# CURRENT AFFAIRS WEEKLY

WEEK: 1
JANUARY
2024

## MAINS

### GS- I

- MANUAL SCAVENGING: A DEEP-ROOTED INJUSTICE

### GS- II

- EMPOWERING HATTI COMMUNITY AND INITIATIVES FOR ECONOMIC GROWTH IN HIMACHAL PRADESH
- ENSURING DIGITAL FINANCIAL INCLUSION: MANDATORY AADHAR-LINKED PAYMENTS FOR MGNREGS WORKERS
- MODERNIZING BROADCASTING REGULATIONS: THE CENTRE'S VISION FOR OTT AND DIGITAL MEDIA
- INDIA CLOSING IN ON LITHIUM-DEAL WITH ARGENTINA, TAPPING AUSTRALIA AND CHILE
- SHIFTING TIDES: CHALLENGES TO THE GLOBAL NUCLEAR ORDER
- INDIA-ITALY MIGRATION AND MOBILITY AGREEMENT: STRENGTHENING BILATERAL TIES
- TRANSFORMING INDIA-MYANMAR BORDER POLICIES: SCRAPPING THE FREE MOVEMENT REGIME

### GS- III

- CAN SOUTHEAST ASIA AFFORD TO RETIRE ITS COAL PLANTS?
- CLIMATE CHANGE: THE HOTTEST YEAR
- ITIS: NURTURING A SKILLED WORKFORCE FOR INDIA'S INDUSTRIAL GROWTH
- INDIA'S STATIONARY COURSE IN THE SHIPPING VALUE CHAIN
- INDIA'S TEXTILE SECTOR AND GLOBAL ESG NORMS
- RADIOCARBON DATING
- PROTECTING THE INDIVIDUAL FROM THE AI
- ISRO TO LAUNCH XPOSAT AND 10 OTHER PAYLOADS
- THE BLOOD MANAGEMENT SYSTEM NEEDS A FRESH INFUSION
- ANOTHER EYE IN SKY, ON GROUND: INDIA IS NOW PART OF WORLD'S LARGEST RADIO TELESCOPE PROJECT

## PRELIMS

### ART AND CULTURE

- Warli Tribe's Battle for Land: Clash with Shivaji Museum Project in Mumbai

### GEOGRAPHY

- Beyond spice to medicine, culture, & more

### INTERNATIONAL RELATIONS

- Argentina rejects invitation to join BRICS nations

### POLITY AND GOVERNANCE

- Arvind Panagariya Appointed Chairman of 16th Finance Commission
- "Viksit Bharat Sankalp Yatra" Boosts Beneficiary Numbers
- Scheme for Residential Education for Students in High Schools in Targeted Areas (SHRESHTA)

### SCIENCE AND TECHNOLOGY

- COVID19 subvariants
- India is testing AI for improved weather forecasting
- India's GSAT-20 Satellite Set for SpaceX's Falcon-9 Launch, Elevating Space Connectivity

### ECOLOGY AND ENVIRONMENT

- Buxa Tiger Reserve, Tiger Spotted after 4 years

## NEWS IN SHORT

- Nritya Kalanidhi Award
- Navy unveils Shivaji-inspired new design for Admirals' epaulettes
- National Maritime Domain Awareness Centre
- Russia, NASA agree to continue joint ISS flights until 2025
- Bab al Mandeb
- Ishikawa, Japan
- Hyperlocalisation

## SPECIALS

- **Hope of stability in the Hills: The peace pact with ULFA**

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# – Disclaimer –

The current affairs articles are segregated from prelims and mains perspective, such separation is maintained in terms of structure of articles. Mains articles have more focus on analysis and prelims articles have more focus on facts.

However, this doesn't mean that Mains articles don't cover facts and PT articles can't have analysis. You are suggested to read all of them for all stages of examination.

CURRENT AFFAIRS WEEKLY

# CONTENTS

## WEEK - 1 (JANUARY, 2024)


| Section - A: MAINS CURRENT AFFAIRS | | | |
|---|---|---|---|
| **Section of GS** | | **Topics in News** | **Page No.** |
| GS I | SOCIETY | • Manual scavenging: A Deep-Rooted Injustice | 02 |
| GS II | GOVERNANCE & SOCIAL JUSTICE | • Empowering Hatti Community and Initiatives for Economic Growth in Himachal Pradesh | 03 |
| | | • Ensuring Digital Financial Inclusion: Mandatory Aadhar-Linked Payments for MGNREGS Workers | 03 |
| | | • Modernizing Broadcasting Regulations: The Centre's Vision for OTT and Digital Media | 04 |
| | INTERNATIONAL RELATIONS | • India closing in on lithium-deal with Argentina, tapping Australia and Chile | 06 |
| | | • Shifting Tides: Challenges to the Global Nuclear Order | 07 |
| | | • India-Italy Migration and Mobility Agreement: Strengthening Bilateral Ties | 08 |
| | | • Transforming India-Myanmar Border Policies: Scrapping the Free Movement Regime | 09 |
| GS III | ENVIRONMENT | • Can Southeast Asia afford to retire its coal plants? | 09 |
| | | • Climate change: The hottest year | 10 |
| | ECONOMY | • ITIs: Nurturing a Skilled Workforce for India's Industrial Growth | 11 |
| | | • India's stationary course in the shipping value chain | 12 |
| | | • India's textile sector and global ESG norms | 13 |
| | SCIENCE AND TECHNOLOGY | • Radiocarbon dating | 15 |
| | | • Protecting the individual from the AI | 16 |
| | | • ISRO to launch XPoSat and 10 other payloads | 18 |
| | | • The blood management system needs a fresh infusion | 19 |
| | | • Another eye in sky, on ground: India is now part of world's largest radio telescope project | 20 |

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| Section - B: SPECIAL | | | |
|---|---|---|---|
| | Section of GS | Topics in News | Page No. |
| GS III | INTERNAL SECURITY | • Hope of stability in the Hills: The peace pact with ULFA | 24 |
| **Section - C: PRELIMS CURRENT AFFAIRS** | | | |
| Section of GS | | Topics in News | Page No. |
| GS I | ART AND CULTURE | • Warli Tribe's Battle for Land: Clash with Shivaji Museum Project in Mumbai | 30 |
| | GEOGRAPHY | • Beyond spice to medicine, culture, & more | 31 |
| GS II | INTERNATIONAL RELATIONS | • Argentina rejects invitation to join BRICS nations | 31 |
| | POLITY AND GOVERNANCE | • Arvind Panagariya Appointed Chairman of 16th Finance Commission | 32 |
| | | • "Viksit Bharat Sankalp Yatra" Boosts Beneficiary Numbers | 32 |
| | | • Scheme for Residential Education for Students in High Schools in Targeted Areas (SHRESHTA) | 33 |
| GS III | SCIENCE AND TECHNOLOGY | • COVID19 subvariants | 34 |
| | | • India is testing AI for improved weather forecasting | 34 |
| | | • India's GSAT-20 Satellite Set for SpaceX's Falcon-9 Launch, Elevating Space Connectivity | 36 |
| | ECOLOGY AND ENVIRONMENT | • Buxa Tiger Reserve, Tiger Spotted after 4 years | 36 |
| **Section - D: SHORT NEWS** | | | |
| Section of GS | | Topics in News | Page No. |
| ART & CULTURE | | • Nritya Kalanidhi Award | 41 |
| POLITY AND GOVERNANCE | | • Navy unveils Shivaji-inspired new design for Admirals' epaulettes | 41 |
| INTERNAL SECURITY | | • National Maritime Domain Awareness Centre | 41 |
| SCIENCE AND TECHNOLOGY | | • Russia, NASA agree to continue joint ISS flights until 2025 | 42 |
| **LOCATION IN NEWS** | | | |
| • Bab al Mandeb | | | 42 |
| • Ishikawa, Japan | | | 43 |
| **CONCEPT IN NEWS** | | | |
| • Hyperlocalisation | | | 43 |

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# Section A [MAINS]


- Manual scavenging: A Deep-Rooted Injustice
- Empowering Hatti Community and Initiatives for Economic Growth in Himachal Pradesh
- Ensuring Digital Financial Inclusion: Mandatory Aadhar-Linked Payments for MGNREGS Workers
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- Protecting the individual from the AI
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- Another eye in sky, on ground: India is now part of world's largest radio telescope project

# MANUAL SCAVENGING: A DEEP-ROOTED INJUSTICE

**Context: The Karnataka High Court took up suo motu cognisance of the issue based on a report.**

- Manual scavenging, the practice of manually cleaning, carrying, and disposing of human excreta, persists as a grim reality in contemporary India. Despite legislative measures, this dehumanizing practice is still prevalent, entwined with social, economic, and caste-based complexities.

## Persisting Practices:

- **Caste-Based Occupation:** Manual scavenging is historically linked to the caste system, particularly affecting the Dalit community. It has been a traditional occupation imposed on certain castes, perpetuating social hierarchy and discrimination. The link between sanitation work and manual scavenging remains strong.
- **Lower Mechanisation:** Even with technological advancements, some sanitation jobs are perilously relegated to manual scavengers. Inadequate adoption of modern sanitation technologies, especially in smaller towns and rural areas, contributes to the continued reliance on manual scavenging. Recent examples of death of sanitation workers in Delhi and Karnataka tells the apathy of government and society towards workers.

## Challenges and Associated Issues:

- **Degrading Dignity:** Manual scavenging strips individuals of their dignity, exposing them to health hazards, humiliation, and societal exclusion. Since "untouchability" was legally abolished by The Untouchability (Offences) Act, 1955, manual scavenging has been regularly discussed in Parliament.
  - The practice was banned through the Employment of Manual Scavengers and Construction of Dry Latrines (Prohibition) Act, 1993.
  - In 2013, the government enacted a stronger law, the Prohibition of Employment as Manual Scavengers and their Rehabilitation Act. As per rules, manual cleaning is allowed with precautionary measures only in such cases where machines cannot be deployed.
  - Despite laws prohibiting manual scavenging, implementation loopholes and inadequate enforcement contribute to its persistence. Many engaged in manual scavenging belong to marginalized communities, facing economic vulnerability and limited employment opportunities.
- **Social Stigma:** The association of manual scavenging with particular castes perpetuates social stigma, hindering upward mobility and reinforcing discriminatory practices. Even the Efforts toward rehabilitation and alternative livelihoods for manual scavengers often fall short, leaving individuals trapped in this hazardous profession.
  - Lack of awareness among the general public about the plight of manual scavengers contributes to a muted response and limited advocacy for change.

## Why it persists?

- **Deep-Rooted Discrimination:** Caste-based discrimination continues to marginalize certain communities, limiting their access to education, employment, and social mobility.
- **Ingrained Practices:** Generational occupation and societal conditioning contribute to the normalization of manual scavenging within certain communities. Observing the same, the apex court in its decisions have highlighted the plight and apathy.

> Those engaged in "India's dirtiest job" are predominantly Dalits, who face social exclusion and violence across the country owing to their caste identity. "No place in the world sends people to gas chambers to die," the Supreme Court in 2019 while asking the Centre why protective gear was not provided to sanitation workers.
>
> In its judgment in *Delhi Jal Board vs National Campaign for Dignity and Rights of Sewerage and Allied Workers & Ors* (2011), the apex court stated: "The human beings who are employed for doing the work in the sewers cannot be treated as mechanical robots, who will not be affected by poisonous gases in the manholes. The state and its agencies or the contractors engaged by them are under a constitutional obligation to ensure the safety of the persons who are asked to undertake hazardous jobs."

- **Lack of Political Will:** Comprehensive policy implementation, backed by political will, is often lacking, perpetuating systemic injustices.
- **Societal Apathy:** Apathy toward the struggles faced by manual scavengers allows the practice to persist without adequate public outcry and demand for change.
- The eradication of manual scavenging necessitates a multi-faceted approach. This includes stringent enforcement of existing laws, economic empowerment of affected communities, eradicating caste-based discrimination, and raising public

awareness to foster a collective resolve against this deeply entrenched social evil. Until these measures are effectively implemented, manual scavenging will persist as a stark reminder of the persistent inequalities within Indian society.

## EMPOWERING HATTI COMMUNITY AND INITIATIVES FOR ECONOMIC GROWTH IN HIMACHAL PRADESH

**Context:** **The Himachal Pradesh government has taken significant steps to address the longpending demand of granting Scheduled Tribes (ST) status to the Hatti community in the Transgiri area of Sirmaur district. It also launched a few programmes for the economic growth in the state.**

### Granting ST Status to Hatti Community:

- The Hatti community, residing in **154 panchayats of Sirmaur district's Transgiri area**, has been advocating for ST status.
- The government's move follows the passage of the **Constitution (Scheduled Tribes) Order (Second Amendment) Bill, 2023**, and subsequent notification by the President on August 4, 2023.
- The delay in implementation was due to the state government seeking **clarification from the Centre**.

### Need for Granting ST Status:

- The Hatti community's demand for ST status echoes similar recognition granted to the **JaunsarBawar area of Uttarakhand in 1967**.
- Despite similarities in **social, cultural, and geographical aspects between Hatti and Jaunsari** communities, the Transgiri area was excluded.
- The recent decision rectifies this **historical injustice**, fulfilling a promise made to the Hatti community.

### About Hatti Community of Himachal Pradesh:

- The Hatti community of **Sirmaur district's Transgiri area** has a unique cultural and historical background.
- Their demand for ST status stems from the desire for **equitable representation and socioeconomic empowerment.**
- The recent notification granting them **Scheduled Tribes status** marks a significant milestone in their journey for recognition.

### Initiatives for Economic Growth:

- The state Cabinet has launched the Phase2 of the **Rajiv Gandhi Swarozgar StartUp Yojna**.
- This initiative aims to **provide loans** and encourage individuals aged between **21 to 45 years** to engage in businesses related to the installation of **solar power plants**.
- The scheme, focusing on capacities ranging from 100 kW to 500 kW, aligns with the state's renewable energy targets.
- This step is anticipated to create selfemployment opportunities and contribute to economic growth among the youth.
- The Cabinet has also given the nod to the **'Sarkar Gaon Ke Dwar' program**, scheduled from January 8 to 12, which will be conducted across the state.

## ENSURING DIGITAL FINANCIAL INCLUSION: MANDATORY AADHAR-LINKED PAYMENTS FOR MGNREGS WORKERS

**Context:** **The government has mandated the use of Aadhaar-based payment systems (ABPS) for the disbursement of wages under the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) scheme.**

### Background:

- The initiation of the **ABPS for MGNREGS** workers began on **January 30, 2023**.

