

EXERCISE TALISMAN SABRE, 2025



- It is the largest **bilateral military exercise between Australia and the United States**, with **multinational participation**.
- It has been conducted between Australia and the United States **biennially since 2005**.
- It is conducted across a **number of locations across Australia and offshore**, using both Defence and non-Defence training areas.
- It is designed to **advance a free and open Indo-Pacific** by strengthening partnerships and interoperability among key allies.
- Now in its **11th iteration**, **Talisman Sabre 2025 is the largest** and most sophisticated warfighting exercise ever conducted in Australia.
 - More than **35,000 military personnel** are participating.
 - **In addition to the United States**, forces from **Canada, Fiji, France, Germany, India, Indonesia, Japan**, the Netherlands, New Zealand, Norway, Papua New Guinea, the **Philippines**, the Republic of **Korea**, Singapore, Thailand, Tonga, and the **United Kingdom** are participating.
 - Malaysia and Vietnam will also attend as observers.
 - This year's exercise will consist of live-fire exercises and field training activities, incorporating force preparation activities, amphibious landings, ground force manoeuvres, and air combat and maritime operations.

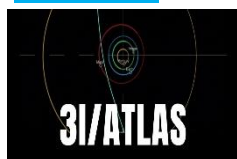
WHAT IS THE ADEETIE SCHEME?



- ADEETIE (Assistance in Deploying Energy Efficient Technologies in Industries & Establishments) Scheme is a flagship initiative of the **Bureau of Energy Efficiency (BEE)** under the **Ministry of Power**, Government of India.

- It aims to **catalyze the adoption of energy-efficient technologies among** Micro, Small, and Medium Enterprises (MSMEs), enhancing their competitiveness and contributing to India's climate goals.
- This Scheme offers comprehensive **financial and technical support** to Udyam-registered MSMEs, enabling them to **implement energy-efficient technologies** with a proven **potential to save at least 10% of energy**.
- The scheme is structured to provide targeted assistance in the form of **interest subvention on loans, Investment Grade Energy Audits (IGEA), Detailed Project Reports (DPRs), and post-implementation Monitoring and Verification (M&V)**.
- The scheme is envisaged to provide **interest subvention of 5% for Micro and Small Enterprises and 3% for Medium Enterprises on loans**, ensuring accessibility and affordability for MSMEs seeking financial aid for energy efficiency projects.
- The scheme also includes provisions for **capacity building**, with BEE providing assistance through its **ADEETIE online platform**, designed to facilitate financing for energy-efficient projects in the MSME sector.

3I/ATLAS



On July 1, scientists using the ATLAS telescope in Chile reported **discovering an object named 3I/ATLAS, tracked since June 14.**

- It is an interstellar comet, likely to be the **oldest comet** ever observed by scientists, potentially predating the formation of the solar system by over **3 billion years**.
- Its identification as an interstellar object was based on its **highly elliptical orbit, and fast velocity through space**, travelling at **57–68 km/s relative to the Sun**.
- The comet's trajectory traces back to the direction of the **constellation Sagittarius**, suggesting its origin lies far outside our solar system, possibly from the **Milky Way's thick disk**.

- **Its orbit is hyperbolic**, which means it will pass once through the solar system and never return. It will exit the solar system permanently after a brief interaction with the Sun.
- **Closest approach to Earth:** About 270 million km.
- **Closest approach to the Sun:** Around 210 million km, expected on **October 29–30, 2025**, slightly within Mars's orbit.

Physical Characteristics and Observations

- **3I/ATLAS is confirmed to be an active comet**, with a visible **coma**, a cloud of ice particles and dust surrounding the nucleus.
- As it nears the Sun, it is expected to **develop a tail**, a characteristic cometary feature formed by solar heating.
- The nucleus is estimated to be **10–30 km wide**, making it larger than previous interstellar visitors:
 - **1I/Oumuamua (2017)**
 - **2I/Borisov (2019)**
- Its composition and rotation period are under active study using various **ground-based telescopes**

About Comets

- Comets are **icy celestial bodies** composed of **frozen gases** like **water, ammonia, methane**, and **carbon dioxide**, mixed with **rocky and metallic dust**.
- Comets have **highly elliptical orbits**, unlike the near-circular orbits of planets.
- **Short-period comets** originate in the **Kuiper Belt**, and **long-period comets** come from the distant **Oort Cloud** (located between **5,000–100,000 AU** from the Sun).
- As they near the Sun, **comets heat up and release gases**, forming a **coma** and sometimes a **tail**.
- **Halley's Comet**, one of the most famous comets, **visits Earth every 76 years**, last seen in **1986**.

