

## The defense minister called for a Culture of quality manufacturing to enhance India's defense exports

- The defense minister also presented **System for Advanced Manufacturing Assessment and Ranking (SAMAR)** certificates to the representatives of qualified industries.
  - ⊕ SAMAR certificate is a **benchmark to measure the maturity of defense manufacturing enterprises.**
- Currently, **Defense Exports** showed a **23-fold increase in exports** between 2013-2014 to 2022-23 and covering more than 85 countries.
  - ⊕ Despite this, India still accounts for **less than 0.2 percent of global arms exports.**
  - ⊕ India aims to achieve **US\$5 billion in defense exports by 2025.**
- **Challenges**
  - ⊕ The defense market is a **monopsony** as the Indian Armed Forces are the only buyers, which **creates market distortions.**
  - ⊕ **Lack of cohesion** between stakeholders such as the Indian Armed Forces, the Defense PSUs (DPSUs), private manufacturers, etc.
  - ⊕ **DPSUs and private manufacturer asymmetry** as the contribution of defense private companies to the total defense production is around 19% in FY 2022-23.
- **Way forward**
  - ⊕ Need to **export high-value weapon systems** like Aircraft Carrier, LCA-Tejas.
  - ⊕ **Extend defense line of credit** to Friendly Foreign Countries.
  - ⊕ **Increase the contribution** of defence private companies. Needs to
  - ⊕ become a part of the **Global Value Chains.**

### Government initiative for the promotion of defense export

Scheme for Promotion of Defense Exports (SPDE)

Defense Production and Export Promotion Policy (DPEPP) 2020.

Defense Acquisition Procedures 2020 (DAP).

Innovations for Defense Excellence (iDEX).

## Cabinet approves Central Sector Scheme for providing Drones to Women Self Help Groups (SHGs)

- Scheme aims to **provide drones to 15,000 selected Women SHGs** during period **2023-24 to 2025-2026** for providing rental services to farmers for agriculture purpose.
  - ⊕ SHGs are made up of **15 - 25 members of similar economic and social backgrounds** who come together to improve their living conditions.
- **Highlights of scheme**
  - ⊕ Approves holistic interventions by converging resources and efforts of **Department of Agriculture & Farmers Welfare, Department of Rural Development and Department of Fertilizers, Women SHGs and Lead Fertilizer Companies (LFCs).**
  - ⊕ **One member of SHGs** who is well qualified and **18 years (or, above)** will be elected by **State Rural Livelihood Mission and LFCs** for **15 day training.**
  - ⊕ **LFCs** will act as a **bridge between drone supplier companies and SHGs**; and **promote use of Nano Fertilizers** such as **Nano Urea and Nano DAP** by drones with SHGs.
- **Significance of scheme**
  - ⊕ Enabling women SHGs to **earn additional income of at least Rs. 1lakh per annum;**
  - ⊕ **Infusing advance technology** in agriculture for improved efficiency;
  - ⊕ **Enhance crop yield;**
  - ⊕ **Reduced cost of operation** for benefit of farmers.

### Drones and their regulation in India

- Drones are **Unmanned Aerial Vehicles** or **Remotely Piloted Aerial Systems** that are controlled either by a pilot on ground or with the help of technology.
  - **Benefits of Drones:** Agriculture (**Kisan drones**), Surveillance (**DRDO Nishant**), combat missions (**DRDO Rustom**) mapping of inhabited areas of villages (under **SWAMITVA** scheme), Target acquisition (**DRDO Lakshya**) etc.
  - **Ministry of Civil Aviation** published **Drone (Amendment) Rules, 2022**, which amended Drone Rules 2021, to regulate drone operations.
    - All drones **must be registered with DGCA**, and operators must have a license to fly them.
    - ⊕ **Red zone is 'no-drone zone'** within which drones can be operated only after permission from **Central Government.**