- The recent extension, **until December 31, 2023, marked the fifth prolongation of the deadline**, allowing state governments time to align databases.
- However, this move has been accompanied by a **notable surge in deletions of MGNREGA job cards**, raising questions about the link between the mandatory ABPS and the reduction in the number of active workers.

## Need for ABPS Implementation:

- The government's decision to make ABPS mandatory stems from its intention to **streamline wage disbursement and enhance transparency.**
- The system requires workers' Aadhaar details to be linked to their job cards, aiming to **expedite payments and minimize rejections.**

## Ineligibility Statistics:

- According to data from the Union **Rural Development Ministry,** as of December 27, 34.8% of job card holders remain ineligible for ABPS.
- The criteria for eligibility are based on active workers, **defined as those who have worked at least one day over the last three financial years.**
- Of the **25.25 crore registered workers, 12.7% of active workers are still not eligible for ABPS**.

## Deletions and Pressures on States:

- Ground reports and anecdotal evidence suggest that states, **under pressure to achieve 100% ABPS-eligible job cards, have deleted a significant number of cards**.
- Reasons for deletions include **discrepancies between Aadhaar and job card details**, such as variations in names.
- **LibTech India reports that 7.6 crore workers** have been deleted from the system in the past 21 months, a figure higher than the number now deemed ineligible for payment.

## Activists' Concerns:

- Activists argue that enforcing ABPS with a substantial portion of **MGNREGA workers rendered ineligible infringes upon the right to work**.
- This, they claim, **contradicts the spirit of the Act passed by Parliament**.
- They call for the revocation of mandatory ABPS implementation, **the reinstatement of erroneously deleted workers, and compensation for the loss of work opportunities**.

## ABPS Mechanism and Government's Perspective:

- ABPS utilizes the worker's unique **12-digit Aadhaar** number as their financial address.
- For a worker to be paid under ABPS, their **Aadhaar details must be linked to their job card,** bank account, and the National Payments Corporation of India (NPCI) database.
- The government **asserts that ABPS implementation will enhance efficiency, prevent leaks, ensure prompt payments, and reduce rejections**.

## Conclusion:

- The move towards mandatory Aadhaar-linked payments for MGNREGS workers is a significant step in the **digitization of financial processes**.
- However**, concerns about eligibility criteria, deletions, and potential denial of the right to work** underscore the need for a balanced approach that ensures digital financial inclusion without adversely impacting vulnerable workers.
- **The government must address these concerns and consider alternatives to achieve a seamless transition to ABPS** while safeguarding the interests of MGNREGA workers.

# MODERNIZING BROADCASTING REGULATIONS: THE CENTRE'S VISION FOR OTT AND DIGITAL MEDIA

**Context:** **The new draft Broadcasting Services (Regulation) Bill, 2023, signaling a comprehensive overhaul of the regulatory landscape governing traditional television, digital media, and over-the-top (OTT) platforms.**

**Purpose:** The proposed legislation aims **to replace the Cable Television Networks (Regulation) Act**, ushering in new regulations for the broadcasting sector.

## Background:

- The draft bill expands the **regulatory framework to encompass a wide spectrum, ranging from conventional television services to emerging technologies like OTT platforms and digital content**.
- Released for **public consultation by the Ministry of Information and Broadcasting**, the bill aims to streamline regulations and provide a unified legal structure for various broadcasting services.

## Need for Regulation:

- The government asserts that the proposed bill is essential to **enhance the ease of doing business, ensure compliance with broadcasting codes, and adapt the regulatory framework** to meet the evolving needs of the sector.
- However, **concerns have been raised regarding potential threats to freedom of speech and censorship**, especially in the context of increased scrutiny over content deemed **"obscene and vulgar" in the digital media realm.**

## Key Provisions of the Bill:

### 1. Intimation of Operations:

- All broadcasting entities, including OTT platforms, must formally register or intimate the government before providing services.
- Cable and satellite broadcasting operators must register, and broadcasters need approval from the registering authority.

### 2. Modern Broadcasting Terminologies:

- The bill defines key terms such as broadcasting, broadcaster, broadcasting network, broadcasting network operator, internet broadcasting network, and news and current affairs programmes.

### 3. Content Quality and Accessibility:

- Programmes must adhere to Programme Code and Advertisement Code.
- Broadcasters need to classify their content based on various parameters, prominently displaying the classification to enable informed viewing decisions.
- Accessibility guidelines are introduced for persons with disabilities, emphasizing measures like audio descriptions, sign language translations, and subtitles.

### 4. Self-Regulation:

- Broadcasters and network operators are required to establish Content Evaluation Committees (CEC) for self-regulation.
- The proposed three-tier regulatory structure includes self-regulation, self-regulatory organizations, and a Broadcast Advisory Council.

### 5. Provision for Inspection and Seizure:

- The government and authorized officers can inspect broadcasting networks and services.
- Seizure of equipment is allowed in case of violations, with penalties imposed unless compliance is demonstrated within 30 days.

### 6. Penalties for Non-Compliance:

- Penalties include removal of objectionable content, orders, apologies, off-air periods, and even cancellation of registration.
- Monetary penalties and imprisonment are prescribed for serious offenses, with the penalty amount based on the entity's financial capacity.

## Modern broadcasting terminologies as defined in the Bill

### What is broadcasting?

- One-to-many transmission of audio, visual or audio-visual programmes using a broadcasting network, intended to be received or made available for viewing, by the general public or by subscribers of the broadcasting network.
- A **"broadcaster"**, meanwhile is a person who provides programming services and has been provided a registration for uplinking or downlinking of programmes, in relation to Radio, OTT and terrestrial broadcasting networks.

### What is a broadcasting network?

- A system used for the transmission of programmes, including cable broadcasting networks, satellite broadcasting networks, internet broadcasting networks, radio broadcasting networks and terrestrial broadcasting networks.

### Who is a broadcasting network operator?

- Any person who operates a broadcasting network, and has been granted a registration, licence or permission or who has provided an intimation to provide services using a broadcasting network.
- This includes cable operators, multi-system operators, DTH operators, headend-in-the-sky operators, IPTV operators, OTT broadcasting service operators, radio broadcasting service operators, and terrestrial broadcasting network operators.

**What is an internet broadcasting network?**

- A system for the delivery of broadcasting services and programmes using the internet, over a computer resource, or using Internet Protocol, to subscribers or viewers, and includes IPTV and OTT broadcasting services.

**What comes under 'news and current affairs programmes'?**

- Audio, visual or audio-visual programmes or live programmes, including analysis about recent events primarily of socio-political, economic or cultural nature, and programmes where the context, purpose, import and meaning of such programmes implies so.

**What about OTT?**

- A broadcasting service available on-demand or live to subscribers or users in India, and where a curated catalogue of programmes owned by, licensed to, or contracted to be transmitted, over the internet or a computer resource, not being a closed network; and where additional hardware or software or combination including a set-top-box, or dongle and software keys may be required to access content on non-smart televisions or viewing devices.

## Main Concerns:

- The bill's **broad scope**, especially its application to both traditional broadcasters and the evolving OTT space, has garnered mixed reactions.
- Concerns include **potential overreach**, increased censorship, and the impact on freedom of expression in the digital space.
- Digital rights organizations emphasize the need for a **cautious examination of the bill**, particularly in terms of potential self-censorship and executive control over OTT content.
- While the draft Broadcasting Services (Regulation) Bill seeks to **modernize and unify regulations** for broadcasting services in India, concerns persist regarding its potential impact on freedom of expression and the dynamic nature of the digital space.
- Striking a balance between **regulatory measures and safeguarding creative expression** will be crucial as the bill progresses through consultations and potential revisions.

# INDIA CLOSING IN ON LITHIUM-DEAL WITH ARGENTINA, TAPPING AUSTRALIA AND CHILE

**Context:** **The mineral is a cornerstone in India's switch to green energy thereby reducing its carbon footprints**

## India and Green Energy Transition

- India, in its pursuit of securing critical minerals for its green energy transition, has taken a significant step by entering into a draft exploration and development agreement with Argentinian miner CAMYEN.
- This move is orchestrated by the Mines Ministry through **Khanij Bidesh India Ltd (KABIL),** a state-owned entity.
- The focus lies on acquiring and developing lithium blocks, a key component in the production of lithium-ion batteries crucial for electric vehicles (EVs) and energy storage solutions.

## The Significance of Latin America in Lithium Supply Chain

- **Latin American nations**, particularly Chile and Argentina, play a pivotal role in the global lithium supply chain.
- Collectively, they **contribute 30–35% of the world's lithium supplies**.
- **Chile,** with **11% of global lithium reserves**, **alone supplies 26% of the global requirements**.
- **Argentina,** with nearly **one-fifth of the global resources**, **contributes about 6%.**

## India's Push for Critical Minerals

- **Critical minerals:** India's increased focus on **critical minerals**, including lithium, is driven by its commitment to **green energy and reducing carbon footprints**.
- **White gold:** Known as **'white gold**,' lithium is a cornerstone in India's transition to green energy, with applications ranging from EVs to lithium-ion battery production.

## Domestic Auctions and Import Scenario

- **Lithium regions in India:** India has recently put up lithium blocks for auction, including one in **Jammu and Kashmir** and another in **Chhattisgarh.**

- **Imports:** Despite domestic efforts, a significant portion of India's lithium requirements, spanning EVs, battery manufacturing, and energy storage solutions, is met through imports, constituting an **import bill of around ₹24,000 crore.**

## KABIL's Focus and Global Engagements

- **KABIL,** a joint venture involving companies like **NALCO, HCL, and MECL**, is strategically positioned to **secure lithium and cobalt for the domestic market**.
- As of September 2023, the focus includes engaging with proje**cts in Australia, Argentina, and Chile**.

## Way Forward

- **Securing critical minerals:** India's foray into lithium acquisitions in Argentina and engagements with key players in Chile reflects a proactive approach in **securing critical minerals** for its burgeoning green energy sector.
- **Sustainable energy solutions:** As the world shifts towards **sustainable energy solutions**, India's strategic moves in the lithium market position it as a key player in the global transition to clean and renewable energy sources.

# SHIFTING TIDES: CHALLENGES TO THE GLOBAL NUCLEAR ORDER

**Context: The global nuclear order (GNO), established during the Cold War, is facing unprecedented challenges in the current geopolitical landscape.**

## Background:

- The GNO emerged in the aftermath of the **Cuban Missile Crisis in 1962,** with the U.S. and the U.S.S.R. taking the lead in creating mechanisms to prevent nuclear escalation.
- This led to the establishment of the **hotline and subsequent arms control negotiations**.
- The **Nuclear Non-Proliferation Treaty (NPT) in 1968 and the formation of the Nuclear Suppliers Group in 1975** further solidified the order.
- The evolution of **nuclear dynamics, changing power structures, and emerging threats have put the stability of the GNO into question**.

## Need for Global Nuclear Order:

- The primary goals of the GNO were to maintain **a taboo against nuclear weapons use and control their proliferation**.
- Over the years, it has seen **success in preventing the spread of nuclear weapons** to a limited number of countries.

## Challenges and Changing Geopolitics:

- **Bipolarity to Multipolarity:** The **bipolar dynamics of the Cold War era no longer define the global nuclear landscape**. The rise of **China as a major player, challenging the U.S.,** has introduced a new dimension to nuclear relations.
- **Strain on U.S.-Russia Treaties:** The **withdrawal of the U.S. from the Anti-Ballistic Missile Treaty** in 2002 and the **Intermediate-Range Nuclear Forces Treaty** in 2019, coupled with the uncertainty around the **New START agreement**, has strained the U.S.-Russia nuclear relationship.
- **Emergence of Nuclear Peer Rivals**: The U.S. now faces nuclear peer **rivals in Russia and China**, disrupting traditional notions of strategic stability. The collapse of strategic stability talks in the wake of the **Ukraine war** adds to the uncertainty.
- **Technological Shifts**: The 75-year-old nuclear technology is undergoing shifts, with concerns raised over the **potential use of more usable weapons**. The **AUKUS deal with Australia, a non-nuclear state**, has raised questions within the Nuclear Non-Proliferation Treaty community.

## Nuclear Dynamics in Asia:

- **South Korea and Japan's Nuclear Ambitions:** South Korea's consideration of a **nuclear weapons program** and Japan's shift in sentiment towards **nuclear deterrence** indicate the changing landscape in East Asia.
- **Uncertainty in U.S. Extended Deterrence**: U.S. allies in East Asia, **including Japan, South Korea, and Taiwan,** are reevaluating their reliance on

U.S. extended deterrence. Domestic concerns and geopolitical shifts are pushing them to reconsider their nuclear capabilities.

- The global nuclear order, **once a stabilizing force, is now navigating through uncharted waters**. The evolving geopolitical landscape, technological advancements, and shifting alliances require a reassessment of nuclear policies and international cooperation. As the world grapples with emerging threats, **the future of the GNO hangs in the balance.**

## INDIA–ITALY MIGRATION AND MOBILITY AGREEMENT: STRENGTHENING BILATERAL TIES

**Context:** **The Union Cabinet has provided ex-post facto approval for the Migration and Mobility Agreement between India and Italy.**

**Benefits:** This move aims to foster stronger **people-to-people contacts, facilitate mobility for students and professionals, and enhance cooperation** on issues related to **irregular migration**.

### Background:

- The Migration and Mobility Agreement, signed on November 2, 2023, by External Affairs Minister Dr. S. Jaishankar and Italy's Minister of Foreign Affairs and International Cooperation Shri Antonio Tajani.

### Need for Agreement:

- The Agreement addresses the need for a **formalized framework** to regulate migration and mobility between India and Italy.
- By doing so, it aims to create **pathways for enhanced collaboration**, particularly in areas such as **education, professional training, and workforce mobility**.

### Key Provisions:

#### 1. Temporary Residence for Indian Students:

- Indian students completing academic or vocational training in Italy can be **granted temporary residence for up to 12 months.**
- The Agreement includes mechanisms for **post-study opportunities, internships, and professional training.**

#### 2. Professional Training and Internships:

- The Italian side outlines provisions **for professional training, extracurricular internships, and curricular internships.**
- These provisions enable Indian students and trainees to gain experience **in Italian skill and training standards.**

#### 3. Quotas for Non-Seasonal and Seasonal Workers:

- The Agreement **reserves quotas for non-seasonal Indian workers** (5000, 6000, and 7000 for 2023, 2024, and 2025, respectively) and seasonal Indian workers (3000, 4000, and 5000 for 2023, 2024, and 2025, respectively) under the current Flows Decree.
- The **Italian side offers incremental reserved quotas for both seasonal and non-seasonal workers** from 2023-2025.

#### 4. Joint Working Group (JWG):

- The Agreement formalizes joint working on **mobility pathways between India and Italy**.
- Agreements on **Youth Mobility and the facilitation of recruitment of Indian professionals** in the healthcare and medical services sectors will be discussed under the JWG.

