18th November Daily Study Content

Case Study : A precarious future for solar-powered development

Why in News?

On October 15, thousands of residents from Jharkhand's Dhanbad region and West Bengal's Purulia district jointly demonstrated against the proposed floating and land-based solar installations planned on the Panchet Dam reservoir.
Villagers worry about losing grazing spaces, fishing grounds, and the possibility of renewed displacement caused by land being taken for a large renewable energy venture led by the DVC–NTPC joint company (GVREL).

Relevance:

GS 2 – Governance

- Issues related to land acquisition, incomplete rehabilitation and failed resettlement processes.
- Multilevel federal tensions involving Centre–State–local bodies (DVC, NTPC, Jharkhand, WB).
- Role of community participation, Gram Sabha authority, and governance in Scheduled Areas.

GS 3 – Environment & Energy

- Renewable energy objectives, COP26 pledges, solar sector policies.
- Local conflicts arising during large-scale RE expansion; ecological and social consequences of floating solar plants.
- Concerns related to aquatic habitats and reservoir-based ecosystems.

GS 1 – Society

- Effect on Adivasi livelihoods, fishing groups, and cattle herders.
- Long-term history of displacement and unresolved land ownership concerns.

Panchet Dam

Constructed in 1959, it was the last of four multipurpose dams planned in the first Damodar Valley Corporation (DVC) phase.
Location:

- Northern bank: Dhanbad, Jharkhand
- Southern bank: Purulia, West Bengal

Objectives:
Designed for flood control along the Damodar—infamously known as the "Sorrow of Bengal"—along with irrigation and hydropower generation.

Past displacement (1950s–70s):

- 33,898 acres were taken over;

- 10,339 families were uprooted (DVC archival documents, 1957–76).
  Wide-scale submergence of settlements took place, with compensation disputes and unsettled land claims persisting for decades.

Upcoming Renewable Energy Projects

Floating Solar Project

Developer: Green Valley Renewable Energy Ltd. (GVREL), a joint venture between:

- NTPC Green Energy Ltd. – 51%
- DVC – 49%

Scale: 155 MW AC floating solar unit combined with ground-mounted PV systems.
Location: Reservoir surface along with adjacent land parcels.

Central Government Push

Aligned with India's COP26 Panchamrit goals:

- 500 GW non-fossil power by 2030
- 50% electricity generation from renewable sources by 2030

Accelerated development of solar capacity—including floating plants—has grown in areas where land availability is limited.

Stakeholder Concerns

Livelihood Disruptions

- Fishing groups (~2,500 persons across both states): restricted access to reservoir waters → direct daily income loss (₹500–800 on productive days).
- Grazing spaces: solar floats and fenced perimeters restrict cattle movement; villages already have limited green cover.

Fear of Renewed Displacement

People displaced during the dam's original construction fear another round of removal due to fresh land acquisition.

Land Rights Challenges

Many households still lack:

- Legal land documents
- Aadhaar
- Caste certificates
- Verified voter enrolments

Most settlements exist on "wasteland," leaving residents extremely insecure during acquisition.

Unfulfilled Past Promises

Commitments given during initial dam construction—land grants, rehabilitation, basic infrastructure—remain incomplete.
New RE projects have triggered renewed demands for unused DVC land return and long-pending connectivity (Bathanbari–Mahishnadi bridge).

Conflict and Governance Dimensions

Land Conflict Watch Observations

- 45% of RE land-acquisition cases lacked community consultation.
- 48% disputes involve common lands used by Adivasi, Dalit or pastoral groups.
- 29% of completed RE facilities continue to face agitations.
- Five major national RE projects remain stalled because of community pushback.

Why Such Disputes Escalate

- Solar projects require extensive land.
- Environmental and social impact assessments are often bypassed for speedy implementation.
- Regulatory overlap across DVC (central), state governments, and Panchayati Raj institutions.
- Weak social safeguards in RE infrastructure projects.