## Union Cabinet approves Terms of Reference (ToR) for the Sixteenth Finance Commission (FC)

- ▶ FC is a **constitutional body**, to be set up every fifth year or earlier by the President, under **Article 280** of the Constitution.
- ▶ The Commission's work involves **redressing the vertical imbalances between the taxation powers and expenditure responsibilities** of the center and the States respectively and **equalization of all public services across the States**.
- ▶ FC suggests the **distribution of taxes and grants and works based on the terms of reference** set by the finance ministry, after being approved by the center.
- ▶ **ToR for 16th FC:**
  - ⊕ **Distribution** between the Union and States of the **net proceeds of taxes** and **allocation** between the States of such proceeds.
  - ⊕ **Principles** for governing the **grants-in-aid** and revenues of state under article 275 of the Constitution.
  - ⊕ Measures needed to **augment the Consolidated Fund of a State** to supplement the resources of the Panchayats and Municipalities.
  - ⊕ The commission may **review present arrangements on financing Disaster Management initiatives**.
- ▶ The 16th FC recommendations, upon acceptance by the government, would **cover the period of five years** commencing April 1, 2026.

### 15<sup>th</sup> FC, chaired by NK Singh, set up in 2017, made recommendations for 2020-21 and 2021-22 to 2025-26. Its recommendations include:

- ▶ For vertical devolution, the share of states in **central taxes is to be 41%**.
- ▶ **Criteria for horizontal devolution** include income distance, area, population (2011), demographic performance, forest and ecology, and tax and fiscal efforts.
- ▶ Suggested to **reduce fiscal deficit to 4%** of GDP by 2025-26.

## United Nations Educational, Scientific and Cultural Organization (UNESCO) report warns of the ethical risks of Climate Engineering

- ▶ UNESCO's **World Commission on the Ethics of Scientific Knowledge and Technology (COMEST)** has published its first-ever report on the **Ethics of Climate Engineering**.
  - ⊕ **COMEST is an advisory body** and forum of reflection set up by UNESCO in 1998.
- ▶ **Climate Engineering**, also known as "geoengineering," is the **intentional large-scale intervention in the Earth's climate system to counter climate change**. It is classified into **two groups**:
  - ⊕ **Carbon Dioxide Removal (CDR)**: It draws emitted carbon dioxide from the atmosphere.
  - ⊕ **Solar Radiation Modification (SRM)**: It reflects sunlight back to space.
- ▶ **Key ethical concerns with Climate Engineering**
  - ⊕ It could create a "slippery slope" that **facilitates the acceleration toward deployment** without any ethical framework.
  - ⊕ Its techniques can create a "**moral hazard**", providing stakeholders with an excuse to **not reduce the use of fossil fuels**. It could be
  - ⊕ pushed by **corporations for economic gain**.
  - ⊕ Geoengineering tools have the **potential for military or geo-political use**.
- ▶ **Recommendation for reducing risks**
  - ⊕ States must **introduce legislation that regulates new forms of climate action**.
  - ⊕ Scientific research on climate engineering must be based on **ethical standards consistent with international law**. **Marginalized communities** must be **considered and involved** in Climate engineering policies.

## Ministry of Mines launched first ever tranche auction of critical and strategic minerals

- First tranche auction includes **20 blocks** covering **Lithium and Rare Earth Elements (REE)**.
  - ⊕ Of the 20 blocks, **16 are composite licences** (exploration, discovery, and up-to-processing) blocks, while **four are mining leases** (areas with proven reserve of minerals).
- Critical Minerals are elements that are **building blocks of essential modern-day technologies**, and are at **risk of supply chain disruptions**.
  - ⊕ In June 2023, Ministry of Mines identified **30 critical minerals** including Lithium, Cobalt, Nickel, Vanadium, etc.
- 2023 amendment to **Mines and Minerals (Development and Regulation) Act 1957** notified **24 minerals as Critical and Strategic minerals**.
  - ⊕ Amendment confers **power to grant mineral concessions** of these minerals to **Central Government**.
  - ⊕ **Revenue** generated from auctions will **accrue to State Governments**.
- **Significance of Critical minerals**
  - ⊕ Essential for country's **economic development and national security**.
  - ⊕ Lithium, Silicon etc. are **vital to manufacture technologies and materials used in aerospace and defence sector**.
  - ⊕ **REE, Cobalt etc. are important for climate friendly technologies** like electric vehicles, solar panels and wind turbines etc.