#### 5. Cooperation Against Irregular Migration:

- The Agreement formalizes cooperation between the two nations in **combating irregular migration, addressing a shared concern.**

### Implementation and Monitoring:

- The Agreement outlines a mechanism for monitoring through a **Joint Working Group (JWG).**
- The JWG will periodically meet, either virtually or physically, to **oversee the implementation of the Agreement,** share relevant

information, and discuss proposals for its effective execution.

### Duration and Renewal:

- The Agreement will come into **effect on the first day of the second month** following the completion of internal procedures by both parties.
- It will remain in **force for five years and will be automatically renewed for successive periods unless terminated by any participant**.

## TRANSFORMING INDIA–MYANMAR BORDER POLICIES: SCRAPPING THE FREE MOVEMENT REGIME

**Context: The Union government has proposed significant changes in the border policies along the India-Myanmar border, aiming to replace the existing Free Movement Regime (FMR). This move has been prompted by concerns about misuse of the FMR by militants and criminals.**

### Background:

- India and Myanmar share a unique relationship with a largely unfenced border of 1,643 km, passing through **Arunachal Pradesh, Nagaland, Manipur, and Mizoram.**
- The FMR, **established in the 1970s and last revised in 2016,** allowed people residing within 16 km on either side of the border to cross with a border pass, fostering familial and ethnic ties.
- The **Union Home Ministry had constituted a committee (in 2017) headed by Rina Mitra**, Special Secretary-Internal Security, to examine the rules and regulations governing the FMR.

### Need for Change:

- The proposed changes come amid growing concerns about **security and misuse of the FMR.**
- The misuse, including the smuggling of weapons, contraband goods, and fake Indian currency notes, has prompted the **Union Home Ministry to form a committee to reevaluate the existing rules and regulations.**

### Proposed Changes:

- The government plans to fence **around 300 km of the border**, with a tender expected in the coming days.
- A completed **drone survey of the border areas will inform** the implementation of these changes.
- The move is anticipated to affect **States like Nagaland and Mizoram**, but the Centre emphasizes that **border security falls under its jurisdiction**.

### State Perspectives:

- **Manipur** had already suspended the **FMR in 2020 due to the COVID-19 pandemic**.
- Chief Minister has urged the **Ministry of Home Affairs to cancel the FMR, linking it to ethnic violence** in the state caused by the unrestricted movement of people across the border.
- The proposed changes in the India-Myanmar border policies mark a significant development in the region. **Balancing security needs with historical ties,** these changes aim to address the misuse of the Free Movement Regime, emphasizing the importance of securing the border against potential threats.

## CAN SOUTHEAST ASIA AFFORD TO RETIRE ITS COAL PLANTS?

**Context: Indonesia and Vietnam will need to balance their sustainability ambitions and financing, with the reality that many of the power systems already approved for construction will be coal-fired.**

### About Just Energy Transition Partnership (JETP):

- In recent developments, Indonesia and Vietnam have unveiled their plans to utilize funds from the **Just Energy Transition Partnership (JETP),** a **G7-backed initiative**, to drive sustainable development.
- The JETP, supported by the **International Partners Group and private banks in the West**, aims to **allocate €18 billion to Indonesia and €14.1 billion to Vietnam** for their green energy transition efforts.

### Indonesia's Ambitious Roadmap

#### 1. Targets and Projects

- Indonesia aims to raise the share of **renewable energy in its power generation to 44% by 2030**, a significant **increase from the previous target of 34%**.
- The **Comprehensive Investment and Policy Plan** outlines **400 priority projects**, seeking substantial investment from JETP donors.

### 2. Public Involvement

- The plan is currently in draft form, with the Indonesian government actively seeking stakeholder inputs to formulate a **final investment plan** expected to be released next year.
- **Edo Mahendra**, **Head of Indonesia's JETP Secretariat**, emphasizes the **public's role**, stating that **energy transition is a matter of public interest.**

## Funding Sources for Indonesia

### 1. Government and Development Banks

- **Japan, the US, and European governments and development banks will contribute half of the JETP funds**, primarily in the form of loans.
- Notable pledges include nearly **€1 billion from the European Investment Bank, €500 million from the French Development Agency,** and almost **€1.3 billion from Germany.**

### 2. Private Financing

- The **remaining €9 billion will come from private financing** through the **Glasgow Financial Alliance for Net Zero**, involving key **financial institutions such as BlackRock, Bloomberg, Brookfield, and HSBC.**
- The **initial $10 billion aims to jump-start clean energy investment**, with the expectation that the private sector will follow suit.

## Vietnam's Vision at COP28

### 1. Equity Investments and Grants

- At COP28, Vietnamese officials outlined their vision for utilizing **€14.1 billion in equity investments**, **grants, and concessionary loans from JETP.**
- The initiative has garnered support from the **International Partners Group,** private banks, and investors, showcasing a collaborative effort in sustainable development.

## Concerns and Controversies

### 1. Leaked Documents and Disappointments

- Reuters reported that **only 2% of the €7.3 billion committed to Vietnam will be in grants,** raising concerns about the **substantial reliance on loans,** some of which are at market rates.
- Indonesia's plan has faced **criticism for excluding power plants supplying off-grid systems**, potentially neglecting significant capacity and future projects in the coal sector.

### 2. Decarbonization Challenges

- **Indonesia acknowledges** the need for a detailed study and roadmap on **decarbonizing off-grid captive power systems,** addressing concerns raised by stakeholders.
- The **EU ambassador to Indonesia** emphasizes the opportunity to collaborate on off-grid decarbonization pathways.

## Regional Dynamics and Future Challenges

### 1. Comparison with China's Investments

- In contrast to **China's direct investments**, there are concerns in **Vietnam and Indonesia** about the nature of the support they receive through JETP.
- Critics argue that some proposals may be unambitious, potentially allowing for the continued **development of unsustainable energy production.**

### 2. JETP's Regional Impact

- **South Africa and Senegal have already joined the JETP**, while **India and China grapple with vast numbers of permitted and under-construction coal-fired power stations**.
- JETP's impact on the region's sustainability ambitions is a subject of ongoing debate, highlighting the complexities of balancing national interests and environmental commitments.

## Way Forward:

- As **Indonesia and Vietnam navigate the challenges and opportunities presented by the JETP**, the success of these initiatives hinges on effective collaboration, transparent planning, and responsiveness to stakeholder concerns.
- The **region's journey toward sustainable development** underscores the **delicate balance between economic growth and environmental responsibility.**

# CLIMATE CHANGE: THE HOTTEST YEAR

**Context:** **With temperatures at all-time high in 2023, 2024 will be pivotal in reducing emissions, without compromising developmental needs**

## The Urgency of Climate Action

- Eight years post-COP 21, the global community finds itself on the **brink of a climate catastrophe**, as the **1.5 degrees Celsius limit set in Paris** comes under

threat. The alarming rise in temperatures, escalating extreme weather events, and a grim forecast for 2024 demand immediate and comprehensive action.

## Alarming Temperature Trends in 2023

### *1.1: A Year of Records*

- In 2023, **global temperatures** soared perilously close to the **critical 1.5 degrees Celsius limit**, reaching an **average of 1.46 degrees Celsius above pre-industrial levels by November**. Unprecedented heatwaves marked every month since June, with two days in November surpassing 2 degrees Celsius above pre-industrial levels.

### *1.2: World Meteorological Organisation's Verdict*

- The World Meteorological Organisation (WMO) has unequivocally declared 2023 as the **warmest year on record**. This alarming confirmation intensifies concerns about the irreversible trajectory of climate change.

## The Impending Heat Surge in 2024

### *El Niño's Role*

- The WMO's provisional State of the Global Climate Report highlights the **role of the warming El Niño event in 2023**, set to exacerbate global temperatures in 2024. Experts anticipate a further spike in temperatures after the El Niño peaks, underlining the urgent need for proactive measures.

### *Critical Juncture for Climate Change*

- While the scientific community debates whether we've reached a point of no return, there is consensus that the **next seven years will be pivotal in reducing emissions and mitigating the escalating climate crisis.**

## Renewable Energy Progress and Storage Challenges

### *Positive Signs in Renewable Energy*

- Encouragingly, the **International Energy Agency** forecasts that **over 35% of the world's electricity** will be generated from **renewables by 2025**. However, the challenge lies in ensuring consistent power supply when renewable sources are intermittent.

### *Long Duration Energy Storage (LDES) Council*

- **At COP21 in Glasgow**, nations acknowledged the necessity of **Long Duration Energy Storage (LDES) technologies**. The LDES Council was established to facilitate the commercialization of these technologies, despite many still being in the pilot stage. However, the market for such solutions is in its infancy, and cost competitiveness remains a significant hurdle.

## Building Resilience Amidst Climate Uncertainty

### *Beyond Emissions: Building People's Resilience*

- Acknowledging the imperative for policymakers to address climate vulnerabilities, experts emphasize the importance of resilient measures. These include building sea walls, enhancing weather alert systems, upgrading urban drainage, installing irrigation systems, and promoting climate-adaptive crop choices.

### *Balancing Development and Climate Action*

- As the planet heats up, a delicate balance must be struck to address vulnerabilities without compromising developmental needs. Policymakers face the challenge of uplifting communities out of poverty while simultaneously adapting to a changing climate.

## Way Forward: A Call for Urgent, Global Action

- The 2023 temperature records and the looming threat of 2024 emphasize the urgency of decisive global action.
- Policymakers, scientists, and the public must collaborate to reduce emissions, accelerate the adoption of renewable energy, and build resilience to navigate the challenges posed by an increasingly unpredictable climate.
    - The coming years will define our ability to address the climate crisis and secure a sustainable future for generations to come.

# ITIS: NURTURING A SKILLED WORKFORCE FOR INDIA'S INDUSTRIAL GROWTH

**Context: The Industrial Training Institutes (ITIs) have been a crucial element of vocational education in India since 1950, contributing to the skill development of the workforce.**

## Issues:

- Despite **historical challenges and chronic under-investment**, recent initiatives are reshaping the ITI landscape, aligning it with the **evolving needs of the industrial sector**.

## Background:

- Since 2014, there has been a significant **growth of 47% in the number of ITIs**, reaching 14,993 institutions.
- The enrolment numbers **have surged from 9.46 lakh in 2014 to 12.4 lakh in 2022**, reflecting an increasing interest in vocational education.
- However, systemic challenges such as outdated **infrastructure, over-regulation, and a shortage of trainers** have hampered the full potential of ITIs.

## Need for Transformation:

- To address the evolving needs of the economy, there has been a **paradigm shift in ITI courses, with over 40% now focusing on service sectors.**
- Strategic partnerships with **IT companies have benefited 22 lakh individuals in the last five years.**
- The **push for modernization includes the rationalization of course durations**, the introduction of new-age skills courses, and the affiliation of ITIs for drone-related programs.

## Skilling and Skill-Industry-Efficiency Dynamics:

- To enhance the **skilling ecosystem**, a dual system of training has been implemented in 978 ITIs, facilitating learning in both industry and classrooms.
- Thirteen **memorandums with industry** partners have led to customized curriculums, aligning training with industry requirements.
- **The Bharat Skills portal**, launched in 2019, has provided digital access to educational resources, benefiting over 54 lakh ITI users and earning national recognition.

## Global Perspective on Vocational Education:

- Globally, vocational enrolment at the **upper-secondary level is much higher**, with figures ranging from 18% to 49% in countries like South Korea, Australia, and Germany.
- In contrast**, India's vocational enrolment is estimated at less than 6%**, reflecting the need for a shift in societal perceptions and systemic improvements.

## Challenges and Solutions:

- Despite the recent strides, a 2023 NITI Aayog study highlighted systemic challenges such as **outdated infrastructure, over-regulation, trainer shortages, and a curriculum lagging behind economic changes**.
- To address these, a **multi-faceted mission** is needed, focusing on awareness, counselling, infrastructure upgrade, trainer capacity building, and technology-enabled governance.

## ITIs as a Relevant Contributor:

- Despite under-investment, ITIs **remain relevant for the industrial sector**.
- A 2020 ministry assessment revealed that **ITI pass-outs possess technical knowledge and a superior ability** to understand job technicalities.
- With India positioning itself as a **manufacturing powerhouse,** ITI-based vocational training gains significance, aligning with initiatives like production-linked incentives and semiconductor manufacturing.

## Future Prospects:

- The **National Education Policy** envisions the integration of vocational and general education, aiming for 50% of students exposed to vocational education by 2025.
- Scaling up past efforts and reimagining **a skilled industrial workforce** are imperative to realizing the vision of a developed India.

# INDIA'S STATIONARY COURSE IN THE SHIPPING VALUE CHAIN

**Context: Boosting ship owning, chartering, financing and building would not only push India o the centre of the global maritime industry but also enhance its international trade presence.**

## The Yangtze River's Role in China's Maritime Dominance

- The **Yangtze River** has been integral to China's history, blending tradition, commerce, and culture.
- Today, it remains a **lifeline for modern China**, symbolized by the Three Gorges project.
- The Yangtze showcases a unique spectacle of massive merchant ships navigating in parallel convoys, emphasizing China's prowess in engineering, logistics, and shipping.

## India v/s China

- India was ahead in **maritime capabilities** until the late **1980s.** With a tradition of ship-owning and a strong presence in the International Maritime Organization, India had a promising start.
- India's growth in the maritime sector **focused on**

**supplying labor to the global market**. English-speaking Indian seafarers became commonplace, contributing to safety in the industry.

- Indians **evolved into ship management**, showcasing talent for value engineering.
- Indians managed companies contribute significantly to foreign exchange earnings, estimated at $6 billion annually.

## India's Challenges

- **Stagnation in Ship Owning and Building:**
  - India struggles to move up the shipping value chain, with ship owning, chartering, financing, and building largely inaccessible.
  - China, on the contrary, dominates global shipbuilding, producing half of the world's ships by 2020.
- **Government Support:** China's dedicated government plan propels shipbuilding and owning. Chinese shipowners primarily build ships at stateowned yards, ensuring control over the entire value chain.

## Government Initiatives and Policy Gaps in India

- **Maritime Agendas:** Previous and present governments introduced maritime agendas. However, India's share in global shipbuilding dropped, and Maritime India Vision 2030 lacks a concrete plan for shipbuilding and owning.

**Maritime Vision Document 2030:** It is a 10 Year blueprint on India's vision of a sustainable Maritime sector and vibrant blue economy.

- **Sagarmala Initiative:** While Sagarmala focuses on port infrastructure, naval ship orders dominate, neglecting the potential of shipbuilding for economic and strategic growth.