Environmental & Social Impact

- Floating solar blocks fishing routes and alters reservoir biodiversity.
- Shading suppresses plankton production → affects fish spawning cycles.
- Restricted reservoir access hinders tribal grazing, gathering, and traditional livelihood activities.

Governance Questions Raised

- Who gains from the solar expansion?
- Why are past rehabilitation obligations unresolved?
- Why are land rights not formalised before acquiring new land?
- Why were EIAs and Gram Sabha consent not ensured, especially in Scheduled Areas?

Government/Agency Position (Implicit)

- DVC and GVREL assert alignment with national RE goals.

- Floating solar is viewed as efficient in regions with limited land but large water bodies.
- No detailed official clarification available as per current reports.

What are Digital Personal Data Protection Rules?

Why in News?

On 14 November 2025, the Government notified the Digital Personal Data Protection (DPDP) Rules, 2025, operationalising most provisions of the DPDP Act, 2023.
This rollout includes establishing the Data Protection Board of India (DPBI), and enforcing frameworks for consent, data processing, and compliance.
A key dispute arises as the amendment to Section 8(1)(j) of the RTI Act, 2005 is now in effect, leading to protests from groups like MKSS and NCPRI.

Relevance

GS 2 – Polity & Governance

- Implementation of DPDP Act & Rules.
- Privacy vs transparency tension (RTI Section 8(1)(j)).
- Competence, authority and limitations of DPBI.
- Citizen–state interaction in consent, data management, and complaint mechanisms.

GS 3 – Cybersecurity

- Norms for breach disclosure, challenges in digital regulation.
- Protection of minors; online data ecosystems.

DPDP Act, 2023

Purpose

India's first full-spectrum personal data protection statute, comparable to GDPR (EU) or Singapore's PDPA.

Key Concepts

- **Data Fiduciary:** Organisation (public or private) handling personal data.
- **Data Principal:** Individual whose data is collected.
- **Significant Data Fiduciary:** Large entities under stricter regulatory duties.

Core Duties for Fiduciaries

- Implement security controls like encryption, access restrictions and audits.
- Use data strictly for lawful, specified purposes.
- Erase personal data once no longer required or after inactivity.

- Notify breaches promptly.

Rights of Individuals

- Informed consent through simplified summaries.
- Access to own data.
- Correction, deletion, and erasure rights.
- Right to withdraw consent and seek grievance resolution.

Children's Data

- Tighter limits on processing and targeted advertising.
- Parental access includes child's location data.

DPDP Rules, 2025 – Key Additions

- Detailed guidelines for consent notices, breach reporting, and data deletion.
- **Consent Manager Framework:**
  Enables users to manage permissions across platforms via a unified interface—akin to device-level permission dashboards.
- Mandatory Data Protection Officer (DPO) for SDFs, enforceable after 1 year.
- Companies receive up to 18 months for full compliance.
- Penalties vary from ₹10,000 to ₹250 crore depending on gravity and recurrence.

Institutional Mechanism

Data Protection Board of India (DPBI)

Activated under MeitY; consists of four members.
Roles:

- Conduct breach inquiries
- Impose penalties
- Oversee compliance

Major Controversy: RTI Act Amendment

What Changed?

Previously, Section 8(1)(j) exempted personal information **unless** public interest justified disclosure.
The DPDP Act removed the "public interest override."
This broadens grounds for rejecting RTI applications.

Why Activists Oppose It?

- Removes a vital openness safeguard.
- Social audit tools (ration lists, muster sheets, work records) risk being labelled private.
- Could protect officials from scrutiny in corruption-related cases.
- Undermines grassroots transparency campaigns led by MKSS and NCPRI.

Government Position

Despite opposition, the amendment was enforced.
A separate amendment to the IT Act, 2000 is pending.

Wider Governance Issues

- Increased official discretion in identifying "personal information."
- Fear of excessive classification.
- Debate centres on reconciling privacy, public interest, and accountability.
- Questions about whether DPBI's placement under MeitY guarantees independence.