ORDINARILY RESIDENT



- According to **Section 19** of the RPA, only a person who is an **'ordinarily resident'** in a constituency can be enrolled in its **electoral roll**.
- **Section 20** of the RPA defines the term **'ordinarily resident'**. It states that **merely owning or possessing a house** in a constituency **does not qualify** a person as an ordinarily resident.
- A person **temporarily absent** from their regular residence (for work, travel, etc.) is still considered **ordinarily resident** in that location.
- Specific categories covered under Section 20:
 - **Armed forces personnel.**
 - Members of the **State armed police** serving outside the State.
 - **Central government employees** posted abroad.
 - Persons holding a **constitutional office** declared by the President in consultation with the EC.
 - **Their spouses** are also considered ordinarily resident in the original constituency.
- **Section 20A (added in 2010)** allows **Non-Resident Indians (NRIs)** to register and vote from the address mentioned in their **passport**, even if they live abroad for extended periods.
- The **Election Commission of India (ECI)** is responsible for preparing electoral rolls under the **Representation of the People Act, 1950 (RP Act)**.

Rules Governing Electoral Rolls

- The **Registration of Electors Rules, 1960 (RER)**, framed by the Central Government in consultation with the ECI, govern the:
 - **Preparation of electoral rolls.**
 - **Inclusion and exclusion** of names.
 - Process of **verification** and changes in voter lists.

Why 'Ordinarily Resident' Status Matters

- The requirement ensures that the voter has a **genuine and habitual connection** with the constituency.
- It **maintains electoral integrity**, reduces **fraudulent registrations**, and ensures **accountability in representation**.
- The **Gauhati High Court (1999, Manmohan Singh Case)** ruled that:
 - The person should be a **habitual and permanent resident**.
 - There must be an **intention to dwell** in that place.
 - A **reasonable person** must accept the individual as a resident.

CARBON CREDIT TRADING SCHEME (CCTS)



- The **Carbon Credit Trading Scheme (CCTS)** is a **market-based framework** developed under the **Indian Carbon Market (ICM)** to **regulate and trade carbon credits**.
- It aims to accelerate India's transition to a **low-carbon economy** by assigning a **monetary value to greenhouse gas (GHG) emissions**.
- **Objective:** The primary aim of CCTS is to **decarbonise industrial sectors** by shifting focus from **energy efficiency (PAT Scheme)** to **GHG emissions intensity**
- The CCTS is overseen by the **Bureau of Energy Efficiency (BEE)** and the **National Steering Committee for Indian Carbon Market (NSCICM)**, ensuring **transparent and accountable governance**.

Transition from PAT to CCTS

- India's earlier **Perform, Achieve, and Trade (PAT)** scheme emphasised **energy efficiency improvements** in energy-intensive sectors through **Energy Saving Certificates (ES Certs)**.

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- The CCTS supersedes PAT, focusing on **direct GHG emissions intensity** and issuing **Carbon Credit Certificates (CCC)**, each representing **1 tonne of CO₂ equivalent reduced**.

Key Mechanisms under CCTS

- **Compliance mechanism:** Entities in obligated sectors must meet **sector-specific emission intensity targets**. Those who exceed targets earn **tradable CCCs**, while others must **buy credits**.
 - **Offset mechanism:** Entities outside the compliance mandate can **voluntarily participate** by reducing emissions and earning carbon credits, promoting **broader climate participation**.
 - Under its **Nationally Determined Contributions (NDCs)**, India targets a **45% reduction in emission intensity** of its GDP by **2030** (relative to 2005 levels). The CCTS is a **key policy instrument** toward achieving this goal.
 - The eight sectors include aluminium, cement, paper and pulp, chlor-alkali, iron and steel, textiles, petrochemicals, and petro refineries.
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AIRCRAFT ACCIDENT INVESTIGATION BUREAU (AAIB): INDIA'S AIR CRASH PROBE AGENCY

- The Aircraft Accident Investigation Bureau (AAIB), under India's Ministry of Civil Aviation, investigates civil aviation accidents and serious incidents.
- It was established in 2012 to ensure investigation independence from regulatory bodies like the Directorate General of Civil Aviation (DGCA), following global standards set by the International Civil Aviation Organization (ICAO).
- **Legal Framework of the AAIB**
 - Under Section 7 of the Aircraft Act, 1934, the Government of India is empowered to make rules for investigating aircraft accidents in India or involving Indian-registered aircraft.

