

1. **Global Gender Gap Report 2025:** Recently, the World Economic Forum (WEF) released the **Global Gender Gap Report 2025**, highlighting persistent gender disparities across the globe.
  - **Key Highlights:** Iceland continues to lead the index for the **16th consecutive year**, followed by Finland, Norway, the United Kingdom, and New Zealand.
    - **Global Trends:** The global gender gap has closed by **68.8%**, marking the strongest improvement since the **COVID-19 pandemic**.
    - At the current pace, **full global gender parity is still 123 years away**.
    - **Bangladesh** is the **highest-ranked country in South Asia**, climbing **75 places** to secure the **24th position** globally.
    - **India** has dropped to the **131st position** out of 148 countries, with a **gender parity score of 64.1%**, ranking below **Bhutan (119)**, **Nepal (125)**, and **Sri Lanka (130)**.
    - Only **Maldives (138)** and **Pakistan (148)** rank lower than India in the region.
  - **About Global Gender Gap Report:** An index designed to measure gender equality.
    - Annually benchmarks the current state and evolution of gender parity across different dimensions.
    - **Published by:** World Economic Forum.
    - **Parameters:** Economic participation and opportunity , Educational attainment , Political empowerment and Health and survival.
2. **State and Trends of Carbon Pricing 2025 :** Recently, the World Bank's **State and Trends of Carbon Pricing 2025** report highlighted a global surge in the adoption of **carbon pricing instruments**.  
**About Carbon Pricing :** A cost on GHG emissions, internalizing the environmental and health costs of climate change. It works through three main tools:
  - **Emissions Trading Systems (ETS):** Also known as **cap-and-trade** systems where governments set emission limits, and companies can **trade emission allowances**.
  - **Carbon Taxes:** Governments impose a direct tax on the **carbon content of fossil fuels** or on total GHG emissions
  - **Carbon Credit Trading Mechanisms:** Credits are earned from projects that **reduce or remove emissions** (e.g., afforestation, clean cookstoves).

- **Key Findings: Global Growth:** Carbon pricing instruments have expanded to **80 systems** globally (up from 5 in 2005), including **43 carbon taxes** and **37 Emissions Trading Systems (ETS)**, generating **over \$100 billion in revenue in 2024**.
  - **Sectoral Coverage:** The **power sector** has the highest coverage, followed by **industry, mining, buildings, and transport**, while **waste and agriculture** remain largely uncovered.
  - **India's Carbon Market Progress:** India is developing a **rate-based ETS** focused on **emissions intensity**, with performance benchmarks for heavy industries.
- 3. **Arsia Mons :** Recently, NASA's **2001 Mars Odyssey spacecraft** recently captured a rare and striking image of **Arsia Mons**, one of the largest volcanoes in the solar system.
  - The image shows the giant volcano rising above a dense layer of early morning clouds on Mars.
- **About Arsia Mons:** Lies in the **Tharsis region** of Mars and forms part of the **Tharsis Montes**—a chain of three giant volcanoes. It sits at the **southern end** of this group.
  - **Massive Size:** Towering at over **18 kilometers**, with a base stretching over **300 kilometers**, it's far bigger than any volcano on Earth, including Hawaii's Mauna Loa.
  - **Huge Crater:** At the summit is a vast depression called a **caldera**, measuring around **110 kilometers wide**, formed by collapsed magma chambers.
  - **How it formed:** Arsia Mons likely developed gradually as **layers of fluid lava** built up over time, a typical trait of **shield volcanoes**.
  - **Surface Clues:** Its slopes are marked by **lava flows, channels, and volcanic ridges**, hinting at a long and dynamic volcanic history.
  - **Volcanic History:** Scientists believe Arsia Mons was active for billions of years, with its last eruptions possibly occurring just 2 million years ago—recent in geological terms.
- 4. **Copernicus Climate Change Service (C3S):** Recently, the European Union's **Copernicus Climate Change Service (C3S)** reported that **May 2025** was the **second-warmest May** with global temperatures **1.4°C above the 19th-century average**.
  - **Key Highlights: Regional Hotspots:** Unusually high temperatures were recorded in the Middle East, West Asia, Western Antarctica, Northeastern Russia, and Northern Canada, raising risks of heatwaves, wildfires, glacier melt, and biodiversity loss.

