

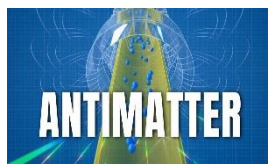
PRIME MINISTER DHAN-DHAANYA KRISHI YOJANA



- It is first of its kind focusing **exclusively on agriculture and allied sectors.**
- It aims to **enhance agricultural productivity, increase adoption of crop diversification** and sustainable agricultural practices, augment post-harvest storage at the panchayat and block levels, improve irrigation facilities and facilitate availability of long-term and short-term credit.
- **Implementation of Prime Minister Dhan-Dhaanya Krishi Yojana**
 - It will be implemented through **convergence of 36 existing schemes across 11 Departments**, other State schemes and local partnerships with the private sector.
 - Under this scheme 100 districts will be identified based on three key indicators of **low productivity, low cropping intensity, and less credit disbursement.**
 - The number of districts in each state/UT will be based on the share of Net Cropped Area and operational holdings. However, a minimum of **1 district will be selected from each state.**
 - **Committees will be formed at District, State and National level** for effective planning, implementation and monitoring of the Scheme.
 - A District Agriculture and Allied Activities Plan will be finalized by the District **Dhan Dhaanya Samiti**, which will also have progressive farmers as members.
 - The **District Plans will be aligned to the national goals** of crop diversification, conservation of water and soil health, self-sufficiency in agriculture and allied sectors as well as expansion of natural and organic farming.
 - **Monitoring:** Progress of the Scheme in each Dhan-Dhaanya district will be monitored on 117 key Performance Indicators through a dashboard on monthly basis.

- NITI will also review and guide the district plans. Besides, Central Nodal Officers appointed for each district will also review the scheme on a regular basis.
- As the targeted outcomes in these 100 districts will improve, the overall average against key performance indicators will rise for the country.
- **Significance:** The scheme will result in **higher productivity, value addition in agriculture** and allied sector, local livelihood creation and hence increase domestic production and achieving self-reliance (Atmanirbhar Bharat).

KEY FACTS ABOUT ANTIMATTER



- Antimatter is the same as ordinary matter except that it has the opposite electric charge.
- The antimatter particles corresponding to electrons, protons, and neutrons are called positrons (e^+), antiprotons (p), and antineutrons (n); collectively they are referred to as antiparticles.
- The electrical properties of antimatter being opposite to those of ordinary matter, the positron has a positive charge and the antiproton a negative charge; the antineutron, though electrically neutral, has a magnetic moment opposite in sign to that of the neutron.
- Matter and antimatter cannot coexist at close range for more than a small fraction of a second because they collide with and annihilate each other, releasing large quantities of energy in the form of gamma rays or elementary particles.
- Antimatter was created along with matter after the Big Bang. But antimatter is rare in today's universe.
- Humans have created antimatter particles using ultra-high-speed collisions at huge particle accelerators such as the Large Hadron Collider, which is located outside Geneva and operated by CERN (the European Organization for Nuclear Research).



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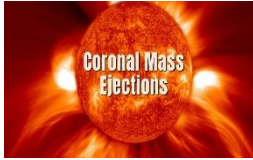
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CORONAL MASS EJECTIONS



- These are massive ejections of **magnetized plasma from the Sun's corona.**

How are they formed?

- They form **similarly to solar flares**—a result of the twisting and realignment of the sun's magnetic field, known as magnetic reconnection.
- When magnetic field lines “tangle” they produce **strong localized magnetic fields** which can break through the surface of the sun at active regions, subsequently generating CMEs.
- CMEs usually take **place around sunspot groups** and are often accompanied by a solar flare, though the two don't always occur in tandem.
- CMEs travel outward from the sun at speeds ranging from slower than 250 kilometers per second (km/s) to as **fast as 3000 km/s.**
- The fastest **Earth-directed CMEs** can reach our planet in as little as 15-18 hours.
- They **expand in size as they propagate away from the Sun**, and larger CMEs can reach a size comprising nearly a quarter of the space between Earth and the Sun by the time they reach our planet.
- CMEs, like solar flares, are most common during the solar maximum, a period in the sun's 11-year cycle of activity when the star is at its most active.