Comparison with GDPR

Similar: Consent, minimisation, erasure rights, fiduciary obligations.
Different:

- No mandatory localisation.
- Regulator not fully independent.
- Broad government exemptions.
- Narrow definition of sensitive data.

Implementation Status

Already in force:

- DPBI functioning
- RTI amendment
- Initial phase of Consent Manager system

Within 18 months:

- Company-wide compliance
- DPO appointments
- Comprehensive breach reporting

How is the global precision medicine market evolving?

Why in News?

An expert review by Shambhavi Naik (Takshashila Institution) examined India's progress, gaps, and future potential in precision biotherapeutics.
The discussion coincides with rapid global advances in gene editing, CAR-T, mRNA platforms, and India's biotechnology roadmap under the DBT.

Relevance:

GS 3 – Science & Technology

- CRISPR gene editing, mRNA-based drugs, cell and biologic therapies.
- ATMP regulatory challenges; biotech innovation ecosystem.
- Genomic missions like GenomeIndia and IndiGen.

GS 2 – Health

- India's NCD load
- Innovation in healthcare, ethical issues, access and affordability.

What Are Precision Biotherapeutics?

Medical treatments tailored to an individual's unique molecular, cellular, genetic, or proteomic attributes.
They aim to correct underlying disease mechanisms rather than manage outward symptoms.

Core Technologies

- **Genomic & proteomic profiling:** Identifies mutations/protein dysfunctions.
- **Gene editing:** CRISPR-based gene correction for conditions like blood disorders.
- **mRNA / nucleic acid therapies:** Reprogram cells to produce or silence specific proteins.
- **Biologics & monoclonal antibodies:** Targeted responses against disease-causing proteins.
- **AI-driven drug design:** Predicts interactions and accelerates discovery.

Why India Needs Precision Biotherapeutics

- 65% of India's mortality arises from NCDs (cancer, diabetes, cardiovascular ailments).
- India's genetic diversity means foreign drugs often show limited efficacy.
- Facilitates preventive, predictive and tailored medical care.
- Leverages India's genomic datasets: GenomeIndia, IndiGen, disease-mapping studies.
- Addresses India-specific genetic variations and disease responses.

Where India Stands: Current Progress

Government & Research Initiatives

- DBT lists precision biotherapeutics as a national biotech priority.
- Major institutions: IGIB, NIBMG, THSTI.
- Focus on mapping genetic diversity and disease susceptibility.

Private Sector Contributions

- Biocon Biologics, Dr Reddy's: biosimilars, monoclonal antibodies.
- Immuneel Therapeutics: immuno-oncology.
- Bugworks: innovative antibiotics.
- Akrivia Biosciences: cancer diagnostics.
- miBiome, 4baseCare: precision oncology.
- ImmunoACT: India's first domestic CAR-T therapy.

Challenges for India

Regulatory

- Absence of dedicated gene editing, cell therapy and mRNA regulations.
- Ambiguous scope of permissible therapeutic use.
- Inconsistent ethics frameworks across institutions.

Manufacturing & Infrastructure

- Limited ATMP and biologics manufacturing.
- Heavy dependence on imported raw materials and equipment.

Cost & Accessibility

- Precision treatments remain extremely costly and limited to wealthy urban patients.
- Insurance and public-sector gaps.

Data Governance Issues

- Sensitive nature of genetic data not fully protected.
- DPDP Act inadequately covers genomic privacy.
- Risks of discrimination, profiling, and misuse.

India's Opportunities

- Global precision medicine market may exceed $22 billion by 2027.

- India possesses skilled scientific talent, strong IT analytics, and potential for low-cost biotech manufacturing.
- Can become a major centre for affordable precision therapies and biosimilars.
- Export potential in AI diagnostics and cell therapy services.
- Opportunity to frame balanced regulations ensuring ethics, innovation, and affordability.