## The Strategic Imperative for India in Shipbuilding

- **Integral to Industrial and Naval Power:** Shipbuilding is essential for strengthening both industrial and naval power. It provides a seat at the global maritime table and enhances India's presence in international trade.
- **Military Significance:** A robust shipbuilding industry is integral to a strong naval base. Nagasaki's shipyard, chosen as a target during World War II, exemplifies the intertwined nature of naval strength and shipbuilding capabilities.
- **Economic Competitiveness:** Improved shipping infrastructure enhances India's role as a global trade hub, boosting economic growth and expanding export opportunities.
- **Geopolitical Significance:** India's strategic coastal position makes robust shipping infrastructure vital for geopolitical influence and ensuring national security.
- **Employment and Skill Development:** Developing shipping infrastructure generates employment for seafarers, addressing unemployment challenges and promoting skill development.
- **Integrated Supply Chains:** Efficient shipping infrastructure reduces logistics costs, enhancing industrial competitiveness and attracting domestic and foreign investments.
- **Regional Connectivity and Trade Facilitation:** Improved infrastructure fosters regional trade partnerships and strengthens diplomatic ties.

# INDIA'S TEXTILE SECTOR AND GLOBAL ESG NORMS

**Context: Small businesses in India's textile sector express concern over EU's CBAM rules and ESG norms impact.**

### What is Carbon Border Adjustment Mechanism?

- On **14 July 2021, the European Commission** published its proposal for a regulation establishing a **carbon border adjustment mechanism (CBAM).**
- The **core element of the CBAM** is the **obligation to pay for the greenhouse gas (GHG) emissions** embedded in certain carbon-intensive products imported into the European Union (EU) through the purchase of so-called CBAM certificates.
- The CBAM is conceived as a measure against the risk of carbon leakage, a phenomenon whereby companies move their production abroad to avoid the costs of complying with stringent environmental standards domestically or import cheaper foreign products that were not subject to a carbon price in their country of production.

## Sustainable Practices in Indian Textile Sector

- **Renewable Energy Dominance:** Tamil Nadu's textile sector contributes over 50% of the state's renewable energy capacity.

- **Sustainable Processes in Clusters:** Tiruppur showcases nearly 300 units connected to zero liquid discharge effluent treatment plants.

- **Recycled Fibers in Panipat:** Panipat's open-end spinners exclusively use recycled fiber, demonstrating a commitment to sustainable practices.

### What are ESG STANDARDS?

- **Environmental, Social, and Governance (ESG)** goals are a set of **standards** for a company's operations that force companies to follow better governance, ethical practices, environment-friendly measures and social responsibility.
- **Measurement of the company** is not restricted to just the **economic parameter** which includes such as shareholder return. But they are also measured by their **environmental impact, commitment to social issues** and the soundness of their corporate governance and protection of shareholder rights.
- The evolution of ESG laws and regulations is, however, still at a nascent stage in India,

## Challenges and Opportunities Amid ESG Shift

- **EU's environmental goals**, especially CBAM, pose challenges and opportunities for India's textile sector.
- **Concerns among MSMEs** in India's textile sector regarding EU's regulations and the imperative to adopt sustainable practices.
- Recognition that **embracing sustainability** can lead to a **paradigm shift**, solidifying India's textile sector as a top global supplier.

## ESG Compliance

- ESG demands from global buyers acknowledged as significant disruptors, prompting a strategic re-evaluation.
- Emphasis on exporters leveraging benefits through India's potential free-trade agreement with the EU by investing in sustainability.
- Necessity for documenting existing sustainable and inclusive social practices to comply with ESG standards, ensuring industry-wide benefits.

## Industry Response and Future Considerations

- **Annual Sustainability Reports:** Major garment exporters releasing annual sustainability reports, showcasing commitment to transparency and accountability.
- **Collaborative Green Footprints**: Textile clusters like Tiruppur showcasing collective green footprints, preparing for global exhibitions with sustainability-focused exhibits.
- **Financial and Institutional Support:** Initiatives by the Ministry of Textiles, industrial associations, and financial institutions to support ESG compliance, certification, and sustainable projects.

## Consequences of ESG norms on India's economy

- **Compliance Challenges:** Small and medium enterprises may face difficulties adhering to stringent ESG standards, leading to increased compliance costs and operational challenges.
- **Global Market Access**: ESG compliance could enhance India's access to global markets, especially those with a focus on sustainable practices, potentially boosting exports.
- **Investment in Sustainability:** Industries may need to invest in sustainable practices and technologies to meet ESG requirements, fostering innovation and resource efficiency.
- **Financial Implications:** The implementation of ESG norms may require financial institutions to fund green and sustainable projects, impacting the cost and availability of financing.
- **Competitiveness and Reputation:** Companies aligning with ESG norms may enhance their competitiveness and reputation, attracting environmentally conscious investors and consumers.
- **Government Initiatives:** The government may introduce supportive policies, task forces, and interventions to facilitate ESG compliance, aligning with global sustainability trends.
- **Shift in Consumer Behavior:** ESG awareness may influence consumer preferences, prompting a demand for sustainable products and influencing industries' production strategies.
- **Trade Negotiations**: ESG norms might be linked to international trade negotiations, potentially acting as a barrier or facilitating trade partnerships based on shared sustainability goals.

# RADIOCARBON DATING

**Context: Radiocarbon dating brought the first verifiable way to keep time to many fields of science, significantly transforming them**

## Introduction

- Time is a fundamental aspect in understanding the natural universe, social systems, and technological advancements.
- From thermodynamics to GPS, our comprehension of the world hinges on the ability to **measure and interpret the passage of time.**
- **Radiocarbon dating**, a groundbreaking technique, has played a pivotal role in transforming various scientific fields, providing a verifiable method to **determine the age of organic materials**.

### What is Radiocarbon Dating?

- **Dating Methodology:** Radiocarbon dating involves determining the age of an object by analyzing the concentration of the carbon-14 isotope present in it.
- **Carbon-14 Creation:** Cosmic rays in the Earth's atmosphere create carbon-14 by interacting with nitrogen-14. This newly formed carbon-14 enters the carbon cycle through plants and animals.
- **Historical Origins:** In the early 1940s, chemists Martin Kamen and Sam Ruben synthesized carbon-14 in the lab, revealing its unexpectedly long half-life of around 5,000 years. Inspired by these findings, Willard Libby proposed using carbon-14 for dating organic materials in 1946.
- **Initial Assumptions:** Libby's concept assumed constant carbon-14 concentrations in the atmosphere over millennia and the effective diffusion of carbon-14 into Earth's ecosystems. Later studies validated these assumptions.

## How Does Radiocarbon Dating Work?

- **Dynamic Equilibrium:** Living organisms constantly exchange carbon with their surroundings, maintaining a dynamic equilibrium of carbon-14. Upon death, this equilibrium is disrupted, and carbon-14 begins to decay.
- **Decay Rate Prediction:** The decay rate of carbon-14 is predictable, allowing scientists to estimate the age of an object by measuring the remaining carbon-14 concentration.
- **Experimental Validation:** Libby and James Arnold validated radiocarbon dating by accurately dating known-age objects such as redwood trees and an Egyptian pharaoh's funerary boat in the late 1940s.

## Tools of Radiocarbon Dating

- **Geiger Counter:** Libby utilized Geiger counters to detect radioactive decay. The anti-coincidence counter enhanced precision by filtering background radiation.
- **Modern Techniques:** Contemporary radiocarbon dating employs sophisticated methods such as accelerator mass spectrometry (AMS), offering high sensitivity and the ability to date tiny organic samples.

## Modern Radiocarbon Dating Setup

- **Accelerator Mass Spectrometry (AMS):** AMS enhances mass spectrometry by utilizing a particle accelerator, enabling the isolation and precise measurement of carbon-14 in small samples.
- **Versatility of AMS:** AMS has expanded applications beyond radiocarbon dating, allowing the dating of rocks based on isotopic ratios, contributing to geology.

## Impact on Science

- **Radiocarbon Revolution:** Recognized as the first objective dating method, radiocarbon dating revolutionized archaeology and geology by providing numerical dates to organic remains.
- **Historical Insights:** Radiocarbon dating facilitated the exploration of human migration, civilizational rise and fall, linguistic and religious evolution, human-animal interactions, and climate changes.
- **Political Significance in India:** The technique holds political significance in India, where researchers use radiocarbon dating to date objects from temples and mosques.
- **Ongoing Refinement:** Continuous refinement of radiocarbon dating techniques addresses potential flaws, ensuring accuracy. Recent studies have highlighted deviations in the radiocarbon cycle during specific historical periods.
- **Time Resolution Improvement:** Innovations in atmospheric science have allowed researchers to enhance the time resolution of radiocarbon dating, providing a more detailed temporal perspective.

## Way Forward:

- Radiocarbon dating stands as a beacon of scientific progress, unraveling the mysteries of time and enriching our understanding of the past.

- From its humble beginnings with Geiger counters to the sophisticated AMS technology of today, this technique continues to shape our exploration of history and archaeology, offering a window into the intricate tapestry of human and natural evolution.

## PARLIAMENT BREACH ACCUSED UNDERWENT PSYCHOANALYSIS

**Context: The prominence of 'classical psychoanalysis' has declined over time, while the topic has evolved to become less authoritarian and more practical.**

### What is Psychoanalysis?

- Psychoanalysis, often misconstrued and sometimes associated with mental health alone, is more than just a therapeutic method; it's a comprehensive worldview.
- Originating in Vienna, Sigmund Freud, a pioneering psychiatrist, coined the term and developed psychoanalysis as a revolutionary approach to treating individuals with symptoms resistant to conventional medical interventions.

### Evolution of Psychoanalysis

- Classical psychoanalysis, initially authoritarian, has transformed over time into a more practical and less rigid discipline.
- This evolution is indebted to advancements in neurology, psychiatry, psychology, philosophy, and the natural and social sciences.

### The Unconscious: Core Concept in Psychoanalytic Theory

- Central to psychoanalysis is the concept of the unconscious.
- Freud proposed that memories, affects, and instinctual impulses could be cut off from consciousness due to their threatening nature.
- The unconscious, influenced by cultural conditioning, conceals traumatic memories and instinctual wishes that are deemed socially unacceptable.

### Components of the Psyche: Id, Ego, and Superego

- Freud further developed the idea of the psyche's structure, distinguishing between the id, ego, and superego.
- The **id,** driven by instincts, seeks instant gratification, while the **ego**, a rational counterpart, weighs situations and delays gratification.
- The **superego**, shaped by social values, can be overly demanding, leading to self-punitive behavior.

### Contemporary Views on the Mind

- Contrary to Freud's tripartite model, contemporary psychoanalysts view the mind as composed of multiple self-states that emerge in various contexts.

### Defenses, and Resistance

- **Defenses,** intrapsychic processes, help individuals avoid emotional pain.
- **Resistance,** identified by Freud, refers to clients' reluctance to engage in therapy and is addressed through techniques like free association.

### Transference and Countertransference

- Freud introduced the concepts of transference and countertransference.
  - **Transference** involves projecting past templates onto the therapist, providing an opportunity for clients to gain insights into the effects of past experiences on current behavior.
  - **Countertransference** acknowledges that therapists may have unresolved conflicts and emphasizes the need for therapists to work through these issues.

### Psychoanalysis in Practice

- Psychoanalysis aids in **making the unconscious conscious**, exposing individuals to their hidden wishes and self-deceptive behaviors.

- Freud's **interpretation of dreams**, considered wish fulfillment, was a crucial aspect of psychoanalysis, although contemporary psychiatrists may differ in this regard.

## Therapeutic Mechanism and Change

- The **therapeutic relationship** itself acts as a change mechanism in psychoanalysis.
- By presenting a **new relational experience** that challenges **maladaptive models**, therapists aim to bring about fundamental changes in personality functioning.

## Way forward:

- Psychoanalysis, with its roots in the innovative work of Freud, continues to evolve, offering profound insights into the human psyche.
- From its origins as a treatment modality for the unexplained to its contemporary applications, psychoanalysis remains a dynamic and influential force in understanding and navigating the complexities of the mind.

# PROTECTING THE INDIVIDUAL FROM THE AI

**Context: Artificial Intelligence is wonderful, but in our everyday practice, it is just creepy. How do we stop this technology from taking control of our lives?**

## The Enigma of AI in Digital Cultures

- In the fast-evolving landscape of **digital cultures and AI systems,** individuals find themselves grappling with uncertainties and anxieties. As Generative AI technologies like ChatGPT, Midjourney, Bing, and Bard become more prevalent, a surge in questions related to personal security, privacy, and the broader implications of artificial intelligence has emerged.

## The Pervasive Anxiety: Understanding the Concerns

### *Vague Perceptions of AI*

- Many individuals, unfamiliar with the intricacies of digital cultures and AI systems, often label researchers in the field as simply "**doing something with computers and AI**." This lack of clarity results in a barrage of anxious questions, reflecting concerns about personal security, privacy, and the implications of AI.

### *Rising Questions in the AI Era*

- The proliferation of Generative AI technologies has amplified concerns, leading to questions such as "Is my phone hacked?" and "How do I trust messages from institutions?" These questions underscore the growing unease surrounding the ubiquitous presence of AI in everyday life.

## An Unprecedented Wave: AI's Influence on Personal and Social Realms

### *Beyond Personal Queries*

- Questions extend beyond individual concerns to encompass broader societal issues, including worries about job security in the face of algorithmic restructuring and the potential for radicalization through digital channels.

### *The Uncharted Territory of AI in Relationships*

- AI's omnipresence raises questions about the authenticity of online interactions, dating, and even the potential for manipulated content affecting personal reputations. The intricate web of AI's impact on human connections becomes increasingly evident.

## The Tech Industry's Call for Caution: A Pause in Generative AI Development

### *A Plea for Reflection*

- In response to the breakneck speed of AI development, influential figures within the tech industry have called for a pause in the deployment of Generative AI systems. The lack of regulation, accountability, and predictable outcomes has prompted a plea for reflection on the fundamental values and civil liberties at stake.

### *The Unregulated Experiment*

- The unchecked proliferation of AI systems is characterized as the most unregulated experiment in social, political, and economic engineering. This

unchecked expansion raises concerns about the potential consequences and the limited agency individual users have in this rapidly changing landscape.

## Reclaiming Human Agency: The Call for Human-Centered AI

### *The Creepiness of AI in Daily Life*

- Despite the remarkable advancements AI has brought, its pervasive and invisible presence in everyday life can be disconcerting. It seems to know individuals intimately, exploiting weaknesses and influencing actions, leading to a loss of control over personal information and decision-making.