Impact on Earth: When such solar blasts are directed toward the Earth, they can **cause geomagnetic storms capable of disrupting satellite operations, communication systems and power grids.**

INDIA ACHIEVES CLEAN ENERGY TARGET AHEAD OF SCHEDULE

- As of June 30, 2025, India has achieved a major climate milestone: **50.1% of its installed electricity capacity now comes from non-fossil fuel sources.**
 - Back in 2015, non-fossil sources made up only 30% of India's capacity, which grew to 38% by 2020.
- This achievement comes five years ahead of its 2030 target under the Paris Agreement.
- The sharp increase over the last five years is largely due to solar and wind energy growth.
- India's total installed power capacity now stands at 485 gigawatts (GW). Out of this:
 - 185 GW comes from renewables like solar, wind, small hydro, and biogas.
 - 49 GW comes from large hydro projects.
 - 9 GW comes from nuclear energy.
- **Thermal power, mostly from coal and gas, now accounts for 242 GW or 49.9%.** This is a significant drop from 70% in 2015.
- India's clean energy transition is progressing faster than expected.

India's Power Grid Faces Challenges Due to Low Storage Capacity

- From April 2020 to June 2025, India added 95 GW of solar and wind power, making up 35% of the country's total installed capacity.
- However, this **fast growth in renewable energy has created grid stability issues** because India lacks enough power storage systems like batteries and pumped hydro.
- When renewable generation is high and demand is low, the extra power cannot be stored.
- For example, on May 30, 2024, India faced its peak electricity demand of 250 GW, but grid managers struggled as renewable supply was low and thermal plants couldn't fully cover the gap.
 - Similarly, in May 2025, erratic rains caused weak demand, making solar power prices drop to zero on some afternoons.

- These situations show how important storage is for absorbing extra renewable power and releasing it during peak demand. Without enough storage, grid instability increases and investors hesitate to fund new renewable projects.
 - By the end of 2024, India had less than 5 GW of storage capacity: 4.75 GW from pumped storage and just 110 MW from battery storage.

India Focuses on Energy Storage, But Progress Remains Slow

- In February 2025, the Central Electricity Authority (CEA) advised co-locating energy storage systems with new solar projects.
- The Ministry of Power also expanded its viability gap funding (VGF) scheme, now supporting 43 GWh of battery storage with ₹5,400 crore in funding.
- On the pumped hydro front, India plans to add 51 GW of capacity by 2032. To encourage investment, the government has extended the waiver on inter-state transmission system (ISTS) charges for storage projects until June 2028.
- Despite these policy moves, actual progress has been slow. Very few battery storage projects have been commissioned so far, even though bid prices have fallen.
- Challenges include high upfront costs, import duties, and strict domestic content rules. Approvals for pumped hydro projects are also delayed.
- China's dominance in the global battery supply chain adds another layer of risk for India, especially with China's restrictions on exporting key materials like rare earths.

Challenges Slowing India's Renewable Energy Growth

- India's renewable energy sector is shifting towards hybrid tenders combining solar, wind, and storage for better grid stability.
- However, around 30 GW of older projects still lack power purchase agreements (PPAs), creating cash flow issues for developers.
- Another major constraint is the limited supply of high-voltage direct current (HVDC) transformers, essential for long-distance power transmission.
- With rising global demand and few manufacturers, delays in transformer supply are affecting grid access and could slow down new capacity addition.

A TECTONIC SHIFT IN THINKING TO BUILD SEISMIC RESILIENCE

- India faces a serious earthquake risk because its tectonic plate keeps moving northwards, colliding with the Eurasian Plate at a rate of 4–5 cm per year.
- This movement forms the Himalayas and makes the region prone to a major earthquake of magnitude 8 or more, which could affect over 300 million people across northern India, Nepal, and Bhutan.

Delhi's Vulnerabilities

- **Delhi, located in Seismic Zone IV (high risk)**, is especially vulnerable.
- The city's ground acceleration factor is 0.24g, making it prone to strong tremors.
- Many of Delhi's buildings, including more than 5,000 high-rises, do not meet safety standards under the IS 1893:2016 Code, which requires earthquake-resistant features like ductile detailing and shear walls.
- The July 2025 tremors in Delhi, though moderate, showed how unprepared the city's 33.5 million residents are for a major earthquake.
- **Risk Not Limited to Delhi**
 - Seismic risk is not limited to Delhi. India's seismic zones cover large areas, from Zone II to Zone V.
 - The **northeast states — Manipur, Nagaland, and Mizoram — fall in Zone V**, the highest-risk category with a peak ground acceleration of 0.36g or more.
 - These areas have recently felt the impact of earthquakes in nearby Myanmar, such as the 7.7 magnitude quake in March 2025 and a 5.2 magnitude quake in May 2025.
 - The **Andaman and Nicobar Islands, also in Zone V**, face both earthquake and tsunami threats, as seen during the 2004 tsunami.
 - Even Sikkim felt tremors from a 5.7 magnitude quake in Tibet on May 12, 2025.

