral Diplomacy

- **International Engagement and Strategic Partnerships:** Partnering with resource-rich countries like Australia, Argentina, Russia, Kazakhstan, and USA to secure lithium, cobalt, and other critical minerals. The establishment of **KABIL (Khanij Bidesh India Ltd.)** is a key step in this direction.
  - **Key Developments:**
    - Australia: Agreement for two lithium and three cobalt projects.
    - Argentina: $24 million pact for lithium exploration in 2024.
    - Kazakhstan: Joint venture for titanium slag production.
  - The **US-led Mineral Security Partnership (MSP) established** in June 2022 addresses four major critical minerals challenges by firstly, "Diversifying and stabilising global supply chains; secondly, investment in those supply chains; thirdly, promoting high environmental, social, and governance standards in the mining, processing, and recycling sectors; and fourthly, increasing recycling of critical minerals".

- **Multilateral Initiatives:** India is also engaging with multilateral forums like **Quad, Indo-Pacific Economic Framework (IPEF), Mineral Security Partnership (MSP)**, and G-7 for sustainable critical mineral supply chains.

- **Knowledge Sharing and Capacity Building:** Engagement with global partners like the EU, South Korea, and Australia to adopt global best practices across the upstream, midstream, and downstream segments of the supply chain.

Challenges in Mineral Diplomacy

- **Limited Private Sector Participation:** Lack of a clear policy and road map for private sector involvement. Since November 2023 the ministry of mines has carried out four rounds of auctions totalling 49 critical mineral blocks. But most of the mineral blocks have remained unsold due to insufficient number of bids.
  - Absence of a supply chain strategy to de-risk investments.

- **Lack of Process Technology:** The lack of response from the domestic mining industry could be attributed to various reasons, prominent among them is the unavailability of extraction and processing technologies within India, thus making India completely dependent on imports from China.
  - Critical minerals which are available deep underground such as cobalt, lithium, nickel, and copper are difficult to explore and mine as compared to those available closer to the surface.

- **Weak Diplomatic Capacity:** Need for a dedicated mineral diplomacy division within the Ministry of External Affairs.
  - Lack of specialized positions for mineral diplomacy in diplomatic missions.

- **Insufficient Sustainable Partnerships:** Requires building trusted, long-term partnerships with strategic allies like the EU, South Korea, and Quad members.

Way Forward

- **Enhanced Private Sector Role:** Develop a clear strategy and incentives to encourage private sector investment in mineral exploration, processing, and technology development.

- **Strengthened Diplomatic Engagement:** Invest in specialized diplomatic capacity and expertise to effectively negotiate mineral deals and build strong partnerships.

- **Comprehensive Strategy:** Formulate a national critical mineral strategy that outlines clear goals, priorities, and a roadmap for achieving mineral security.

- **Sustainable Practices:** Prioritize sustainable and responsible sourcing of critical minerals, adhering to environmental and social standards.

Source: TH

INDIA'S REFUGEE POLICY AND ROHINGYA CONCERNS

Context

- India's refugee policy toward the Rohingya has come under scrutiny following a report highlighting the dire conditions faced by Rohingya refugees in detention camps across the country.

About the Report

- The report was jointly prepared by The Azadi Project (a U.S.-based non-profit) and Refugees International.

- It reveals gross violations of constitutional and human rights, criticizing India's inability to honor its commitments under international human rights treaties.

Who are Rohingya?

- They are an **ethnic group**, largely comprising Muslims, who predominantly live in the **Western Myanmar province of Rakhine.**

- They speak a **dialect of Bengali,** as opposed to the commonly spoken Burmese language.

- Though they have been living in the South East Asian country for generations, Myanmar considers them as persons who migrated to their land during Colonial rule.

  - Myanmar has classified them as **"resident foreigners" or "associate citizens".**

- They have suffered decades of **violence, discrimination, and persecution** in Myanmar.

India's Policy on Refugees

- India is neither a signatory to the **1951 UN Refugee Convention or the 1967 Protocol relating to the Status of Refugees,** nor does it have a formal refugee policy or law.