Article 32 enables citizens to approach the SC for fundamental rights, says CJI Gavai

Why in News?

CJI B.R. Gavai, in a lecture on "India and the Living Indian Constitution at 75 Years," emphasised the roots and role of Article 32.
The remarks revived national debate on constitutional rights, reform movements, and misuse of historical narratives.

Relevance:

GS 2 – Polity

- Enforcement of fundamental rights; writ jurisdiction.
- Article 32 within the Basic Structure.
- Constitutional morality, judiciary's function, Ambedkar's framework.
- Emergency related provisions and remedies.

What is Article 32?

A guaranteed constitutional mechanism for enforcing fundamental rights.
Allows individuals to directly petition the Supreme Court for rights violations.
Empowers the Court to issue five writs: Habeas Corpus, Mandamus, Prohibition, Certiorari, Quo Warranto.
Called the "heart and soul" of the Constitution by Dr. Ambedkar.

Ambedkar's Vision (noted by CJI Gavai)

- Rights without remedies are ineffective → Article 32 was introduced to give enforceable power.
- The 1946 Objective Resolution lacked enforceability; Article 32 filled this gap.
- Ambedkar envisioned a dynamic Constitution with Article 368 enabling evolution.
- Underpinned by justice, liberty, equality, and fraternity.

Advanced Constitutional Analysis

- Article 32 is part of the Basic Structure (L. Chandra Kumar, 1997).

- It cannot be suspended except as permitted under Article 359 during Emergency.
- It functions as both a right and a remedy.
- CJI stressed understanding Constituent Assembly debates to uphold constitutional morality.

Present Issues Emphasised by CJI Gavai

- Need to protect the Constitution from political distortions.
- Legal fraternity and citizens must engage deeply with foundational debates.
- Constitutional amendments continue to trigger disputes.
- Importance of pursuing Ambedkar's agenda of social and economic equality (via DPSPs).

Senkaku Islands

Why in News?

China's Coast Guard carried out a "rights enforcement patrol" in waters surrounding the Japan-administered Senkaku Islands (China calls them Diaoyu).
The move followed Japanese PM Sanae Takaichi's warning that a Chinese attack on Taiwan could provoke a Japanese military reaction.

Relevance

GS 2 – International Relations

- China–Japan territorial disputes; US–Japan alliance (Article 5).
- Taiwan–China tensions; Indo-Pacific dynamics.
- Grey-zone conflict and Coast Guard militarisation.

GS 3 – Security

- Maritime security, freedom of navigation, SLOC vulnerabilities.
- Implications for India's Indo-Pacific and Quad engagements.

Where Are the Senkaku Islands?

- Situated in the East China Sea, northeast of Taiwan and southwest of Okinawa.
- Unpopulated but strategically important for regional geopolitics.
- Administered by Japan; claimed by China and Taiwan.
- Near rich fish stocks, possible hydrocarbons, and major shipping lanes.

Territorial Claims

Japan (Senkaku)

- Claims control since 1895; integrated as unclaimed land.
- Administers them after US handover in 1972.

China (Diaoyu)

- Claims historical ownership from Ming dynasty.
- Says Japan seized the islands during imperial expansion.

Taiwan (Tiaoyutai)

- Supports historical claims similar to China's.

Why Senkaku Is Strategically Important

- Critical arena of Japan–China rivalry; triggers US–Japan treaty consequences.
- Part of the First Island Chain vital to China's maritime strategy.
- Proximity to Okinawa's major US bases.
- Impacts any Taiwan-related escalation.
- Influences key sea lanes of communication.

Recent Developments

A Chinese Coast Guard vessel entered Senkaku's territorial waters.
China described this as lawful protection of its sovereignty.
This fits a pattern: China routinely employs Coast Guard—not Navy—to maintain pressure while avoiding open military conflict.
Japan shadows these vessels using its own Coast Guard.

