

1. **QS World University Rankings:** Recently, IIT Delhi achieved a major milestone by becoming the highest-ranked Indian institution in the **QS World University Rankings 2026**, climbing 27 places to secure the **123rd global position**.
  - This marks the first time since 2018 that IIT Delhi has surpassed IIT Bombay, which had topped among Indian institutes in six of the past ten editions.
  - **Key Highlights :** **IIT Bombay** slipped **11 spots** to **129th**, last year's highest Indian rank holder.
    - **IIT Madras** made it to the **top 200 for the first time**, now ranked **180 (up from 227)**.
    - **MIT** ranked **1st globally** for the 14th consecutive year.
    - **Top 5 globally:** Massachusetts Institute of Technology, Imperial College London, Stanford, Oxford, Harvard.
    - **India ranked 4th** in total institutions listed (54), after **USA (192)**, **UK (90)**, and **China (72)**.
  - **About QS World University Rankings:** Published by QS Quacquarelli Symonds, a leading global higher education consultancy. Ranks the world's top 1,000+ universities each year.
  - **About QS Quacquarelli Symonds:** It is a prominent global provider of services, analytics, and insight to the higher education sector worldwide.
    - **Focus:** On delivering valuable support and resources to the global higher education community.
    - **Mission:** To empower individuals from all over the world to achieve their full potential by facilitating educational success, promoting international mobility, and aiding in career development.
    - **10 indicators:** Academic reputation, faculty student ratio, international relation network, international faculty, students, and outbound exchange students etc.
2. **Operation Sindhu :** Recently, as tensions grew between Iran and Israel, India started **Operation Sindhu** to bring back over 4,000 Indians, including many students, from Iran safely.
  - **Key Highlights:** First batch of 110 students was evacuated from northern Iran to Armenia .
    - These students flew from **Yerevan to Delhi** and evacuations are supervised by Indian missions in **Iran and Armenia**.
    - Ministry of External Affairs(MEA) stated that Indian nationals are being moved from conflict zones to **safer areas** within Iran before evacuation.

- **24x7 control room** set up by the **Ministry of External Affairs (MEA)** in **New Delhi**.
- Indians in Iran advised to stay in contact with the **Indian Embassy in Tehran** via emergency helplines.
- India coordinating with **Armenia, Turkmenistan, Iraq**, and using possible sea routes via **Persian Gulf**.
- Some **Indian students injured** in a strike, as confirmed by **Iranian embassy officials**.
- Government appreciated cooperation by **Iran and Armenia** in facilitating the evacuation.

**3. Ocean Darkening:** A recent scientific study has raised alarms about a growing threat to oceanic ecosystems — **ocean darkening**.

- According to the findings, **more than 20% (1/5<sup>th</sup>) of the world's oceans have darkened significantly** over the past two decades, potentially triggering profound consequences for marine life and global climate regulation.
- **About Ocean darkening:** Refers to the **reduction in sunlight penetration** into ocean waters, leading to the **shrinking of the photic zone** — the upper layer (up to ~200 meters) where sunlight enables **photosynthesis**, which supports marine life.
- **Significance of the Photic Zone :** It supports nearly **90% of the world's marine life** by enabling photosynthesis.
  - It plays a **crucial role in regulating the global climate** through carbon absorption.
  - It boosts **ocean productivity** and helps sustain **global fisheries**.
- **Causes of Ocean Darkening:** Increased runoff of **agricultural nutrients, organic matter, and sediments** due to rainfall.
  - Formation of **algal blooms**, which block sunlight and reduce water clarity.
  - Changes in **plankton dynamics**, including behavior and density.
  - **Rising sea surface temperatures** affecting light penetration.
  - Disruptions in **ocean circulation patterns** that impact water clarity and light distribution.
- **Impacts on Marine Ecosystems:** Shrinking photic zones force species that rely on sunlight/moonlight cues for feeding, movement, and reproduction into **shallower waters**.
  - Results in **greater competition** and may disrupt **marine food webs**, even in areas with **low fishing pressure**.