- The government can classify any group of refugees as **illegal immigrants**, as seen in the case of the Rohingya, despite verification by the **United Nations High Commissioner for Refugees (UNHCR).**

- All foreign undocumented nationals are governed as per the provisions of **The Foreigners Act, 1946, The Registration of Foreigners Act, 1939, The Passport (Entry into India) Act, 1920** and **The Citizenship Act, 1955.**

Reasons for India's Policy on Refugees

- **Resource Strain:** Hosting refugees strains resources along with competing for low-skilled jobs especially in areas with limited infrastructure.

- **Social Cohesion:** Large refugee influxes lead to social tensions with local communities over scarce resources.

- **Security Concerns:** There are fears of extremist infiltration and challenges in managing movements across porous borders.

- **Diplomatic Relations:** Refugee hosting strain relations with neighboring countries, particularly during geopolitical disputes.

- **Economic Impact:** Refugees compete for low-skilled jobs, affecting the local job market and limiting potential economic contributions.

Way Ahead

- **Establishing a National Refugee Law** would provide legal protection to refugees, ensuring their rights and access to basic services like healthcare, education, and employment.

- **International Collaboration:** India should actively engage with international organizations like the UNHCR to create frameworks for refugee protection, ensuring that its policies align with global human rights standards.

- **Diplomatic Dialogue:** India can work with neighboring countries to resolve the root causes of refugee crises, such as the ongoing violence against the Rohingya in Myanmar, through diplomatic channels and regional cooperation.

Source: TH

PARLIAMENTARY COMMITTEE RECOMMENDATIONS ON MSP

Context

- The Standing Committee on Agriculture, Animal Husbandry and Food Processing, submitted a comprehensive report to Parliament highlighting the **potential benefits of a legally guaranteed MSP.**

Recommendations

- To increase the amount given to farmers under the **PM-KISAN scheme to ₹12,000 per annum from ₹6000 given at present.**
  - To extend the incentive to tenant farmers and farm labourers too.
- To declare a roadmap for **implementing MSP as a legal guarantee** at the earliest.
- Establishing a N**ational Commission for Minimum Living Wages** for Farm Labourers.
- Introducing a **debt waiver scheme** for farmers and farm labourers.
- Renaming the agriculture department to include farm labourers.

What is the Minimum Support Price?

- It is a form of **market intervention** by the Government to insure agricultural producers against any sharp fall in farm prices.
- The prices are announced by the Government at the **beginning of the sowing season for certain crops** on the basis of the recommendations of the **Commission for Agricultural Costs and Prices (CACP).**
- The major objectives are to **support the farmers** from distress sales and to procure food grains for public distribution.

Crops Covered under MSP

- **Kharif Crops (total 14)** like paddy, jowar, bajra, maize, ragi, tur/arhar, moong, urad, groundnut, soyabean, sunflower, sesamum, niger seed, cotton;
- **Rabi Crops (total 06)** like wheat, barley, gram, masur/lentil, rapeseed and mustard, and safflower;
- **Commercial Crops (total 02)** like jute and copra.
  - MSP for Toria and de-husked coconut is also fixed on the basis of MSPs of rapeseed & mustard and copra respectively.

Need for the MSP

- **Farmer Welfare:** Ensures farmers do not incur losses when market prices fall below production costs.
- **Agricultural Stability:** Provides income stability and encourages continued farming.
- **Food Security:** Ensures adequate production of essential crops, supporting national food security.

Arguments in Favour of Legalising MSP

- **Farmer Protection:** Legalizing MSP ensures a guaranteed price for farmers, shielding them from volatile market conditions and preventing exploitation by middlemen.
- **Income Stability:** It provides farmers with a stable income, helping them meet production costs and improve their financial security.
- **Encourages Agricultural Investment:** Knowing they have a safety net, farmers are more likely to invest in better farming practices, leading to increased productivity and efficiency.
- **Food Security:** A legally mandated MSP ensures the government can procure essential crops, supporting national food security and preventing shortages.
- **Poverty Reduction:** By ensuring fair prices for their produce, MSP helps reduce rural poverty and improve the overall standard of living for farmers.
- **Balanced Market Regulation:** Legal MSP can reduce market price fluctuations, ensuring fair trade and equitable distribution of agricultural products.