Why China Has Intensified Pressure

- Reaction to Japan's statement supporting Taiwan's defence.
- Heightened PLA activity around Taiwan (air and naval presence).
- Testing commitments under the US–Japan Security Treaty, including Article 5 coverage.

Japan's Response

- Views incursions as sovereignty violations.
- Strengthening Coast Guard and Self-Defense Forces in Okinawa and Ryukyu.
- Enhancing interoperability with US forces.
- Taiwan contingencies now central to national security strategy.

US Position

- Recognises Japan's administrative control but not sovereignty.
- Article 5 obligates defence of Japan if Senkaku is attacked.
- Hence any missteps risk US–China confrontation.

Wider East Asian Security Implications

- Deepens China–Japan rivalry.
- Raises chances of accidents in contested waters.
- Moves Japan further away from pacifism.
- Reinforces US–Japan–Taiwan alignment.
- Encourages China's use of paramilitary maritime units for gradual assertion.

Implications for India

- Reinforces Indian concerns over China's assertive behaviour.
- Strengthens Indo-Japan collaboration in Indo-Pacific affairs.
- Justifies deeper Quad cooperation on maritime monitoring and rule-based systems.

Coronal Mass Ejection (CME) detected on another star

Why in News?

Astronomers employing the LOFAR (Low-Frequency Array) radio network have, for the first time, identified a coronal mass ejection from a star other than the Sun.
This CME erupted from red dwarf StKM 1-1262, approximately 133 light years away.
The finding, published in *Nature*, represents a major advance in stellar space weather research and exoplanet habitability studies.

Relevance:

GS 3 – Science & Technology

- Stellar space weather, exoplanets, magnetic activity.
- LOFAR's role, key astronomical advancements.
- Effects of CMEs on atmospheres, satellites, and communications.

What Is a Coronal Mass Ejection?

A colossal expulsion of charged particles and magnetic fields from a star's outer atmosphere.
On the Sun:

- Can disturb satellites, GPS, and radio systems.
- Produce auroras; Nov 12 auroras reached as far as Tennessee and New Zealand. Previously, only the Sun's CMEs had been observed reliably because detecting faint radio signals from distant stars is extremely challenging.

The Breakthrough

- LOFAR has been gathering low-frequency radio observations since 2016.
- Though intended for black-hole studies and energetic cosmic events, its wide field captured many stars.
- Re-examining its archives revealed a one-minute explosive emission from 2016.
- Confirmed as the first radio identification of a CME on a non-solar star.
- The event was nearly 10,000 times stronger than typical solar CMEs.

About the Star: StKM 1-1262

- A red dwarf with 10–50% of the Sun's mass.
- The most common host type for Earth-sized exoplanets.
- Known for strong magnetic fields and violent stellar storms.

Scientific Significance

Breakthrough for Stellar Space Weather

- Opens exploration of how other stars influence surrounding planetary systems.
- Enables magnetic activity tracking through sustained radio measurements.

New Observational Method

- Proves archived radio data can detect extreme stellar events.
- Helps decode stellar magnetic cycles analogous to the Sun's 11-year cycle.

Implications for Exoplanet Habitability

Atmospheric Loss

Red dwarf CMEs can strip atmospheres of planets in close orbits—common around such stars. Loss of atmosphere means:

- Water instability
- No UV protection
- Climate collapse

This drastically lowers the probability of life around red dwarfs.

Re-evaluating Habitability Zones

Many planets (e.g., TRAPPIST-1) previously considered habitable orbit red dwarfs.
With evidence of intense stellar CMEs:

- These environments may be more hostile than thought.
- Stronger planetary magnetic fields would be necessary for survival.

Astronomy Relevance

- First direct confirmation that stars beyond the Sun emit CMEs.
- Refines models of star–planet relations, atmospheric retention, magnetic shielding, and planetary climate evolution.