### *The Urgency of Human-Centered AI*

- Amidst the complexity of AI systems, a plea is made for a **human-centered approach**. The emphasis is on aligning AI with fundamental human values, ensuring transparency, and creating frameworks that prioritize affinity and commonality over divisive algorithms.

## Putting the 'I' Back into AI: A Human-Centered Approach

### *Know the I - Defining Humanity Amidst AI Advances*

- As AI becomes more sophisticated, individuals need a strong sense of what makes us human. The measure of AI should align with human values, preventing AI from defining the essence of humanity through predictive and data-driven indices.

### *Know the You - Resisting Algorithmic 'Othering'*

- Algorithmic systems often perpetuate biases, producing harmful 'othering' effects. Transparent frameworks and a commitment to affinity and commonality are essential to resist the divisive nature of AI and ensure fair treatment for all individuals.

### *Know the Us - Fostering Collective Identity in AI Futures*

- AI systems tend to **create virtual communities based on indicators** that may contribute to isolation and separation. The challenge is to reimagine collective identity, promoting a sense of 'us' that transcends divisive algorithms and fosters unity in AI futures.

## Way Forward: Embracing the Human Element in the AI Age

- As AI continues to shape our daily lives at an unprecedented pace, the need for a human-centered approach becomes paramount.
- By reclaiming agency over technology and understanding the profound impact of AI on individual and collective identity, we can navigate the uncharted territories of digital cultures with a sense of purpose and resilience.
- The challenge is not merely to control AI but to safeguard the essence of what it means to be human in an AI-dominated world.

# ISRO TO LAUNCH XPOSAT AND 10 OTHER PAYLOADS

**Context: The Indian Space Research Organisation, following a landmark 2023, will ring in the new year with the launch of the PSLV-C58 X-ray Polarimeter Satellite (XPoSat) mission.**

## Background:

- The Indian Space Research Organisation (ISRO) is set to embark on a groundbreaking mission with the launch of PSLV-C58, scheduled to lift off from the Satish Dhawan Space Centre in Sriharikota. The focal point of this mission is the deployment of the **XPoSat satellite**, marking a significant milestone as ISRO's **first dedicated scientific satellite** for space-based polarization measurements of X-ray emissions from celestial sources.

### *The Science Behind XPoSat*

- XPoSat carries two crucial payloads, namely **POLIX (Polarimeter Instrument in X-rays)** and **XSPECT (X-ray Spectroscopy and Timing)**.
- Developed by the **Raman Research Institute**, **POLIX is designed to measure the polarization of X-rays** from various celestial bodies.
- On the other hand, **XSPECT, developed by the Space Astronomy Group of URSC**, Bengaluru, focuses **on X-ray spectroscopy and timing measurements**.
- These instruments are poised to unravel the **mysteries of cosmic X-ray emissions**, providing valuable insights into the nature of celestial phenomena.

### *Mission Objectives and Orbit Adjustment*

- According to ISRO, the **PSLV-C58 mission aims to launch XPoSat** into an eastward low inclination orbit.
- Following the injection of XPoSat, the PS4 stage will undergo two restarts to adjust the orbit, ultimately achieving a 350 km circular orbit.

## Examples of Payloads:

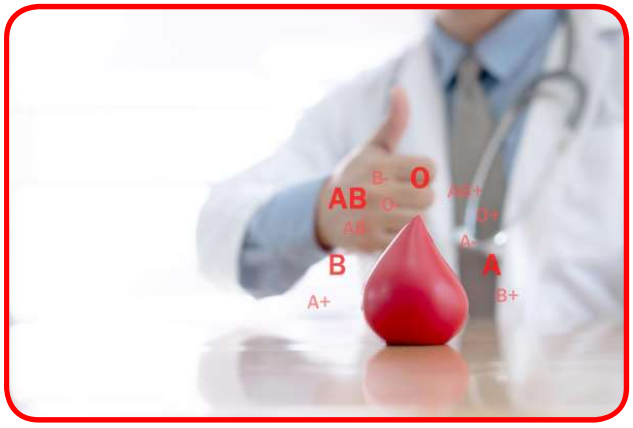
- **Radiation Shielding Experimental Module (RSEM) by TakeMe2Space:**
- **Women Engineered Satellite (WESAT) by LBS Institute of Technology for Women:**
- **BeliefSa-t0 Amateur Radio Satellite by K.J. Somaiya Institute of Technology:**
- **Green Impulse TrAnsmitter (GITA) by Inspecity Space Labs Private Limited:**
- **Launching Expeditions for Aspiring Technologies -Technology Demonstrator (LEAP-TD) by Dhruva Space Private Limited:**
- **RUDRA 0.3 HPGP by Bellatrix Aerospace Private Limited:**
- **ARKA-200 by Bellatrix Aerospace Private Limited:**
- **Dust Experiment (DEX) by PRL:**
- **ISRO Fuel Cell Power System (FCPS) by VSSC, ISRO:**
- **Si-based High Energy Cell by VSSC, ISRO:**

# THE BLOOD MANAGEMENT SYSTEM NEEDS A FRESH INFUSION

**Context:** **Prioritising access to blood and its products remains fundamental to building a resilient global health architecture**

## Building a Resilient Global Health Architecture:

- The COVID-19 pandemic has underscored the **existing inequities in global public health**, prompting policymakers worldwide to advocate for an enhanced global health architecture.
- While strategies such as **increased health financing and digital health solutions** are crucial, this article emphasizes the fundamental importance of prioritizing access to blood and its products in strengthening global health systems.




## The Issue of Blood Shortage

- The **World Health Organization (WHO)** recently highlighted global disparities in blood collection, revealing concerning patterns.
- **African nations**, low-income, and lower-middle-income countries **receive disproportionately low percentages of global blood donations** compared to their populations.
- India, despite improvements, still faces a **chronic shortage,** impacting **critical health services**.
- In 2019-20, the **country fell short of over six lakh blood units**, endangering lives and affecting surgeries and transplants.

### *Advantages of a Hub and Spoke Model*

- To **address blood shortages**, robust **public-private partnerships (PPP)** are essential, with innovative models like the hub and spoke model showing promise.
- In this approach, **high-volume blood banks** serve as hubs for smaller centers, optimizing blood distribution and reducing wastage due to short shelf life.
- This model, especially relevant for **resource-constrained settings**, enhances accessibility and availability of blood products.

- **Data from Parliament** indicates a surplus of **30 lakh blood units discarded over three years** due to expiration and infections which can be addressed by hub and spoke model.

### *Dispelling Myths Around Blood Donation*

- Myt**hs and misinformation hinder voluntary blood donation**, contributing to the perpetuation of inequities in the blood management system.
- Targeted awareness initiatives, combining government efforts with private sector collaboration, can dispel these myths.
- Dedicated campaigns leveraging social media and innovative tools such as multi-lingual comics can engage diverse audiences, fostering a culture of informed and voluntary blood donation.

## Way Forward: Strengthening the Blood Management Ecosystem

- As we **transition from the COVID-19 pandemic**, prioritizing blood access is vital for a resilient global health architecture.
- **Political leaders and policymakers** must continue strengthening the **blood management ecosystem,** considering it a cornerstone of modern medicine.
- **Proactive industry engagement** and **citizen participation** are crucial components of this concerted effort.
- By **addressing blood shortages** and dispelling myths, the global community can build a more equitable and sustainable future for healthcare.

# ANOTHER EYE IN SKY, ON GROUND: INDIA IS NOW PART OF WORLD'S LARGEST RADIO TELESCOPE PROJECT

**Context:** **India, through the Pune-based National Centre for Radio Astrophysics and some other institutions, has been involved in the development of Square Kilometre Array Observatory since its inception in the 1990s**

- **A Giant Leap in Astrophysics:** India, through institutions like the National Centre for Radio Astrophysics (NCRA), has joined the international mega-science project, the Square Kilometre Array Observatory (SKAO). The SKAO, the world's largest radio telescope, marks a significant milestone in India's participation in cutting-edge astrophysics.

## Key Highlights-

### SKAO Overview

- **Array of Antennas:** The SKAO is not a single telescope but an array of thousands of antennas.
- **Global Locations:** Installed in remote radio-quiet locations in South Africa and Australia, it operates as one large unit to observe and study celestial phenomena.

### India's Involvement in SKAO:

- **Historical Involvement:** India has been involved in the development of SKA since the 1990s.
- **Intergovernmental Organization:** SKAO was established as an intergovernmental organization in 2021, with India actively participating in the negotiations.

### Government Approval and Financial Sanction:

- **First Step Towards Ratification:** India's government approval to join SKAO, with a financial sanction of Rs 1,250 crore, is the initial step towards formal ratification.
- **Department of Atomic Energy's Announcement:** The approval was announced by the Department of Atomic Energy in its 2023 year-ending note.

### Scientific Significance of SKAO

- **Gravitational Wave Research:** Similar to LIGO, SKAO will search for gravitational waves, but its scope extends to studying a range of celestial phenomena, allowing a deeper exploration of the universe.
- **Unprecedented Depth:** SKAO can peer more than 3,000 trillion km into the universe, enabling detailed studies of galaxies and stars.

### India's Contribution to SKAO

- **Telescope Manager Element:** India's main contribution lies in the development and operation of the Telescope Manager element, the crucial software that drives SKAO.

- **NCRA's Expertise:** NCRA, known for operating India's largest radio telescope network (GMRT), led the international team to develop the software.

## Success of GMRT

- **IEEE Milestone Recognition:** GMRT, operated by NCRA, earned recognition as only the third facility in India to receive the Institute of Electrical and Electronics Engineers (IEEE) Milestone in 2021.
- **Scientific Achievements:** GMRT's operational success has led to significant scientific results in studying pulsars, supernovae, quasars, and galaxies.
- **SKA-India Consortium:** The SKA-India consortium involves engineers and scientists from over 20 national-level research institutions, including IIT-Kharagpur, IISER, TIFR, and others.
- **Global Collaboration:** Countries such as the UK, Australia, South Africa, Canada, China, France, Italy, and Germany are part of the global effort to build SKAO, showcasing the collaboration in cutting-edge astrophysics.

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# *Section B* [SPECIALS]

## Topic

- Hope of stability in the Hills: The peace pact with ULFA

# HOPE OF STABILITY IN THE HILLS: THE PEACE PACT WITH ULFA

**Context: The pro-talks faction of the United Liberation Front of Asom (ULFA) signed a tripartite peace deal with the Centre and the Assam government. It has clauses for accelerating the State's development and safeguarding the land and political rights of indigenous communities.**

## Historical legacy

### Assam

- **Geographical location:** Assam is the **eastern most sentinel of India** endowed with beautiful lush **covers of greenery, a chain of hills** and rivers mainly the **Brahmaputra and the Barak.** It has been the **living place of various races, tribes and ethnic groups since time immemorial**. The dynamics of synthesis and assimilation of the races make Assam glorified and rich.
  - Assam **covers an area of 78,438 km2 (30,285 sq miles).** The state is **bordered by Bhutan and the state of Arunachal Pradesh to the north;** Nagaland, Arunachal Pradesh and Manipur to the east; Meghalaya, **Tripura, Mizoram, and Bangladesh to the south;** and West Bengal to the west.
  - A **significant geographical aspect** of Assam is that it **contains three of six physiographic divisions of India – The Northern Himalayas (Eastern Hills), The Northern Plains (Brahmaputra plain), and Deccan Plateau (Karbi Anglong).**
- **Origin of name Assam:** In the **ancient Sanskrit literature both the names 'Pragjyotisha' and 'Kamrupa'** were used as designation for ancient Assam. Its **antiquity can be established** from the fact that it has **been mentioned in the two great epics- The Mahabharata and the Ramayana and also in the Puranas.** The name **'Aham' or 'Asom' was** probably given by the Ahoms who came to Assam **in 1228 A.D.**
- **The rule of Ahoms:** The Ahom **dynasty was established by Sukaphaa,** a Shan prince of Mong Mao who came to Assam after crossing the **Patkai Mountains**. It is between **13th and 19th century that several tribal communities also came** into the historical forefront of Assam.
- **The colonial era and Post-Independence:** The rule of this **dynasty ended with the Burmese invasion of Assam and the subsequent annexation by the British East India Company** following the **Treaty of Yandaboo in 1826.** The British emperor took charge of the state and thus begun the colonial era of Assam.
  - **The British annexed Cachar in 1832** and Jaintia Hills in 1835. **In 1874, Assam became a separate province with Shillong as its capital.** Sylhet was merged with East Bengal on partition of India. With the partition and i**ndependence of India in 1947, the district of Sylhet (excluding the Karimganj subdivision) was ceded to Pakistan** (the eastern portion of which later became Bangladesh).
  - **Assam became a constituent state of India in 1950.** It saw further reduction of its area when Dewangiri in North Kamrupa was ceded to Bhutan in 1951. **The capital of Assam was formerly Shillong (now the capital of Meghalaya), and later shifted to Dispur, a suburb of Guwahati, in 1972.** The States of Meghalaya, Nagaland, Arunachal Pradesh and Mizoram got their own separate states.

There are 15 recognised tribes in the autonomous districts of Karbi Anglong and North Cachar Hills and 14 recognised tribes in the rest of the state.

Of these, the major tribes are Bodo (35% of the state's tribal population), Mishing (17.52%), Karbi (11.1%), Rabha (7.6%), Sonowal Kachari (6.5%), Lalung (5.2%), Garo (4.2%), and Dimasa (3.2%).

## Background of the ULFPA and Assam Movement

### The roots of Assam's Movement and Assam Accord

- **The Assam Movement (1979-1985)** was a popular movement against illegal immigrants in Assam. The movement, led **by All Assam Students Union (AASU) and the All Assam Gana Sangram Parishad (AAGSP), developed a program of protests and demonstration to compel the Indian government to identify and expel illegal,** (mostly Bangladeshis**), immigrants and protect and provide** constitutional, legislative and administrative **safeguards to the indigenous Assamese people.**
  - The agitation programs were largely non-violent, but the **Nellie massacre was a case of extreme violence.** The agitation **program ended in August 1985 following the Assam Accord, which was signed by leaders of AASU-AAGSP and the Government of India.**

- The Assam Accord (1985) was a **Memorandum of Settlement (MoS)** signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on 15 August 1985.
- **A six-year agitation demanding identification and deportation of illegal immigrants was launched by the All Assam Students' Union (AASU) in 1979**. It culminated with the signing of the Assam Accord.