Arguments Against Legalising MSP

- **Market Distortions:** Legal MSP could lead to market imbalances by encouraging overproduction of certain crops, disrupting supply-demand dynamics.
- **Fiscal Burden:** It would put pressure on government finances, as they may need to buy and store surplus produce, leading to high procurement costs.
- **Inefficient Resource Allocation:** Legal MSP might result in the misallocation of resources, as farmers may focus on MSP-supported crops rather than diversifying or adopting more sustainable practices.
- **Corruption and Middlemen Exploitation:** Legalizing MSP may increase the scope for corruption, with middlemen taking advantage of the procurement system, reducing benefits to

actual farmers.

- **Stifling Agricultural Reforms:** It could hinder necessary reforms by making the agricultural market too reliant on government intervention, rather than fostering a competitive and efficient market system.

- **Encouraging Dependency:** Farmers may become overly reliant on MSP, discouraging innovation, market diversification, and adaptation to changing market needs.

Conclusion

- The debate around the legality of MSP in India is complex and multifaceted. It involves considerations of economic policy, agricultural sustainability, and social justice.

- While the demand for a legal guarantee for MSP is strong among farmers, the government and policy makers need to consider the broader implications of such a move.

Source: TH

INDIA'S E-WASTE SURGES BY 73% IN 5 YEARS

In News

- India's e-waste generation increased by 73% in five years, from 1.01 million metric tonnes (MT) in 2019-20 to 1.751 million MT in 2023-24.

What is E-waste?

- It consists of discarded electronic and electrical devices that have reached the end of their lifespan or become obsolete due to rapid technological changes, including computers, phones, TVs, and other equipment.

Reasons for Surge

- The increasing **adoption of electronic products,** fueled by **technological advancements** and affordable internet access, has greatly improved living standards worldwide.

  - However, this **digital revolution** has also led to a significant **rise in electronic waste (e-waste).**

- The sharpest rise in e-waste occurred between 2019-20 and 2020-21, linked to the **demand** for **electronic devices** due to **work-from-home and remote learning during the pandemic.**

Concerns and Challenges

- **Environmental and Health Concerns:** E-waste contains toxic substances like arsenic, cadmium, lead, and mercury, which can **harm the environment and human health** if not properly managed.

- **Lack of State-Level Data**: There is no state-wise data on e-waste generation; instead, national-level figures are estimated from sales data and average lifespan of electronic items.

- **Challenges in Recycling:** The low recycling rate is attributed to inefficiencies in engaging stakeholders.

- **Lack of Tax Incentives**: The government has not implemented a tax credit system to encourage manufacturers to design recyclable, sustainable electronics.

- **Informal Sector:** The large, unregulated informal sector complicates tracking and adhering to environmental norms.

- **Data Privacy Concerns**: Many consumers are hesitant to recycle devices due to fears about personal data security.

Government Efforts:

- The **E-Waste (Management) Rules, 2022**, introduced **Extended Producer Responsibility (EPR)** to ensure producers are responsible for recycling and disposal through authorised recyclers.

- **EPR Mechanism**: Producers are assigned annual recycling targets based on e-waste generation and product sales. They must purchase **EPR certificates from registered recyclers** to meet these targets.

> **Do you know ?**
> - The **Basel Convention** controls the transboundary movement of hazardous wastes and their disposal.
> - It is a comprehensive environmental agreement that aims to tackle issues surrounding hazardous wastes, including e-waste and its management.

Role of Circular Economy

- A circular economy seeks to reuse electronic components rather than simply salvaging them.

  - This model emphasizes that every material is a resource, not waste.

  - India needs policies to encourage manufacturers to reuse old components, similar to China's goal of using 35% secondary raw materials by 2030.