### Concerns associated with Critical Minerals

- **Lack of widespread availability** of these minerals, and **concentration of their extraction and processing in a few countries**, could lead to supply-chain vulnerabilities.
- These minerals **lack substitutes and have low end-of-life recycling rates**, which increases their supply risks.

## Union Cabinet approves continuation of Fast Track Special Courts (FTSCs) Scheme until March 31, 2026

- Launched in 2019, FTSCs is a **Centrally Sponsored Scheme and implemented by Department of Justice, Ministry of Law & Justice**.
  - ⊕ Central Share is to be funded from **Nirbhaya Fund**, aimed at **enhancing the safety and security for women** in country.
- FTSCs, designed as **dedicated courts**, were established for hearing rape and Protection of Children from Sexual Offences Act (POCSO Act) cases.
  - ⊕ **Enactment of Criminal Law (Amendment) Act 2018**, which included stringent punishment, including death penalty for rape offenders, **leading to the creation of FTSCs**.
  - ⊕ FTSCs are **linked to National Judicial Data Grid**.
  - ⊕ **761 FTSCs including 414 exclusive POCSO Courts are operationalised** in 30 States and Union Territories which have resolved over 1.95 lakh cases.
- **Benefits of FTSCs**
  - ⊕ **Ending sexual and gender-based violence. Reduce pending cases of Rape & POCSO Act**, relieving the burden on judicial system.
  - ⊕ **Ensure swift access to justice for victims of sexual crimes** through improved facilities and expedited trials.
  - ⊕ **Lessen the burden of cases**.
- **Concerns associated with FTSCs:** Lack of IT infrastructure and special training provided to judges; Inadequate number of judges etc.

## Also in News



### Press mud

- Sugarcane by product **press mud** can help generate **460,000 tonnes of compressed biogas Compressed Bio-Gas (CBG)** valued at Rs 2,484 crore.
- **Press mud** is the **residual solid product** obtained from sugarcane juice before crystallisation of sugar.
  - ⊕ **Bagasse, molasses and press-mud** are major waste products obtained from **sugar industry**.
- **Benefits of Press-mud**
  - ⊕ Act as **feedstock for biogas production** through **anaerobic digestion** and subsequent purification to create CBG.
  - ⊕ Improves **soil structure, air circulation, and water retention capacity** of soil.
- **Concern:** **Long term storage** of press mud leads to **gradual decomposition**, resulting in **breakdown of organic compounds**.



### Bandipur Tiger Reserve (BTR)

- A barren patch on fringes of BTR has been **transformed into an orchard**.
- **About BTR**
  - ⊕ Lies in **Western Ghats Mountains Biogeography Zone**.
  - ⊕ Forms part of **Nilgiri Biosphere Reserve** and is surrounded by **Mudumalai Tiger Reserve** in South, and **Wayanad Wildlife Sanctuary** in South West.
  - ⊕ On North West Side, **Kabini reservoir** separates Bandipur from Nagarhole Tiger Reserve.
  - ⊕ Landscape of Bandipur, Nagarhole, Mudumalai & Wayanad complex hosts **single largest Asian Elephant population** in world and is part of **Mysore Elephant Reserve**.
  - ⊕ **Flora:** Vegetation changes from **scrub type to moist deciduous type** from east to west.
  - ⊕ **Fauna:** Asian Elephant, Sloth Bear, Gaur, Four-horned antelope etc.



### Comet P12/Pons-Brooks

- Astronomers have photographed the enigmatic Comet P12/Pons- Brooks from the **Indian Astronomical Observatory in Hanle, Ladakh** using the **Himalayan Chandra Telescope**.
- **Comet P12/Pons-Brooks:**
  - ⊕ A celestial object that has been playfully nicknamed the **'Devil Comet'** or likened to the **'Millennium Falcon'** for its distinctive appearance.
  - ⊕ This comet, first discovered in the year **1812**, completes an orbit around the Sun in around **71 years**.
- **Himalayan Chandra telescope**
  - ⊕ It is a **2-meter optical-infrared telescope**.
  - ⊕ It is at an altitude of **4500m** and operated by **Indian Institute of Astrophysics, Bengaluru**.