## The formation of ULFA-United Liberation Front of Asom

- The **ULFA is a by-product of the anti-foreigners Assam Agitation that began in 1979** and **ended with the signing of the Assam Accord in August 1985.** The fear that the Assamese and other indigenous communities would be pushed out of **their own backyard by "illegal immigrants" (people from Bangladesh) one day had triggered the agitation**.
- The founders of ULFA wanted to establish a sovereign Assamese nation through an armed struggle against the Indian state. For over 44 years, **this 'struggle' has been chequered with kidnappings and extortion, executions and** bomb blasts, leading to tragic loss of life in Assam and beyond.
- While **social organisations and students' bodies chose the path of agitation, a group of radicals, including Arabinda Rajkhowa, Anup Chetia**, and Paresh Baruah formed the ULFA on April 7, 1979, to launch an armed struggle with the objective of establishing a sovereign Assam.
- The group took a decade to **recruit and train its members in Myanmar, China, and Pakistan** before striking with a series of abductions and executions.
- The government responded in 1990 with an offensive **codenamed Operation Bajrang** and banned the ULFA. Assam was declared a disturbed area with the imposition of the Armed **Forces (Special Powers) Act.**

## Assam Accord 1985

- The Assam Accord (1985) was a Memorandum of Settlement (MoS) signed between representatives of the Government of India and the leaders of the Assam Movement in New Delhi on 15 August 1985.
- The accord **brought an end to the Assam Agitation** and paved the way for the leaders of the agitation to form a political party and form a government in the state of Assam soon after.
- **Key demands were** – All those **foreigners who had entered Assam between 1951 and 1961 were to be given full citizenship, including the right to vote.**
- Those who had done so after **1971 were to be deported**; the entrants between 1961 and 1971 were to be denied voting rights for ten years but would enjoy all other rights of citizenship.
- A **package for the economic development** of Assam, **including a second oil refinery, a paper mill and an institute of technology, was also worked out.**
- The central government also promised to provide '**legislative and administrative safeguards** to protect the cultural, social, and linguistic identity and heritage' of the Assamese people.
- Though the **accord brought an end to the agitation, some of the key clauses are yet to be implemente**d, which has kept some of the issues festering.

## Start of the peace process

- Counter-insurgency operations led to the arrest of 1,221 ULFA members in the early 1990s. In 1992, a group of ULFA members decided to **surrender and engage in dialogue with the government. Collectively, they came to be known as SULFA or Surrendered** ULFA who were later allegedly used by the State forces to help identify and execute hardliners and members of their families in what came to be known as "secret killings".
- With support from terror groups such as **Harkat-ul-Jihad-e-Islami and Pakistan's Inter-Services Intelligence, the ULFA hardliners set up camps in Bangladesh and** Bhutan. A military offensive by Bhutan in 2003 and the Sheikh Hasina-led Awami League's return to power in Bangladesh in 2009 saw most of the ULFA members being flushed out from these countries.
- **In 2005, the ULFA raised hopes** of peace when it for**med an 11-member People's Consultative Group** only to backtrack and unleash a **fresh phase of terror. After falling in the net of the security forces in India in 2009, the leaders of the Rajkhowa-l**ed faction signed a ceasefire agreement with the Centre in September 2011.
- In April 2013, the anti-talks group was renamed **ULFA (Independent). The pro-talks group signed the peace accord 12 years after the agreement to suspend** subversive operations.

## The provisions of Peace Accord

- **According to the memorandum of settlement, the ULFA has agreed to renounce violence**, disarm, disband the armed organisation, **vacate their occupied camps**, and participate in peaceful democratic process established by the law.
- Marking a **shift toward non-violence, it aims to ensure the integrity of the country contrary to what the ULFA had initially demanded.** The Ministry of Home Affairs will make a time-bound programme to fulfil the demands of the outfit and a committee would be formed for its monitoring.
- The pact underlines a comprehensive package entailing an investment of ₹1.5 lakh crore for the all-round development of Assam.
- The most significant part of the **accord is the commitment to address the political demands of the ULFA. These include maintaining the territorial integrity of Assam through amicable settlement of boundary disputes with neighbouring States** in the Northeast and continuation of the "guidelines and methodology" adopted for the delimitation exercise conducted in 2023 in **future delimitation processes**.
- The pact envisages ensuring maximum representation for indigenous communities in the 126-member Assam Assembly by **keeping non-original inhabitants, primarily migrant** Muslims, out. The 2023 delimitation is said to have made it impossible for non-indigenous communities to contest 106 of these seats.
- Apart from **the legislative safeguard, the pact seeks exemption for Assam from Section 3 of the Citizenship Act of 1955 dealing with people who have renounced Indian citizenship or whose citizenship has been terminated**, to conditionally stop people of one constituency from being registered in another, and prepare an error-free National Register of Citizens, whose updated complete draft had put 19.06 lakh people out of 3.3 crore applicants on the rejection list.

## What are the challenges ahead?

- After the signing of the accord —Conflict specialists say the pact, provided the government shows its intent to implement the clauses, was a step in the right direction but lasting peace would be elusive unless **Baruah and some 200 fighters of his ULFA (I) group talk truce.**
- **The ULFA (I) operates from hideouts in the Sagaing Division of Myanmar. Baruah**, believed to be based on the Myanmar-China border, has repeatedly said talks with the "Indian occupational forces" would be meaningless without discussing the sovereignty of Assam.
- The government cannot discuss **sovereignty because "no one in Assam wants to secede from India" but efforts to convince Baruah to come for negotiations would continue**

## Positives of the newer accord

- The Assam **government said that the accord with the 1979-born ULFA has paved the way to ensure legislative and land rights for the Assamese people. The pact has** two major clauses – a commitment to following the principles applied for the 2023 delimitation exercise for future delimitation exercises in **Assam and checking demographic changes by preventing people of one constituency from being registered** as voters in another.
- The delimitation ensured the **representation of the indigenous communities in at least 106 seats — a minimum of 96 in the Assamese-dominated Brahmaputra Valley and eight in the Bengali-majority Barak Valley — of Assam's 126 Assembly seats, the ULFA accord would make only the communities inhabiting Assam for 100, 200, or 300 years eligible for representation for at least 40 more years.**
- Referring to the Assam Accord of 1985, which prescribes March 24, 1971, as the cut-off date for determining citizens, it was logical to move away from such dates and consider people living in Assam for at least a century as Assamese.
- Assam's political history has been **marked by conflicts with Bengalis over culture and language. Barring Barak Valley, Bengali Hindus first came to Assam with** the British in the mid-1800s primarily for clerical jobs and petty trades while the first set of Bengali Muslims settled for farming in the 1890s. **The Bengali Muslims are considered outsider because of the perception that a majority of them crossed over during the Bangladesh** Liberation War in 1971 and thereafter for greener pastures.
- other safeguards sought in the **ULFA accord are the demarcation of protected belts and blocks for general people on the lines of the British-era tribal** blocks and belts where land rights are reserved for certain indigenous communities. The clause for reserving land within a

5 km radius of temples, ***namghars*** **(prayer halls), and** ***satras*** **(monasteries) for the Assamese.**

- While the accord is considered a positive step, lasting peace hinges on engaging Paresh Baruah and his ULFA (I) group, currently operating from Myanmar. Baruah's insistence on discussing Assam's sovereignty remains a major hurdle.
- The state government is showing optimism, emphasizing ongoing efforts to bring Baruah to the negotiation table. The government's commitment to implementing the accord will play a crucial role in achieving sustained peace in Assam.

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# WARLI TRIBE'S BATTLE FOR LAND: CLASH WITH SHIVAJI MUSEUM PROJECT IN MUMBAI

**Context:** **The Warli tribe in Mumbai is facing a threat to their ancestral land due to the construction of the Chhatrapati Shivaji Maharaj War Art Museum.**

## Background:

- The project, initiated by the **Maharashtra Department of Tourism**, has sparked concerns among the Warlis, who fear the loss of their **homes and forests in Gorai**.
- The clash highlights the ongoing struggle between **development projects and indigenous communities**.
- In June 2023, the Maharashtra Department of Tourism announced the construction of the **Shivaji museum on 136 acres of land in Gorai with a budget of Rs. 50 crore**.
- The Warli tribe, with a population of about **1,300 in Gorai, resides in six tribal hamlets, including Babar Pada and Chotadongari Pada**.
- The project has led to the **demolition of houses and raised concerns** about the displacement of tribal communities.

## Need for Project and backlash by the tribes:

- The Chhatrapati Shivaji Maharaj War Art Museum aims to celebrate the **historical and cultural significance** of the Maratha warrior king, Shivaji Maharaj.
- However, the choice of land for the museum has triggered opposition from the **Warli community**, who argue that the land is crucial for their livelihoods and cultural practices.
- The Warlis argue that the sanctioned land for the museum is the same land they have **depended on for generations.**
- They express concerns about losing not only their homes but also **the forested area they have populated with fruit trees**.
- The **conflict has intensified** as the government proceeds with the construction, leading to protests and discussions about the impact on the tribal hamlets.

## Legal Battles and Community Mobilization:

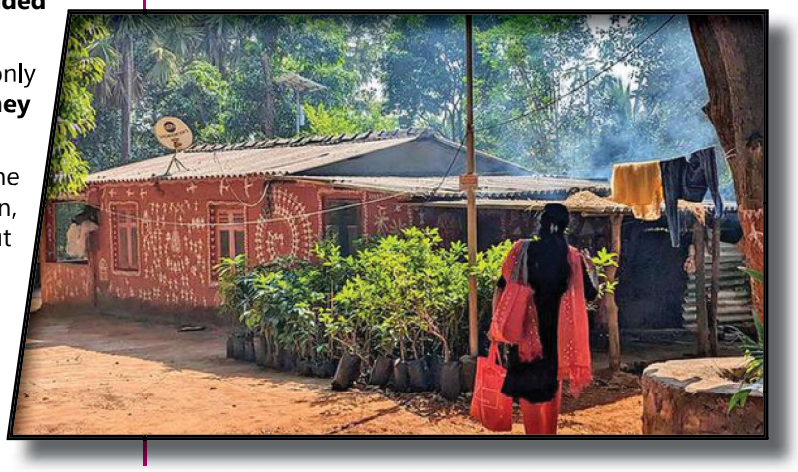
- In 2011, the **Bombay High Court rejected the Maharashtra Tourism Development Corporation's (MTDC) tourism proposal to construct hotels and resorts in and around Gorai and Manori** villages.
- The court highlighted the **ecological sensitivity** of these areas.
- Currently, the **Warli tribe, along with fisherfolk**, is in the process of filing an interim application against the Shivaji museum project.
- The tribal community has mobilized, with around 6,000 people gathering to mark the **Tribal Community Festival 2023, emphasizing their traditions and addressing the crisis**.

## Government's Response:

- Collector, Mumbai Suburban, assures that tribal communities **practicing agriculture on sanctioned land will not be displaced**.
- He believes that even if a particular place is affected, the tribes will be **rehabilitated safely**.
- However, the **Warli community remains skeptical**, emphasizing their connection to the land and their determination to resist any illegal occupation.

## About the Warli Community:

- The Warli, an indigenous tribe of western India, reside in mountainous and coastal areas along the **Maharashtra and Gujarat border**.
- Their **animistic beliefs, customs, and traditions** are intertwined with their unique **Warli language**.
- Known for **their Warli paintings**, the community has a rich cultural heritage, and their mural art tradition dates back to 2500 or 3000 BCE.
- The **Warli paintings, characterized by a basic graphic vocabulary**, have become a distinctive representation of their cultural identity.
- The Warli painting is recognized as the **cultural intellectual property of the tribal community**, with efforts made to preserve this traditional knowledge through initiatives like the Warli Art Foundation.



## BEYOND SPICE TO MEDICINE, CULTURE, & MORE

**Context: Turmeric, a multi-faceted commodity, is now on board with the recent establishment of the Turmeric Board by India government.**

### Turmeric: India's Golden Spice in the Modern Age

- Ayurveda and Medicinal Properties: Ayurveda, the ancient Indian medical system, recognizes turmeric for its medicinal properties. Recent global research has heightened interest in its biomedical potential, particularly in the wake of the Covid-19 pandemic. Curcuminoids and turmerin, key compounds in turmeric, exhibit anti-inflammatory, antimicrobial, anti-rheumatic, and anticancer properties.
- **Rise of the Turmeric Board:** To address the growing importance of turmeric, the Indian Government has established **the Turmeric Board, headquartered in Telangana.** This initiative aims to provide leadership, enhance efforts, and foster coordination among various government bodies and the Spices Board for the development and growth of the turmeric sector.
- **Global Dominance:** India dominates the global turmeric market, accounting for **over 62% of the world's turmeric trade in 2022-23**. The Turmeric Board envisions further growth, **targeting a $1 billion in exports by 2030**. More than 380 exporters facilitate the export of 1.534 lakh tonnes of turmeric and turmeric products, valued at $207.45 million, with primary destinations including Bangladesh, UAE, USA, and Malaysia.
- **Quality Assurance Challenges:** As turmeric gains popularity, concerns about **adulteration and contamination rise**. The Turmeric Board must play a pivotal role in ensuring the quality of this precious spice, preventing economic loss, and maintaining the nation's reputation on the global stage.
- **Diversification into Floriculture:** Turmeric's versatility extends to floriculture, with certain species cherished as cut flowers. **The unique genus, Curcuma**, finds applications in religion, medicine, aromatherapy, cosmetics, dye, and floriculture. The Turmeric Board is poised to lead this revolution in diversifying turmeric's applications.
- **Biomedical Marvels:** Recent scientific interest has uncovered the biomedical potential of turmeric, particularly its **key compounds – curcuminoids and turmerin**. These molecules showcase anti-inflammatory, antimicrobial, anti-rheumatic, and anticancer properties, positioning turmeric as a valuable asset in modern medicine.
- **Way Forward:** The establishment of the Turmeric Board marks a significant milestone in recognizing turmeric's potential across various sectors. From its historical roots to its emergence as a biomedical marvel, turmeric is on the cusp of attaining the same stature as other esteemed spices. The Turmeric Board is set to lead India's golden spice into a new era of growth, innovation, and global recognition.

## ARGENTINA REJECTS INVITATION TO JOIN BRICS NATIONS

**Context: Argentine President Javier Milei sent an official letter to BRICS leaders to formalise his decision to reject an invitation to join the grouping.**

### Key Highlights –

- In August, BRICS announced its expansion.
- The bloc planned to add six new members, namely Argentina, Ethiopia, Iran, Saudi Arabia, Egypt, and the United Arab Emirates, effective from January 1, 2024.

### Argentina's Withdrawal:

- Argentina, one of the prospective members, decided to withdraw from BRICS.

### History of BRICS

- The term BRIC was first introduced in the 2001.
- In 2001, the British Economist Jim O'Neill coined the term BRIC to describe the four emerging economies of Brazil, Russia, India, and China.
- The grouping was formalised during the first meeting of BRIC Foreign Ministers' in 2006.
- South Africa was invited to join BRIC in December 2010, after which the group adopted the acronym BRICS.