What more needs to be done ?

- E-waste is a global crisis that needs equitable, cross-border e-waste management strategies to mitigate the "**environmental and health damage**" caused when high-income countries export their e-waste to low-income regions.

- **Public institutions** (schools, government offices) are considered bulk consumers and must ensure their e-waste is handled by registered recyclers.

- There is a call for public-private partnerships for setting up reverse supply chains to collect and recycle devices.

- And Focusing on a circular economy for e-waste is critical, especially with the shrinking supply of new components. Formalizing the recycling process and extracting full value from electronics will require capital and better resource clustering.

  - The **informal sector's role in collection** and disposal needs to be integrated with formal systems.
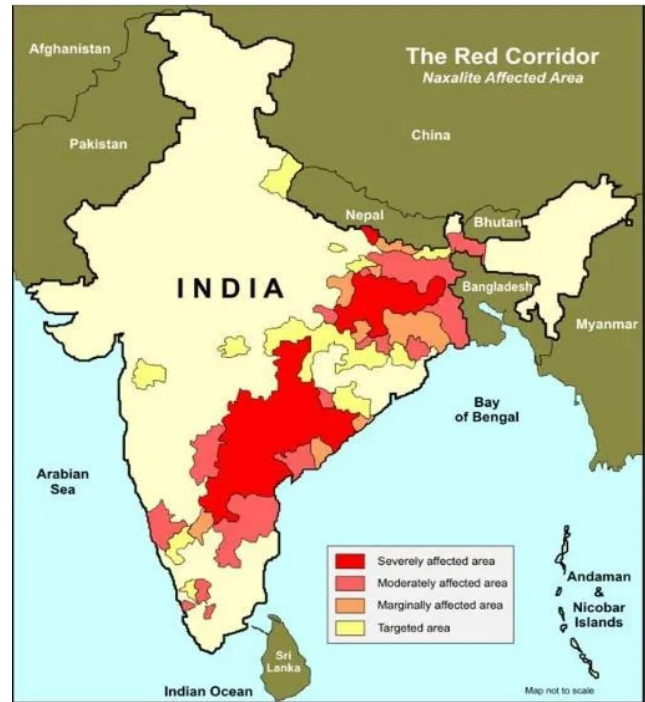
Source :DTE

NAXALISM

Context

- Recently, the Union Ministry of Home Affairs has reaffirmed the government's commitment to eradicating Naxalism in Chhattisgarh by March 31, 2026.

Naxalism in India

- **Naxalism** (aka Left Wing Extremism) has been a significant internal security challenge for India.

- Originating from the **Naxalbari uprising in West Bengal in 1967**, it has evolved into a complex insurgency affecting several states across India.

- **Naxals** strongly believe that the solution to social and economic discrimination is **to overthrow the existing political system.**

  - They are a group of people who **believe in the political theory** derived from the teachings of the **Chinese political leader Mao Zedong.**

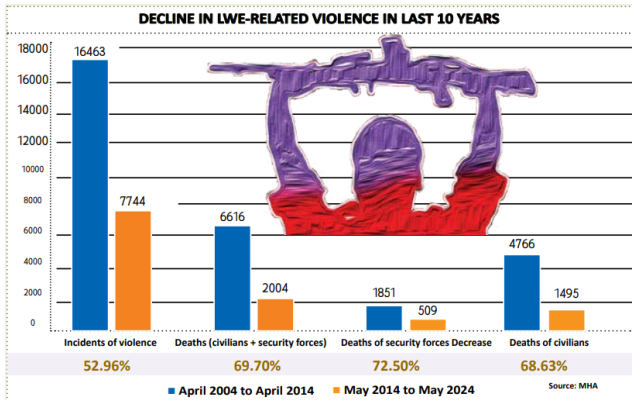- Naxal affected areas in India are known as the **'Red Corridor'.**

Historical Background

- The Naxalite movement began **as a peasant uprising led by Charu Majumdar and Kanu Sanyal**, advocating for land reforms and the rights of the marginalized.