- Initially, the Air Safety Directorate of DGCA handled these investigations under the Aircraft Rules, 1937, aligned with Article 26 of the Chicago Convention.
- **Governing Rules**
 - The Aircraft (Investigation of Accidents and Incidents) Rules, 2012 were formulated to formalize AAIB's role.
 - These rules were later amended in 2017 and 2021.
 - AAIB is now designated as an "Attached Office" of the Ministry of Civil Aviation.

Functions and Role of the AAIB

- AAIB classifies safety occurrences as Accidents, Serious Incidents, and Incidents.
- It is empowered with **immediate and unrestricted access** to all relevant evidence from any agency or organisation, without requiring prior approval from judicial or government authorities.
- It investigates all Accidents and Serious Incidents involving aircraft over 2,250 kg All Up Weight (the total weight of an aircraft with passengers and cargo) and Turbojet aircraft.
- Investigations focus solely on preventing future accidents, not on assigning blame or liability (as per Rule 3 of Aircraft (Investigation of Accidents and Incidents) Rules, 2017).

Investigation Process:

- **Immediate site investigation:** AAIB sends investigators to collect and preserve perishable evidence, black boxes, wreckage samples, etc.
- **Evidence collection:** Includes data from operators, regulators, involved personnel, and unrestricted access to all relevant materials.
- **Expert analysis:** AAIB may engage domain experts and collaborate with agencies like Hindustan Aeronautics Limited and DGCA laboratories.
- **Report preparation:** After internal review, a final report is published and shared with the ICAO and involved states.

BRIDGING THE SKILLS GAP - INDIA'S EMPLOYMENT CHALLENGE AND THE PATH TO WORKFORCE READINESS

- Despite being one of the largest producers of graduates globally, India faces a **persistent challenge of integrating its educated youth into the formal workforce**.
- Recent data from Employees' Provident Fund Organisation (EPFO) and key employment reports underline the **urgency of skilling, reskilling, and policy interventions** to make India's workforce future-ready.

Skills Deficit in the Digital Age:

- **Alarming statistics on digital literacy (India Employment Report 2024):**
 - 75% struggle to send an email with attachments.
 - Over 60% cannot perform basic file operations.
 - 90% lack spreadsheet skills (e.g., using formulas).
 - **Highlights a severe skills mismatch** in a tech-driven job market.
- **Future of Jobs Report 2025 (World Economic Forum):**
 - By 2030, 170 million new jobs will be created (14% of total employment), and 92 million jobs to be displaced (8%).
 - **Net growth will be 78 million jobs (or a 7% increase in total employment).**
 - India must act urgently to close the skill gap and avoid losing this opportunity.

Structural and Policy Reforms Needed:

- **Educational reforms and industry collaboration:**
 - Mandatory **industry-academia partnerships** for all higher education institutions.
 - Educational institutions must be made **accountable for job placements**.
 - **Establish accreditation linked to placement outcomes.**
- **Curriculum and pedagogical reforms:**
 - Make **Idea Labs and Tinker Labs** mandatory in schools and colleges.
 - Ensure **compulsory training** in soft skills, foreign languages, and humanities.



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- **Global perspective in skilling:**
 - Train youth for international labour markets, especially ageing Western nations.
 - **Example:** India-EU **Link4Skills** project via the International Institute of Migration and Development.
- **Institutional overhaul in education governance:**
 - Propose creation of **Indian Education Services** akin to IAS to attract top talent in education policy and management.
 - Encourage industry professionals to teach in academia, **bridging theory-practice gaps.**

Way Forward - From Degree to Deployment:

- India's demographic advantage risks becoming a liability unless it is matched by skill-readiness, job-linkages, and futuristic policy-making.
- **Coordinated action is needed** to strengthen education-employment linkages, expand digital and vocational training, promote cross-border employment readiness, and ensure accountability in both public and private education systems.