### BRICS Organization

- BRICS is an acronym for the grouping of the world's leading emerging economies, namely Brazil, Russia, India, China, and South Africa.
- The chairmanship of the forum is rotated annually among the members, in accordance with the acronym B-R-I-C-S.
- It is viewed as an alternative to the Western-led global order.

- The decision came after the election of Javier Gerardo Milei as the president, who expressed differences in foreign policy compared to the previous administration.

# ARVIND PANAGARIYA APPOINTED CHAIRMAN OF 16TH FINANCE COMMISSION

**Context: Arvind Panagariya, the former Chairman of NITI Aayog, has recently been named as the head of the 16th Finance Commission.**

## Background:

- Arvind Panagariya served as the **Chairman of NITI Aayog**, a premier policy institution, contributing to the Indian government's policymaking process.
- His **diverse experience and expertise in economic matters** make him a prominent figure for the role of heading the Finance Commission.
- This significant appointment follows his departure from **the think tank in August 2017 after a notable two-year tenure.**

## Finance Commission in India:

- The Finance Commission is a constitutional body in India that plays a crucial role in fiscal federalism. Here are a few key pointers about the Finance Commission:

### 1. Constitutional Mandate:

- The Finance Commission is constituted under **Article 280** of the Indian Constitution.
- It is formed **every five years** or at such intervals as deemed necessary by the President.

### 2. Objective:

- The primary objective of the Finance Commission is to address the distribution of financial resources between the Centre and the States.

### 3. Functions:

- The Commission recommends the distribution of net proceeds of taxes between the Centre and the States.
- It suggests principles governing the grants-in-aid to be given to the States out of the Consolidated Fund of India.
- The Commission also evaluates the impact of the Centre's debt on the fiscal autonomy of States.

### 4. Composition:

- The Finance Commission comprises a Chairman and four other members.
- Members are appointed by the President, and they bring diverse expertise, including economics, finance, and public administration.

## Panagariya's Vision for India:

- Earlier this year, Arvind Panagariya expressed optimism about **India's economic trajectory**.
- He envisioned **India becoming the world's third-largest economy by 2026**.
- According to his projections, India's GDP could **reach $5 trillion in 2026 and $5.5 trillion in 2027**, indicating a significant growth trajectory.

# "VIKSIT BHARAT SANKALP YATRA" BOOSTS BENEFICIARY NUMBERS

**Context: With a significant decline in the number of PM-Kisan beneficiaries, the government launches a special drive under the Viksit Bharat Sankalp Yatra to add 34 lakh farmers back into the scheme.**

## Background:

- PM-Kisan, **initiated on February 24, 2019,** provides eligible farmer families with Rs 6,000 annually in three equal installments through **Direct Benefit Transfer (DBT).**
- The number of beneficiaries, which peaked at 10.47 crore in April-July 2022, w**itnessed a decline to 8.12 crore by the latest payment round in November 2023.**

## Need for the Special Drive:

- The launch of Viksit Bharat Sankalp Yatra on November 15, **six months ahead of the Lok Sabha elections**, seeks to address the decreasing numbers of PM-Kisan beneficiaries.
- Efforts are made to cover all intended beneficiaries **under various government flagship schemes**.

## Inclusion of 34 Lakh Farmers:

- Under the saturation drive, **34 lakh farmers are added to the PM-Kisan beneficiary list**.
- **Uttar Pradesh leads with 8.50 lakh additions**, followed by Rajasthan (2.39 lakh), Manipur (2.27 lakh), Jharkhand (2.2 lakh), and Maharashtra (1.89 lakh).
- This inclusion ensures eligibility for the **next PM-Kisan installment** before the end of the 2023-24 financial year.

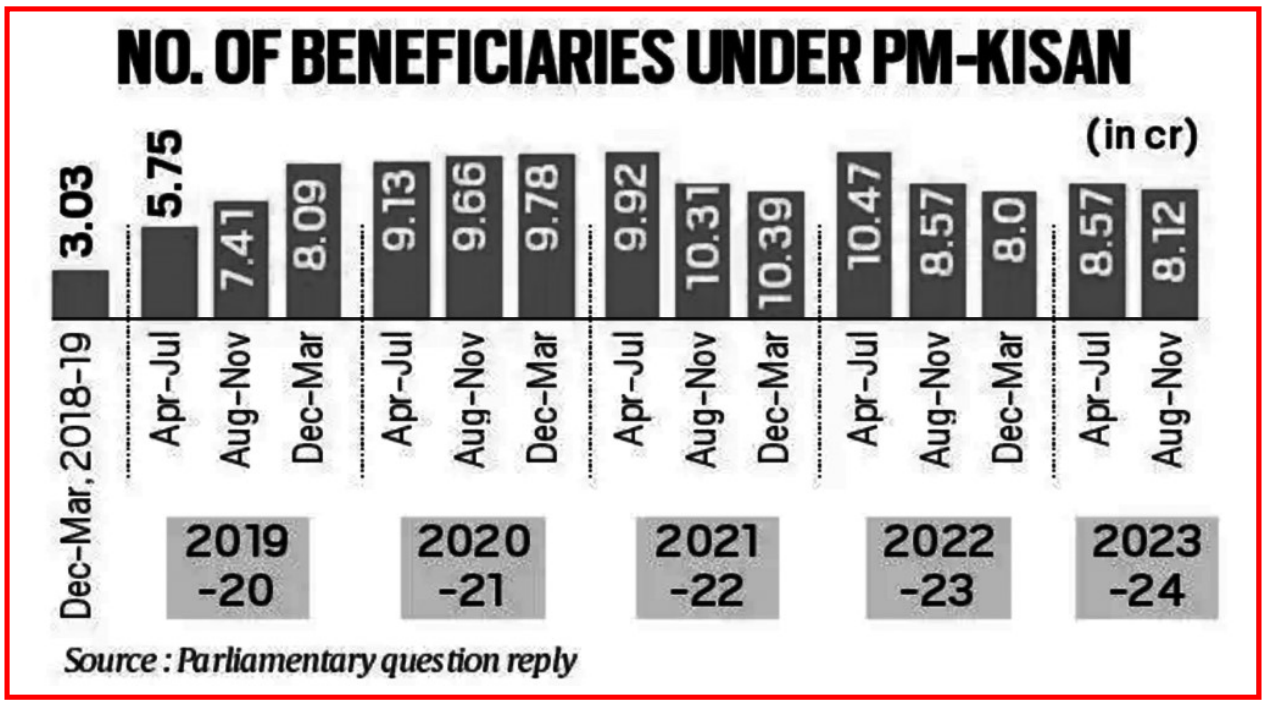
## Expected Impact by January 2024:

- The Union Ministry of Agriculture and Farmers' Welfare anticipates that the total number of farmer beneficiaries **will surpass 8.75 crore by January**

**2024, the conclusion of the Viksit Bharat Sankalp Yatra**.

## Addressing Decline and Disbursement Challenges:

- The decline in **PM-Kisan beneficiaries over the past financial year** is acknowledged, and efforts are made to address the challenges.
- The annual disbursement of funds, which **peaked at** Rs 67,121 crore in 2021-22, dropped to Rs 58,258 crore in 2022-23.
- The current financial year, **till November 22, has seen a** disbursement of Rs 38,660 crore.
- A **decline in funds** was attributed to the introduction of mandatory **land seeding and Aadhaar linking.**




# SCHEME FOR RESIDENTIAL EDUCATION FOR STUDENTS IN HIGH SCHOOLS IN TARGETED AREAS (SHRESHTA)

**Context: Ministry of Social Justice & Empowerment implements Central Sector Scheme namely Scheme for Residential Education for Students in High Schools in Targeted Areas (SHRESHTA).**

## Key Highlights-

- **Objective of SHRESHTA Scheme**
  - **Development Intervention:** SHRESHTA aims to enhance government development interventions in SC-dominant areas, specifically focusing on education and socio-economic upliftment.
  - **Filling Service Gaps:** The scheme addresses service deficiencies by supporting grant-in-aid institutions run by NGOs and residential high schools to provide high-quality education to SC students.
- **Implementation Modes**
  - Mode 1: SHRESHTA Schools (Best CBSE/State Board Schools)
  - **Selection Process:** Meritorious SC students are selected through the National Entrance Test for SHRESHTA (NETS) conducted by the National Testing Agency (NTA).
  - **Admission Criteria:** Students are admitted to the best private residential schools based on merit, ensuring completion of education till the 12th standard.
  - Mode 2: NGO/VO Operated Schools/Hostels (EXISTING COMPONENT)
  - **Grant Provision:** Schools/Hostels run by VOs/ NGOs receive grants for school fee and residential charges for SC students. Grants are based on the type of school and residential arrangement.
- **Financial Provisions**
  - **Total Fee Coverage:** The department covers the total fee for SC students, including school fee and

hostel charges, with admissible fees ranging from Rs. 1,00,000 to Rs. 1,35,000 for classes 9th to 12th.

- **Bridge Course:** A 10% fee for a bridge course is incorporated to enhance students' capabilities to adapt to the school environment.

- **Monitoring Mechanism**
  - **Real-time Data Management:** A Data Management Information System (MIS) is established for real-time collection and dissemination of progress, ensuring better reporting on output outcome indicators.
  - **Surveillance Measures:** Institutions are required to install closed-circuit cameras for live feed availability, and field visits by inspection teams are mandated.

## COVID19 SUBVARIANTS

**Context: Now is the moment to treat SARSCoV2 or COVID19 akin to any common respiratory illness; it primarily pertains to individual health.**

### About Evolving Variants-

- The SARSCoV2 virus, identified in 2019, has undergone multiple variants, including the recent emergence of the **JN.1 subvariant** of Omicron.
- The World Health Organization designates JN.1 as a **Variant of Interest (VoI)**, triggering surveillance efforts, but it does not currently pose severe risks.
- Over **1,000 subvariants** and recombinant sublineages have emerged since 2019, emphasizing the virus's continuous genetic changes.

### Variant Impact

- **Designation Criteria:** VoIs like JN.1 require monitoring but don't automatically indicate severe consequences. Variants of Concern (VoCs) are distinguished by substantial alterations in virus characteristics.
- **Current Scenario:** No VoCs are circulating globally, and the downgrading of Omicron in March 2023 reflects the evolving nature of SARSCoV2.
- **JN.1 Evaluation:** The subvariant poses no evidence of increased severity or immune escape, with wastewater surveillance indicating widespread circulation.

### Vaccination Response and Public Awareness

- **Hybrid Immunity:** Existing vaccines and natural infections offer protection against subvariants, reducing immediate concerns. No scientific basis supports a fourth COVID19 vaccine dose.
- **Interpreting Cases:** The spike in COVID19 cases may result from increased testing rather than a genuine surge. Deaths attributed to COVID19 need careful evaluation, considering other prevalent causes.
- **Public Response:** Citizens should act responsibly, relying on verified information. Government communication must be interactive and easily understandable, emphasizing routine preventive measures.

### COVID19 as Routine Respiratory Illness

- **Government Strategy:** Nuanced and evidencebased responses are crucial. Standard public health measures, surveillance, and clinical management should align with routine respiratory illness protocols.
- **Community Actions:** Individuals need not disrupt routines due to minor case increases. A syndromic approach to respiratory illnesses and adherence to preventive measures remain paramount.
- **Children's Risk:** The lowest risk among age groups makes school closures unnecessary. Treating COVID19 as a routine respiratory illness is essential for public health perspectives.

## INDIA IS TESTING AI FOR IMPROVED WEATHER FORECASTING

**Context: Weather agencies around the world are focusing on AI, which can help in cutting down costs and improving speed**

### Background:

- As **India grapples with the escalating challenges of climate change**, the country is turning to **cutting-edge technology to enhance its weather forecasting capabilities**.

- With a **population of 1.4 billion a**nd being a major **global producer of water-intensive crops**, such as rice, wheat, and sugar, India recognizes the **critical role of accurate weather forecasting**.
- In a significant leap, the **India Meteorological Department (IMD)** is now **integrating Artificial Intelligence (AI)** into its **climate models** to **revolutionize weather predictions.**

## The Imperative for Accurate Weather Forecasting

### 1. Water-Intensive Agriculture

- India stands as the **second-largest producer of water-intensive crops** globally, emphasizing the need for **precise weather forecasts.**
- Crops like **rice, wheat, and sugar are vital to India's economy**, making accurate weather predictions crucial for **agricultural planning and resource allocation**.

### 2. AI's Potential Impact

- KS Hosalikar, head of climate research and services at IMD, expresses optimism, stating that AI-based climate models are expected to enhance the accuracy of weather forecasts.
- The integration of AI and Machine Learning (ML) techniques aims to improve prediction skills for weather, climate, and ocean forecasts across various institutes under the ministry.

## III. Advancements in Weather Forecasting Technology

- **IMD's Mathematical Models**
  - IMD plans to provide **forecasts based on mathematical models** run on powerful supercomputers.
  - The **government underscores the role of AI and ML in refining the prediction capabilities**, signaling a **shift towards more advanced and data-driven forecasting methods.**

## IV. Global Focus on AI in Weather Forecasting

### 1. Cost-Efficiency and Speed

- **Weather agencies worldwide are increasingly turning to AI** due to its **potential to reduce costs and enhance forecasting speed.**
- The **ability to predict weather patterns** is integral to understanding and **addressing the impacts of climate change.**

### 2. Impact of Extreme Weather Events

- According to the **Centre for Science and Environment (CSE)**, extreme weather events linked to global warming have resulted in over 3,000 deaths in India this year alone.
- The urgency to improve weather forecasting capabilities is underscored by the **growing frequency and intensity of these events.**

## Challenges and the Role of Data

### 1. Need for High-Resolution Data

- Experts, including Parthasarathi Mukhopadhyay from the Indian Institute of Tropical Meteorology, emphasize the **importance of high-resolution data for effective AI models.**
- The **success of AI in weather forecasting** hinges on **having precise and timely data** for location-specific magnification of existing model forecasts.

## Innovative AI Tools in Climate Science

### 1. Watsonx.ai: A Joint Initiative by NASA and IBM

- **Watsonx.ai** is an AI tool collaboratively developed by NASA and IBM.
- It not only measures **environmental changes** that have already occurred but also makes predictions about future changes, showcasing the potential for AI in advancing climate science.

## Future Outlook:

- As India pioneers the **integration of AI into its weather forecasting** infrastructure, the journey towards more accurate predictions holds promise.