- Over the decades, the movement spread to other states, including Chhattisgarh, Jharkhand, Odisha, West Bengal, Andhra Pradesh, Telangana, Maharashtra, Madhya Pradesh and Kerala.

- The Naxalites, **primarily composed of the Communist Party of India (Maoist)**, have used guerrilla warfare tactics to challenge state authority.

Current Scenario

- The number of **districts** affected by Naxalism has **reduced from 126 in 2013 to 38 in 2024.**

- 53% reduction in incidents and a 70% decrease in casualties among security personnel and civilians between 2014 and 2024.

- The government **aims to completely eradicate Naxalism by March 2026.**

DECLINE IN LWE-RELATED VIOLENCE IN LAST 10 YEARS

	Incidents of violence	Deaths (civilians + security forces)	Deaths of security forces Decrease	Deaths of civilians
April 2004 to April 2014	16463	6616	1851	4766
May 2014 to May 2024	7744	2004	509	1495
	52.96%	69.70%	72.50%	68.63%

Source: MHA

Reasons For Spread

- **Socio-Economic Inequality:** Many regions affected by Naxalism are characterized by extreme poverty, lack of basic amenities, and limited access to education and healthcare.
  - The marginalized communities, including SCs and STs, often feel neglected and deprived of their rights and resources.

- **Land Reforms and Agrarian Distress:** Large tracts of land remain concentrated in the hands of a few, while the majority of the rural population struggles with landlessness and insecure tenancy.
  - This agrarian distress fuels discontent and provides fertile ground for Naxalite recruitment.

- **Political Marginalization:** Many tribal and backward regions have historically been excluded from mainstream political processes.
  - The lack of representation and voice in decision-making bodies has led to a sense of alienation and frustration among these communities.

- **Exploitation and Human Rights Violations:** Reports of police brutality, arbitrary arrests, and extrajudicial killings have fueled anger and resentment among the affected populations.
  - Such actions often drive people towards Naxalism as a form of resistance against state oppression.

- **Lack of Development:** Poor infrastructure, inadequate public services, and limited economic opportunities contribute to the sense of neglect and abandonment felt by the local population.
  - Developmental initiatives often fail to reach these remote areas, leaving the residents with few alternatives but to support or join the Naxalite movement.

Bandyopadhyay Committee (2006)

- It highlighted the lack of governance, economic, socio-political and cultural discrimination against the tribals as the chief reason for the spread of Naxalism.

- The Committee recommended tribal-friendly land acquisition and rehabilitation as a means to counter this issue.

Government's Strategy

- **Rehabilitation Policies** through Encouraging Surrenders & Reintegrate Into Society.

- **Strengthening and Collaborating Various Security Forces:** Enhanced coordination between central and state forces has led to significant successes.
  - Ensuring effective deployment of Central Armed Police Forces (CAPFs) and specialized units like Greyhounds.
  - In Chhattisgarh alone, 287 Naxalites were neutralized, around 1,000 were arrested, and 837 surrendered in the past year.

- **Intelligence Strengthening** through enhancing real-time intelligence sharing through **Multi-Agency Centers (MACs) and UAV surveillance.**

- **Development Initiatives** like the Road Connectivity Project, Aspirational Districts Program, and Bastar Olympics to improve infrastructure.

- **Skill Development** through various central schemes like Pradhan Mantri Kaushal Vikas Yojana (PMKVY) and state schemes and programmes.

Key Initiatives

- **SAMADHAN Strategy:** A comprehensive approach involving Smart Leadership, Aggressive Strategy, Motivation and Training, Actionable Intelligence, Dashboard-Based KPIs and KRAs, Harnessing Technology, Action Plans for each Theatre, and No Access to Financing.

- **Three-Pronged Strategy:** Welcoming those willing to renounce violence, intensifying efforts to apprehend those who refuse, and taking strict action against individuals intent on harming others.