Urban Growth Increases Earthquake Risks: Why India Must Act Now

- Delhi's fast-paced urbanisation is making its earthquake risk even worse. Many older buildings in areas like East Delhi stand on weak, liquefaction-prone soil.
- Poorly designed high-rise buildings add to the danger during strong tremors.
- While the IndiaQuake app by the **National Center for Seismology (NCS)** can provide early warnings, public awareness and strict enforcement of building safety rules are still lacking.
- The Himalayan region, especially the gap between past major earthquakes like the Kangra quake in 1905 and the Nepal quake in 2015, is overdue for a big event.
- If it strikes, cities like Delhi could suffer massive damage.

Ways to Increase India's Preparedness

- To prepare, India must strictly enforce seismic safety standards, especially in high-risk zones.
- In Delhi, retrofitting older buildings with steel jacketing and using deep pile foundations can help reduce collapse risk. In Guwahati, located in Zone V, strict following of the **IS 1893:2016 code** is necessary.
- Builders must avoid constructing on floodplains to prevent soil liquefaction, and critical buildings should use base isolation techniques. In Bhuj, more retrofitting and community disaster response teams are needed.
- The Delhi Development Authority should speed up safety checks on buildings.
- At the same time, the NCS should expand its early warning systems to cover villages in Zone V areas.
- Strong rules and community readiness can make India's growing cities safer from future earthquakes.

SUPREME COURT ALLOWS SECRETLY RECORDED SPOUSAL CONVERSATIONS AS COURT EVIDENCE

- Spousal privilege, codified under **Section 122 of the Indian Evidence Act**, protects private communications between spouses during their marriage.
- This provision states that one spouse cannot be compelled, or permitted, to disclose any communication made by the other during the marriage, unless the communicating party consents or the case is between the married individuals themselves.
- Historically, this privilege has been upheld to preserve the sanctity of marriage and shield spouses from being forced to testify against each other, particularly in criminal cases.

Scope and Limitations in Divorce Cases

- Unlike criminal proceedings, divorce cases present unique legal challenges. When one spouse levels allegations such as cruelty, adultery, or mental harassment, they are permitted to present corroborative evidence, including letters, testimonies, and photographs.
- In recent years, **evidence in matrimonial cases has expanded to include electronic forms, like text messages, emails, and recorded conversations.**
- However, many High Courts have hesitated to admit secret recordings due to concerns over privacy and coercion, as well as the legality of how such material is obtained.

The Supreme Court's Landmark Ruling

- Setting aside a 2021 Punjab and Haryana High Court verdict, the apex court ruled that **secret recordings between spouses are legally admissible** in matrimonial disputes.
- The Court justified this by relying on an earlier 1973 case involving police-recorded evidence in a bribery case.
- It noted that as long as evidence is relevant, verifiable, and falls under statutory exceptions, it can be admitted even if it was secretly obtained.

Balancing Privacy with Fair Trial Rights

- This ruling raises fundamental questions about the **right to privacy**, which the Supreme Court recognised as a fundamental right in 2017.
- While critics argue that secret recordings infringe on individual privacy, the Court held that this right must be **balanced against the right to a fair trial**, particularly in cases of matrimonial disputes where truth and justice are paramount.
- The judges observed that if a marriage has reached a stage where spouses are snooping on each other, it indicates an already eroded trust and a fractured relationship.

Legal and Social Implications

- The ruling redefines how courts can interpret **Section 122 of the Indian Evidence Act**, clarifying that the provision is rooted in protecting marital sanctity, not privacy within marriage.
- With evolving societal norms and the emergence of digital evidence, the judgment reflects the judiciary's effort to adapt outdated laws to modern realities.
- While this decision promotes judicial truth-seeking, it also calls for future **legislative clarity** to define permissible boundaries of surveillance within domestic relationships, ensuring that justice does not come at the cost of consent and dignity.

Conclusion

The Supreme Court's ruling on the admissibility of secretly recorded spousal conversations marks a **turning point in Indian matrimonial jurisprudence**. It reorients the principle of spousal privilege in light of technological realities and competing constitutional rights.

While it strengthens the evidentiary tools available in divorce cases, it also underscores the need to address privacy concerns, gender disparities, and digital ethics in the courtroom.