- **Uneven Climate Action:** While **China and the EU** have reduced emissions, regions like the **U.S. under older fossil fuel policies** and some large corporations have contributed to rising emissions, leading to uneven global progress.
- **About C3S:** One of six thematic services under the **Copernicus Earth Observation Programme** of the European Union.
  - **Operational Structure:** It operates through a network of research infrastructures across Europe and the world.
  - **Purpose:** Provides reliable data on **past, present, and future climate trends** to support informed decisions.
  - **Scientific Basis:** Draws from research under the **World Climate Research Programme (WCRP)** and user needs identified by the **Global Climate Observing System (GCOS)**.
  - **Implementation:** Managed by the **European Centre for Medium-Range Weather Forecasts (ECMWF)** on behalf of the **European Commission**.
- 5. **Himalayan Long-Tailed Myotis:** Scientists have recently identified a new bat species named the **Himalayan Long-Tailed Myotis (Myotis himalaicus)** in the Western Himalayan region.
  - **About Himalayan Long-Tailed Myotis :** Belongs to the **Myotis frater complex**, a group of similar bat species spread across parts of **East and Central Asia**, including **China, Japan, Korea, and Uzbekistan**.
    - **Features:** Medium-sized bat: About **3.5 inches long** and weighs **under 1 ounce**. Notable for its **long thumbs with short, strong claws, short ears, delicate teeth, and small feet**—adapted for agile movements in forest canopies.
    - **Ecological Importance:** Helping manage agricultural pests and disease vectors like mosquitoes.
      - ✓ Certain bats feed on **nectar and fruits**, assisting in **pollination** and **seed dispersal** for forest regeneration.



- 6. National Automated Fingerprint Identification System (NAFIS):** Recently, the Central Government revised the procedure for the Foreigners Identification Portal (FIP) under the National Automated Fingerprint Identification System (NAFIS).
- **About NAFIS:** A centralised digital system that stores and matches **fingerprints of criminals** across India.
    - It allows **real-time access** for police and law enforcement agencies to upload and search criminal fingerprint records.
    - **Working:** Each criminal is assigned a **unique 10-digit National Fingerprint Number (NFN)** based on their biometric data.
      - ✓ The **first two digits denote the state code**, followed by an individual number.
      - ✓ This ID stays the same for life, allowing all future crimes linked to that person to be traced under one number.
    - All fingerprint data is stored digitally and can be **instantly matched** during investigations. This makes it easier to find **connections with past crimes**, active warrants, or alerts in other police databases.
    - Managed by the **National Crime Records Bureau (NCRB)** at the **Central Fingerprint Bureau** in New Delhi.
- 7. Tourette Syndrome:** Recently, **Tourette Syndrome has come into focus** as health experts highlight its impact on children and the need for early support.
- **About Tourette Syndrome:** A **neurological condition** that leads to involuntary, repetitive movements or sounds called **tics**.
    - It generally appears between the ages of **2 & 15**, with most cases beginning around **age 6**.
    - The condition affects about **0.3% to 1%** of people globally and is **more common in boys** than in girls.
  - **Types of Tics:**
    - **Simple Motor Tics:** Quick, repeated movements like eye blinking, shoulder shrugging, or head jerks.
    - **Simple Vocal Tics:** Sounds such as throat-clearing, grunting, or sniffing.

- **Complex Motor Tics:** Involve more deliberate actions like jumping, touching objects, or body twisting.
  - **Complex Vocal Tics:** May include repeating words (echolalia) or, rarely, inappropriate language (**coprolalia**).
  - Tics often increase with **stress, excitement, or anxiety**, but tend to ease when the person is **calm or asleep**.
  - **Treatment :** There's no permanent cure yet, but treatments can reduce symptoms.
    - **Cognitive Behavioural Therapy (CBT)** has shown positive results in managing tics and associated anxiety.
8. **ICPV 25444 pigeonpea:** Recently, scientists have developed a new **heat-tolerant variety of pigeonpea (tur dal)** named **ICPV 25444**, using a fast-track **speed breeding technique**. This breakthrough aims to help India **reduce pulse imports** and **utilize idle farmland** more effectively.
- **About ICPV 25444:** Withstands extreme heat — up to **45°C**, making it perfect for India's hot and semi-arid regions.
    - Can be grown in **post-kharif rice fallows** — an estimated **12 million hectares** that usually remain uncultivated due to **heat and water shortage**.
    - **Features :** Grows four crop generations per year, slashing development time from 15 to 5 years. Harvest-ready in just **4 months** instead of the usual 6–7 months.
    - **Doubles yield** from about **1.1–1.2 tonnes/ha** to **2 tonnes/ha** — improving crop rotation and farm income.
    - **Government Support:** The Union Budget 2025–26 announced a **6-year Mission for Self-Reliance in Pulses**, focusing on crops like **Tur, Urad, and Masur**.