- **National Policy and Action Plan (2015):** It envisages a multi-pronged strategy involving security related measures, development interventions, ensuring rights and entitlements of local communities etc

- **Tribal Youth Exchange Programs (TYEPs)** are being organized through **Nehru Yuva Kendra Sangathan (NYKS)** for enhancing our outreach to the tribal youth of LWE affected districts.

- **Capacity building of States** to combat LWE through schemes of the Ministry of Home Affairs like Security Related Expenditure (SRE), Special Infrastructure, and Special Central Assistance etc.

Source: PIB

NEWS IN SHORT

MOLDOVA

In News

- India expressed gratitude to Moldova for its crucial support in airlifting stranded Indian nationals during the Ukraine crisis, as part of Operation Ganga.

About Moldova

Geography : It is a landlocked country lying in the northeastern corner of the Balkan region of Europe.

- It is bordered by Ukraine and Romania.
- **Chisinau** – the Capital
- **Rivers**: Prut river, Dniester river, Danube River etc.
    - It has a well-developed network of streams and rivers draining the land to the Black Sea.
- Moldova declared its independence from the Soviet Union in 1991 and established diplomatic relations with India in 1992
    - The two nations also signed agreements on visa waivers for diplomatic passport holders and enhanced collaboration between foreign service institutes.

Source :TH

SUPPLEMENTARY DEMANDS FOR GRANTS

Context

- The Lok Sabha has approved the Supplementary Demands for Grants-First Batch for 2024-2025.

About Supplementary Demands for Grants

- **Definition:** The Supplementary Demand for

Grants refers to an additional funding request made by the government when the allocated funds for a particular purpose in the annual budget are insufficient or when a need arises for unforeseen expenditure during the financial year.

- Governed under Article 115 of the Indian Constitution. Requires the approval of Parliament and the necessary funds are drawn from the Consolidated Fund of India (CFI)
- **Purpose:** To meet the additional requirements when funds sanctioned in the Annual Budget are inadequate.
    - To cover expenses that were not anticipated at the time of the budget's approval.
- **Types of Supplementary Grants:**
    - **Supplementary Grant:** For additional funds over and above the amount approved in the annual budget.
    - **Excess Grant:** Granted when money spent exceeds the amount sanctioned in the budget.
    - **Token Grant:** A small sum (1) is sought for the Parliament's approval to reallocate funds within different heads of accounts.
    - **Advances from Contingency Fund:** For meeting urgent, unforeseen expenditures, later regularized through supplementary grants.

Source: TH

BANGLAR BARI SCHEME

Context

- West Bengal Chief Minister launched the "Banglar Bari" scheme **to provide houses for the rural poor in the State.**

About

- It is a housing scheme funded completely by the West Bengal Government.
- Under the scheme, a total of 1.20 lakh will be given to a family for constructing a house, of which 60,000 in the first instalment.
- However, beneficiaries in some areas of Jangalmahal and Dargeeling hills will get 1.30 lakh.

Source: TH

CREDIT GUARANTEE SCHEME FOR E-NWR BASED PLEDGE FINANCING (CGS-NPF)

In News

- Union Minister Shri Pralhad Joshi launched the **Credit Guarantee Scheme for e-NWR based Pledge Financing (CGS-NPF)** with a corpus of Rs 1,000 crore for post-harvest finance for farmers.

About the scheme

- It aims to minimize distress selling by farmers by providing loans against electronic negotiable warehouse receipts (e-NWRs) for agricultural produce stored in accredited warehouses.

- It is designed to instill confidence in banks to offer pledge finance against e-NWRs for farmers and traders who store produce in WDRA-registered warehouses.

- **Targeted Beneficiaries:** The scheme mainly targets small and marginal farmers, women, SC/ST, and PwD farmers, with minimal guarantee fees. MSMEs and FPOs also benefit.

- **Loan Coverage:** Loans up to Rs 75 lakh for small farmers will have an 80-85% guarantee, while loans up to Rs 200 lakh for MSMEs/FPOs/traders will have a 75% coverage under the scheme.