- The **intersection of technology, climate science, and agriculture** is crucial for sustaining a growing population in the face of climate challenges.
- The global focus on leveraging AI for weather forecasting underscores the **shared commitment to mitigating the impacts of climate change and safeguarding vulnerable communities**.
- The **success of these initiatives** will depend on **continued innovation, collaboration, and a data-driven approach** to confront the evolving dynamics of our planet's climate.

## INDIA'S GSAT-20 SATELLITE SET FOR SPACEX'S FALCON-9 LAUNCH, ELEVATING SPACE CONNECTIVITY

**Context:** **India is gearing up for a remarkable advancement in its space capabilities with the upcoming launch of the GSAT-20 satellite. The NewSpace India Limited (NSIL), the commercial arm of the Indian Space Research Organisation (ISRO), has disclosed crucial details about this mission.**

### Details Unveiled by NSIL:

- NSIL, responsible for **building, launching, owning, and operating satellites** based on user demands, has shared insights into the GSAT-20 satellite mission.
- This initiative follows the successful deployment **of GSAT-24 in June 2022**, a mission funded entirely by NSIL and securing capacity through TataPlay.

### GSAT-20's Objectives:

- Scheduled for the second quarter of 2024, GSAT-20 is designed to significantly **enhance broadband connectivity in India.**
- Additionally, it aims to support **In-Flight and Maritime Connectivity (IFMC) and cellular backhaul services** across the country.

### Key Features of GSAT-20:

- **High-Throughput Satellite (HTS) Capacity**: The satellite boasts an impressive HTS capacity of nearly 48Gbps.
- Comprehensive Coverage: **Featuring 32 beams, GSAT-20 ensures comprehensive coverage** over the entire Indian subcontinent, including the Andaman & Nicobar and Lakshadweep islands.

### Collaboration with SpaceX:

- Weighing 4700 kg, GSAT-20 is being developed by ISRO and will be launched aboard **SpaceX's Falcon-9 rocket.**
- This collaboration emphasizes the **growing global partnerships in the space industry** and underscores the significance of international cooperation in advancing space technology.

### Commercial Demand:

- Indian service providers have already **pre-booked the bulk of the high-capacity bandwidth** offered by GSAT-20.
- This indicates a strong demand for **improved connectivity,** hinting at the potential transformative impact on the region.

### Significance of GSAT-20 Mission:

- The mission holds particular significance as it aims to meet the **challenging service requirements of remote and previously unconnected regions.**
- By **bridging the digital divide**, GSAT-20 contributes to fostering inclusive growth.

## BUXA TIGER RESERVE, TIGER SPOTTED AFTER 4 YEARS

**Context:** **Experts say an increase in its prey base, expansion of the grassland, and controlling human interaction are potential reasons for the tiger's comeback.**

### Tiger's Return Sparks Hope for Buxa National Park:

- The elusive big cat was captured on camera traps, renewing hopes for its permanent residence in the park. This development has raised expectations of

potential relocations of villages from the core area, signaling positive changes in the ecosystem.

## Previous Disappointment and Recent Sighting: A Two-Year Journey

- In December 2019, a brief sighting of a tiger in Buxa National Park left wildlife enthusiasts longing for more. Disappointment ensued as the big cat disappeared from view.

## Buxa Tiger Reserve: Vital Statistics and Geographical Significance

- Covering **760 square kilometers**, Buxa Tiger Reserve and National Park are situated in **North Bengal's Alipurduar district.**
- Its strategic location along the **border with Bhutan** and **connectivity corridors** with neighboring forests make it an essential part of the **larger tiger territory** stretching into Bhutan and connecting with **Manas Tiger Reserve** and **Jaldapara National Park.**

## Wildlife Conservation Initiatives: Creating an Ideal Habitat

- The Field Director of Buxa Tiger Reserve, highlights ongoing efforts to **reduce human interference**, **enhance grasslands**, and **increase the prey base**.
- The reserve, characterized as a "**low density" area**, has **introduced spotted deer**, **expanded grasslands**, and **created watering holes** to foster an **ideal habitat for tigers**.

## Future Plans and Prospects

- The additional chief conservator of forest, North Bengal, shares plans to **relocate villages from the core area.**
- This strategic move aims to **minimize human presence**, creating an environment conducive to the natural behavior of tigers.
- The **tiger augmentation and monitoring project**, initiated in 2018, has been instrumental in these conservation efforts.

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# *Section D* [QUIK BYTES]

- Nritya Kalanidhi Award
- Navy unveils Shivaji-inspired new design for Admirals' epaulettes
- National Maritime Domain Awareness Centre
- Russia, NASA agree to continue joint ISS flights until 2025

**[LOCATION IN NEWS]**

- Bab al Mandeb
- Ishikawa, Japan

**[CONCEPT IN NEWS]**

- Hyperlocalisation

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## Nritya Kalanidhi Award

The award was conferred to Vasanthalakshmi Narasimhachari.

### About the award

- It is presented in the field of dance every year by the Madras Music Academy.
- The award has been given to Vasanthalakshmi Narasimhachari . She excels both in Bharatanatyam and Kuchipudi.
- The award was presented to her by the Singapore Consulate General, who also highlighted the historical relationship which it shares with Tamils.
- Tamil is one of the four official languages and its historical people-to-people links are intertwined with heritage and tradition of the fine arts.

### Madras Music Academy

- A landmark institution in the history of the fine arts which emerged as an offshoot of the All India Congress Session held in Madras in December 1927.
- Founded on the notion that it would set the standard for Carnatic music.
- **It also confers the various awards such as the Sangita Kalanidhi, Nritya Kalanidhi.**

## Navy unveils Shivaji-inspired new design for Admirals' epaulettes

The Navy unveiled the new design of epaulettes that senior officers will display on their uniform as part of efforts to shed the remnants of its colonial legacies in customs and traditions.

### About:

- The new Navy button reflects the new crest, sans the fouled anchor which was a colonial era vestige.
- As per the Navy, the red octagon reflects the eight cardinal directions indicative of an all-round long-term vision.
- It is inspired by the new naval ensign that was unveiled last year and inspired from the Rajmudra of Maratha ruler Chhatrapati Shivaji Maharaj who had built the massive Maratha Navy which has a rich maritime legacy.

## National Maritime Domain Awareness Centre

India is poised to establish a National Maritime Domain Awareness Centre (NMDAC) in response to emerging threats in the Indian Ocean Region (IOR).

### About NMDAC -

- The primary objective of the NMDAC is to meticulously gather, analyze, and provide actionable intelligence to address maritime challenges such as terrorism, piracy, trafficking, and illegal fishing.

- This center is designed to bring together 15 departments and organizations spanning seven ministries under a single roof. The involved ministries include petroleum, defense, fisheries, shipping, among others.
- Bharat Electronics Limited (BEL), a defense public sector undertaking, is entrusted with the responsibility of providing all the requisite hardware and software.

## Russia, NASA agree to continue joint ISS flights until 2025

As per the latest update, Russian and U.S. space agencies have agreed to keep working together to deliver crews to the International Space Station (ISS) until at least 2025.

**About:**

- It aims "to guarantee the presence of at least one representative of Roscosmos on the Russian segment and the presence of at least one representative of NASA on the American segment."

**The International Space Station (ISS):**

- The station was designed between 1984 and 1993. Elements of the station were in construction throughout the US, Canada, Japan, and Europe beginning in the late 1980s.
- The International Space Station Program brings together international flight crews, multiple launch vehicles, globally distributed launch and flight operations, training, engineering, and development facilities, communications networks, and the international scientific research community.
- **ISS partners – the United States, Russia, Europe, Canada and Japan – are for the moment only committed to operate the orbiting laboratory until 2024, though US officials have stated they want to continue until 2030.**

# LOCATION IN NEWS

## Bab al Mandeb

British maritime security agency UKMTO reported explosions near a cargo ship in the strategic Bab el-Mandeb Strait by Yemen's Iran-backed Houthi rebels.

**About Bab al Mandeb-**

- Bab al-Mandeb is a **strategic strait** connecting the **Red Sea to the Gulf of Aden** and ultimately the Indian Ocean.
- Its location at the southern entrance of the Red Sea makes it a critical **maritime chokepoint.**

- It serves as a crucial passage for **international shipping and trade**, facilitating the movement of goods between Europe, Asia, and the Middle East.
- The strait is flanked by **Djibouti and Yemen**, and both locations host naval bases of international significance.
- Countries like the United States, China, and others maintain military bases in the region, emphasizing its strategic importance.

## Ishikawa, Japan

Earthquake of Magnitude of 7.6 hit City Ishikawa on the western coast of Japan.

### About the incident-

- A series of powerful earthquakes hit western Japan.
- Aftershocks continued to shake Ishikawa prefecture and nearby areas.

### About Ishikawa-

- Ishikawa is a prefecture located on the coast of the Sea of Japan, situated in the Chubu region of Honshu, Japan's main island.
- The capital city of Ishikawa is Kanazawa, renowned for its well-preserved Edo-period districts and traditional arts and crafts.
- The prefecture is famous for its traditional crafts like Kutani ware (porcelain), Kaga Yuzen silk dyeing, and Wajima-nuri lacquerware, showcasing the region's artistic and artisanal expertise.

# CONCEPT IN NEWS

## Hyperlocalisation

Panelist in recent StarX summit talked about need of Hyperlocalisation.

### About Hyperlocalisation -

- Hyperlocalisation is a business strategy emphasizing extreme localization.
- Focuses on catering services or products to a very specific, localized audience.
- Utilizes data and technology to tailor offerings based on the immediate needs and preferences of the local community.
- Aims to create a personalized and relevant experience for consumers within a small geographic area.
- Enables businesses to build strong community connections, enhance customer engagement, and stay responsive to local trends and demands.

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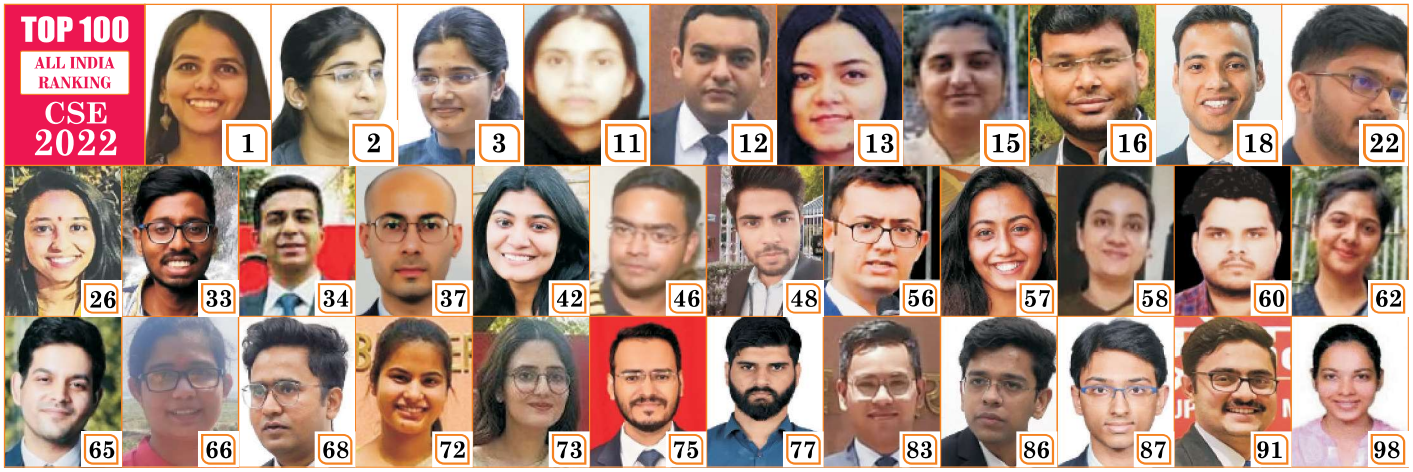

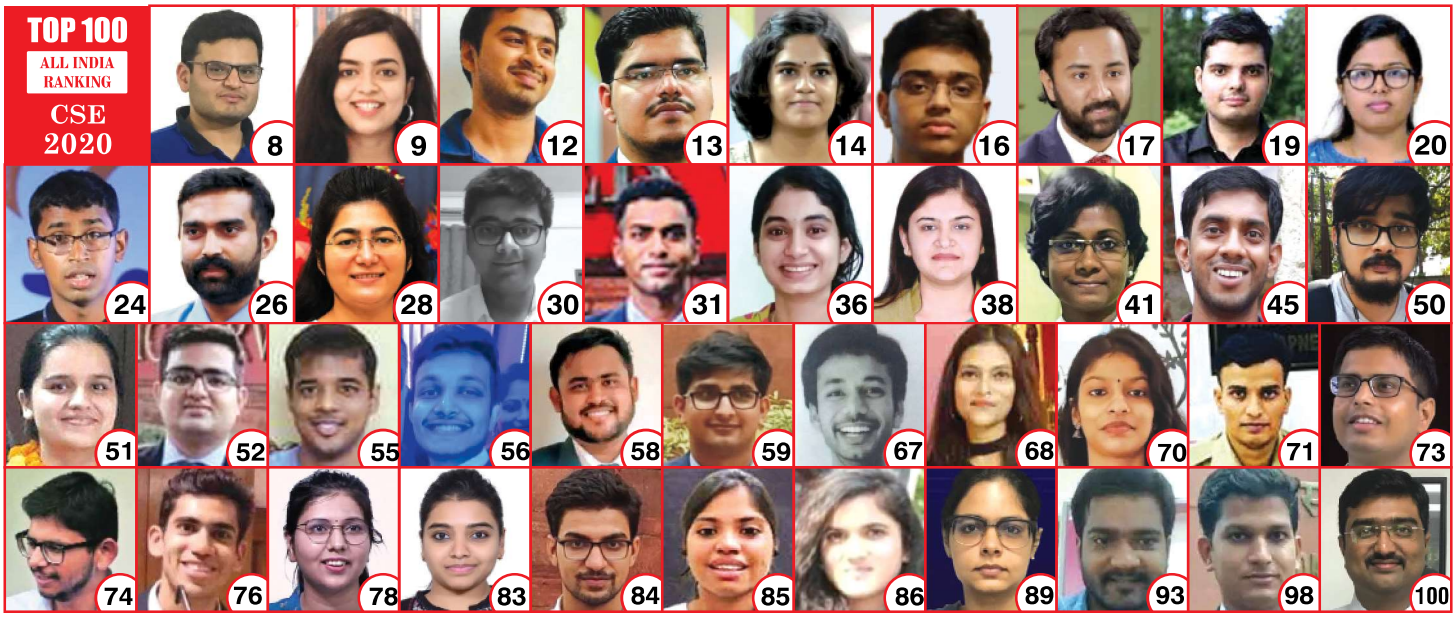
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