

7. Short News

1. Radiative Forcing-Based Accounting (RFA)

Definition – A new framework that measures the actual warming impact of greenhouse gases based on how much energy they trap in the atmosphere (measured in Watts per square meter).

Key Difference – Unlike traditional carbon metrics, RFA accounts for both the intensity and the duration of a gas. For example, it tracks how CO₂ lasts for centuries while Methane decays in decades.

Goal – To help policymakers prioritize "quick wins," such as reducing methane to slow down near-term warming.

2. Operation Urja Suraksha

Purpose – A mission by the Indian Navy to protect energy-carrying ships (crude oil and LNG) bound for India.

Location – Primarily focused on the Strait of Hormuz, a vital maritime chokepoint between Iran and Oman.

Trigger – Initiated due to security tensions in the region involving Iran that could disrupt global energy supplies.

Importance – About one-fifth of the world's petroleum passes through this strait, making it essential for India's national energy security.

3. Ocean Warming and Humid Heatwaves

The Link – Warming oceans (specifically the Indian Ocean) are causing a 50–64% increase in large-scale humid heatwaves over land in South and West Asia.

The Mechanism – Warmer water leads to higher evaporation, which winds carry to land. High humidity prevents sweat from evaporating, making the heat feel much more dangerous (higher "wet-bulb" temperature).

Rossby Waves – These are large-scale atmospheric waves caused by Earth's rotation that help spread this heat and moisture over vast regions.

4. IED Food Security Index

The Index – Created by the International Institute for Environment and Development to measure food availability, access, nutrition, and resilience across 162 countries.

Global Finding – Rising temperatures (1.5°C to 2°C) will drastically lower food security and widen the gap between rich and poor nations.

India's Situation – India's baseline score is 5.31, which is below the global average (6.74). Projections show this will drop further as warming increases, threatening crop yields and food affordability.

5. Agniete Engine (Agnikul Cosmos)

What it is – A 3D-printed semi-cryogenic booster engine developed by the Indian startup Agnikul Cosmos.

Innovation – It is a single-piece structure, meaning it doesn't require thousands of individual parts like traditional engines.

Benefits – It can be manufactured in just one week using a high-strength alloy called Inconel. This allows for rapid, low-cost, and on-demand satellite launches.

Launch Vehicle – It powers the Agnibaan rocket, which can carry 100 kg payloads to Low Earth Orbit.

6. QS World University Rankings by Subject 2026

Overview – A global ranking that evaluates specific academic programs rather than whole universities.

India's Highlights – India saw a major jump, with 27 spots in the Top 50 global disciplines.

1. IIT-ISM Dhanbad – Ranked 21st globally in Mineral and Mining Engineering.
2. IIM Ahmedabad – India's top institution for Business and Management.
3. IIT Delhi – 36th in Engineering & Technology.

7. Paternity Leave

Current Status – India lacks a universal law for paternity leave. Currently, only Central Government employees get 15 days.

Supreme Court Intervention – The Court has urged the Union government to create a formal law recognizing paternity leave for all biological and adoptive fathers.

Significance – It aims to shift the "childcare is only the mother's job" stereotype and promotes shared parenting and better bonding.

8. Foreign Institutional Investors (FII)

Definition – Entities like hedge funds and pension funds that invest in markets outside their home country.

Recent News – FIIs recently sold over ₹1.12 lakh crore worth of Indian stocks in a single month—the most aggressive exit ever recorded in one month.

Regulations – In India, they must register with SEBI. They are often referred to as FPIs (Foreign Portfolio Investors), categorized based on their risk level.