### United National Liberation Front (UNLF)

- Manipur's Armed Group **UNLF Signs Peace Deal** ending 6-Decade- long armed movement.
- **About UNLF**
  - ⊕ Founded in **1964**, the UNLF is the oldest **Meitei insurgent group** in the northeastern state of Manipur.
  - ⊕ In 1990, it decided to launch an armed struggle for the **'liberation' of Manipur from India** and formed an armed wing called the **Manipur People's Army (MPA)**.
- **Government dedicated steps for North East:** Peace agreements with insurgent groups; Prime Minister's Development Initiative for North East Region (**PM-DevINE**); Act East Policy, etc.



### Tropicalisation

- A study indicates that **rising sea temperatures** due to climate change are causing **tropical marine species to move from equator towards poles and retraction of temperate species**.
  - ⊕ This **mass movement of marine life** has been termed **tropicalisation**.
- **Mediterranean Sea** is now considered a **tropicalisation hotspot** due an increase in tropical species.
- Tropicalisation together with **Borealisation and Desertification** contribute to global redistribution of biota and rearrangement of ecological communities.
  - ⊕ **Borealisation is expansion of temperate species** (terrestrial and marine) **into Arctic polar- regions**.



### Pradhan Mantri Janjati Adivasi Nyaya Maha Abhiyan (PM JANMAN)

- **Union Cabinet has approved PM JANMAN** with total outlay of Rs. 24,104 crore.
  - ⊕ Funds will be made available to **implement the Mission in next three years under Development Action Plan for Scheduled Tribes**.
- **PM JANMAN aims to protect the tribes on the verge of extinction and nurture them.**
  - ⊕ It'll cover **75 Particularly Vulnerable Tribal Groups (PVTGs)** residing in 18 states and union territories.
  - ⊕ **PM-JANMAN will focus on 11 critical interventions through nine ministries, including Ministry of Tribal Affairs, which includes**
    - ◆ Connecting roads, safe housing, Water supply, Health facilities, vocational education and skilling, etc.



### Parthenon Sculptures

- The British **Prime Minister canceled a meeting with his Greek counterpart** over the status of the Parthenon Sculptures housed at the British Museum.
- **About Parthenon Sculptures:**
  - ⊕ They were made **between 447 BC and 432 BC**.
  - ⊕ They are a collection of different types of marble architectural decoration from the **Parthenon temple on the Acropolis in Athens (Greece)**.



### Gajraj Suraksha (Elephant safety) system

- An **Artificial Intelligence -based sensor system "Gajraj"** will be deployed to prevent **elephant deaths in rail accidents**.
  - ⊕ It will cover **700 km railway track across West Bengal, Odisha, Jharkhand, Assam, Kerala, Chhattisgarh, and Tamil Nadu**.
- **Gajraj system senses pressure waves** generated by movement of elephants along tracks.
  - ⊕ It relies on **Optical Fibre cables** and detects elephant's presence **upto 200 meters** ahead of their arrival on rail track.
- Additionally, railway routes — **Delhi-Mumbai and Delhi-Howrah** — will be fully **equipped with 'Kavach' by March 2025**.
  - ⊕ Based on **Radio Frequency Identification technology**, Kavach is an **anti-collision system** developed by Research Design and Standards Organisation.

## Places in News



### Lithuania (Capital: Vilnius)

- India and Lithuania held a meeting to strengthen maritime bilateral relations.
- **Political features**
  - ⊕ **Location:** Located in northeastern Europe, the southernmost and largest of the three Baltic states (**other two Estonia, and Latvia**).
  - ⊕ **Boundaries:** Latvia to the north, Belarus to the east and south, Poland and the detached Russian oblast of Kaliningrad to the southwest, and the Baltic Sea to the west.
- **Geographical features:**
  - ⊕ **Important Rivers:** Nemunas River
  - ⊕ **Largest lake:** Lake Drūkšiai
  - ⊕ **Highest Point:** Aukštojas Hill
  - ⊕ **Language:** Lithuanian is considered the oldest surviving Indo-European language in the world.