Importance

- **Farmers' Welfare Focus:** The scheme aligns with the government's commitment to farmers' welfare, with references to efforts like providing urea at the lowest prices globally despite rising international costs.

- The scheme addresses **both credit risks and warehouseman risks**, improving trust among banks in post-harvest finance.

- The scheme aims to increase post-harvest lending from Rs 5.5 lakh crore over the next 10 years.

Source :PIB

SEARCH AND RESCUE AID TOOL (SARAT)

In News

- The INCOIS has developed a newer version of its own Search and Rescue Aid Tool (SARAT)

About SARAT

- **Developed by: Indian National Centre for Ocean Information Services (INCOIS)** Aids Indian Search and Rescue (SAR) agencies, like

the Indian Coast Guard, in search operations at sea.

- **First launched:** 2016.

- **Updated version:** SARAT 2 improves accuracy and usability based on feedback from extensive Coast Guard operations.

Significance

- Enhances efficiency in search and rescue operations.

- Supports the Coast Guard and other agencies in saving lives by reducing search areas.

- Incorporates feedback from real-life operations for improved reliability.

About INCOIS

- **Autonomous Organization:** INCOIS operates as an autonomous organization under the Ministry of Earth Sciences (MoES) in India.

- **Location:** It's headquartered in Hyderabad, Telangana.

- **Purpose:** Continuously monitors the Indian Ocean using a network of buoys, tide gauges, and satellites. This data is used to provide a range of oceanographic information and forecasts.

Source: TH

ARCTIC TUNDRA IS EMITTING MORE CARBON THAN IT ABSORBS

Context

- A new study confirms that the Arctic tundra, once a stable carbon storehouse, has now turned into a source of **carbon dioxide (CO_2) and methane (CH_4)** emissions.

How does the Arctic tundra store carbon?

- In typical ecosystems, carbon dioxide (CO) is absorbed by plants through **photosynthesis** and released back during decomposition

- However, the Arctic tundra's extreme cold significantly slows decomposition, causing plant and animal remains to remain frozen in **permafrost—ground that stays frozen for at least two consecutive years.**

    - This traps carbon for thousands of years, preventing its release into the atmosphere.

- Arctic soils currently store more than **1.6 trillion metric tonnes** of carbon, making the region vital for the global carbon cycle.

Reasons for emitting more Carbon

- **Rising Temperatures:** The Arctic is warming at

four times the global average.

- ◆ Thawing permafrost activates soil microbes that decompose frozen organic matter, releasing **CO_2 and CH_4.**
- **Increased Wildfires:** The Arctic has seen unprecedented wildfire activity, with **2023** and **2024** recording historic emissions.
  - ◆ Wildfires release CO , accelerate permafrost thaw, and expose deeper soil layers, further intensifying greenhouse gas emissions.

Source: IE

HYDROXYMETHANESULPHONATE

In News

- Researchers found that in **very cold temperatures (-35°C)**, the **chemistry of PM2.5 changes**, causing a rise in **hydroxymethanesulphonate (HMS)**.

Hydroxymethanesulphonate (HMS)

- **Hydroxymethanesulphonate (HMS)** is a harmful component and its formation, previously thought to occur only in clouds and fog.
  - ◆ But recently it is found to occur in **aerosols** during winter, when **sulfur dioxide and formaldehyde react** in the presence of liquid water.

- **Acidity Shift:** The acidity of PM2.5 changes rapidly in winter, due to the concentration of sulphate and ammonium ions, making conditions more favorable for HMS production.

- **Effect of the 2022 Fuel Ban:** The ban on high-sulfur fuel led to a relative increase in ammonium ions in PM2.5, lowering the acidity and encouraging the formation of HMS.

Significance of recent study

- The study's findings are significant for understanding aerosol formation in cold regions and provide new insights into aerosol thermodynamics, with potential relevance for other cold, urban, and industrial areas globally.

- While the study's findings are mainly applicable to cold regions, such as parts of the Himalayas or Andes, they provide valuable insights into how temperature changes affect air quality and chemical pathways, especially amid global warming.