- 4. Performance Grading Index (PGI) 2.0 Report (2023–24):** Recently, the Ministry of Education released the **Performance Grading Index (PGI) 2.0** for the academic year **2023–24**, assessing states and union territories on a **1,000-point scale** based on key indicators of **school education performance**.
- **Key Findings: Top Performer: Chandigarh** secured the highest score of **719**, placing it in **Grade Prachesta-1** (score range: 701–760).
    - **Bottom Performer: Meghalaya** scored **417**, placing it in **Grade Akanshi-3** (score range: 401–460).
    - **24 States/UTs** showed **improvement** in their performance compared to the previous year.
    - **No State/UT** crossed into the **highest grade range** of **761–1000**, indicating room for improvement across the board.
    - **Bihar and Telangana** recorded the most notable improvement in access to education.
    - **Delhi, Jammu & Kashmir, and Telangana** made the highest progress in infrastructure development.
  - **About PGI :** A data-driven assessment tool designed to evaluate the performance of **school education systems** across States and Union Territories in India.
    - **Launched in: 2017**; the updated **PGI 2.0** version is aligned with the **National Education Policy (NEP) 2020** and the **Sustainable Development Goals (SDGs)**.
    - **Published by: Ministry of Education**, Government of India.
    - **Coverage:** Assesses performance across **6 key domains** using **73 indicators**: Learning Outcomes, Access, Infrastructure & Facilities, Equity, Governance Processes and Teacher Education & Training
    - **Grading Scale:** Total score is out of **1000 points**, divided into **10 performance grades** — from **Daksh (highest)** to **Akanshi-3 (lowest)**.
- 5. Invasive Alien Species (IAS):** Recently, as global trade adapts to new bilateral agreements and changing tariffs, a growing concern has emerged: the rising spread of **Invasive Alien Species (IAS)**.
- A new analysis warns that these biological intrusions, often unintentionally introduced via trade routes, pose significant risks to **biodiversity, food security, public health, and economic stability**.

- **Key Highlights:** The **giant African snail**, introduced in colonial Calcutta (c. 1847), is one of India's earliest and most damaging IAS cases.
  - **Deliberate introductions** (e.g., cane toads in Australia, mosquitofish and guppies in India) for biocontrol have often backfired.
  - **Biofouling** during maritime trade allows aquatic species like the **Asian paddle crab** to travel undetected.
  - India's import of **PL 480 wheat (1955)** introduced **Parthenium**, a toxic invasive plant now found nationwide.
  - Introduction of **Tilapia** for food security displaced native freshwater species in Indian rivers.
- **About IAS:** These species are not native and are introduced through human activities such as agriculture, aquaculture, pet trade, or transport (like ballast water).
  - **Key Characteristics** They reproduce rapidly, enabling them to spread quickly and dominate new habitats.
    - ✓ They often thrive due to the absence of natural predators or competitors in the introduced environment.
    - ✓ Their broad environmental tolerance allows them to survive in extreme or varied climatic conditions.
    - ✓ They can disrupt ecosystem functions by altering processes like nutrient cycling, fire patterns, and habitat structure.

**6. Rudrastra :** Recently the **Indian Army successfully tested Rudrastra**, a cutting-edge battlefield drone developed indigenously by **Solar Aerospace and Defence Limited (SDAL)**.

- **About Rudrastra:** Hybrid Vertical Take-Off and Landing (VTOL) drone that combines helicopter-style take-off with fixed-wing cruising, ensuring high versatility and stealth.
  - It is designed for **deep strike missions**, capable of targeting **enemy artillery positions or terrorist camps** far behind enemy lines.
  - The drone is armed with **smart anti-personnel warheads**, allowing for **precise strikes on enemy troops and positions**.



- It can **engage targets over 50 km away** and demonstrated a **range of 170 km** during tests at **Pokhran**, remaining airborne for **about 90 minutes**.
- Rudrastra can **relay real-time video** during its mission and **autonomously return** after the strike.
- It also successfully dropped an **airburst munition**, which detonated close to the ground, inflicting **wide-area damage** — ideal for neutralizing **enemy camps or artillery batteries**.
- The drone offers the Army a **stand-off strike capability**, allowing it to **hit critical targets from a safe distance** without endangering soldiers.

**7. Global Energy Monitor (GEM) :** Recently, a report by the Global Energy Monitor (GEM) ranked **India fourth globally** for its potential to generate **solar energy from abandoned coal mines**, highlighting a promising opportunity for clean energy transition.

- **Key Highlights :** **63 disused mine sites** identified across India, spanning **500+ sq. km**, with potential to generate **27.11 GW** of solar power (~37% of current installed capacity).
  - **Telangana, Odisha, Madhya Pradesh, and Chhattisgarh** among top 20 global regions with highest land availability for solar conversion, jointly offering over **22 GW** potential.
  - Globally, **288 GW** of solar potential identified across **28 countries** with recently closed/open-pit coal mines.
- **Global progress:** **China leads** with 90 coal-to-solar projects (14 GW) and 45 more underway (9 GW).
  - **15 countries** have launched renewable projects on former coal mines.
- **About GEM :** an independent research organization supporting the global shift to clean energy.
  - It **produces databases, reports, and tools** to help track and understand the global energy landscape.
  - Promotes **data transparency and open access** to energy system information worldwide.
  - Its data is widely used by key global institutions, including: International Energy Agency (IEA), United Nations Environment Programme (UNEP), World Bank and Bloomberg Global Coal Countdown.