Future Implications for Exoplanet Research

- Radio detection can be scaled to thousands of nearby stars.
- Helps prioritise promising exoplanets for life-detection missions.
- Supports efforts of JWST, PLATO and ARIEL in examining exoplanet atmospheres.

Cryptocurrency and Dirty Money

Why in News?

An investigative collaboration by *The Indian Express*, ICIJ, and The Coin Laundry Project uncovered how cryptocurrencies are increasingly used for cross-border laundering, replacing classic offshore havens.
Tracking revealed laundering routes from India to Dubai, China, and Cambodia through exchanges and OTC brokers.
The findings expose misuse of mule accounts, fake wallets, P2P channels, and unregulated crypto pathways in hawala-like operations.

Relevance:

GS 3 – Economy & Security

- Crypto-based money laundering; digital hawala.
- PMLA implications; FIU and ED functioning.
- Fraud networks in Cambodia and Chinese linkages.
- FATF standards, AML/CFT global rules.

GS 2 – Governance

- Cybercrime regulatory gaps; global rulebook need.

- Identity verification, consent and anonymity issues.

GS 3 – Internal Security

- Crypto as a tool in sextortion, betting, cyberfrauds, loan apps.
- Transnational organised crime.

What Is Crypto Money Laundering?

Using digital coins (BTC, USDT, ETH) to mask illicit fund origins.
Occurs through anonymous wallets, mixing services, P2P markets, and decentralised exchanges.
Functions like hawala but is:

- Quicker
- Harder to detect
- Borderless
- Technology-driven, erasing trails

How Crypto Is Used for Laundering (as per investigation)

1. Victims lose money → deposited in mule accounts.
2. Funds pooled into operator-controlled accounts.
3. Operators utilise:
    - OTC crypto desks
    - P2P transfers
    - Unhosted wallets
    - Foreign exchanges
4. Crypto moved to Dubai/China/Cambodia → converted to local currency → reintroduced as "clean" money.

USDT (Tether) is preferred due to stability and speed.

Key Findings of The Coin Laundry Project

- Over $12 billion laundered globally through crypto-linked fraud (ICIJ estimate).
- India emerging as a significant hub for pig-butchering, investment scams and crypto arbitrage.
- Crypto enables hidden cross-border layering without physical money transfers.
- Students, migrant workers, and unsuspecting persons exploited as mule operators.
- Several Indian exchanges flagged for loose KYC and false identity usage.

Why Criminal Networks Prefer Crypto

- Absence of central authority.
- Addresses are pseudonymous.
- Easy structuring through microtransactions.
- Instant global transfers at negligible costs.
- Difficult tracing when mixers, privacy tokens, TOR/VPN usage is involved.

Case Studies in Report

- Multiple Indian entities allegedly routed funds via USDT to Chinese operators.
- Fraud rings in Jharkhand, Maharashtra, Telangana deployed crypto to escape hawala crackdowns.
- Some networks linked to ₹1,000 crore+ cyber-fraud routes involving Cambodia scam centres.

Agency Findings (ED, FIU, State Police)

- Crypto forms part of the layering in scams, betting, extortion and lending apps.
- Identified pathways:
  India → Dubai (OTC desks) → China (USDT wallets) → Cambodia (scam hubs)
- P2P traders functioning as informal hawala brokers.
- FIU issued notices to multiple exchanges for AML failures.

Regulatory Issues in India

- Crypto is unregulated but not banned.
- AML norms brought under PMLA (2023), but enforcement is restricted because:
  - No licensing regime
  - Unhosted wallets outside jurisdiction
  - Overseas exchanges difficult to regulate
- India proposed global crypto cooperation at G20 (2023) but progress slow.

Implications for India

- Surge in cybercrime: crypto enables instant overseas payouts.
- Economic threat: illicit capital flight via unregulated routes.

- Internal security risk: scam networks in Cambodia/Myanmar targeting Indians.
- Banking vulnerability: widespread mule accounts.
- Diplomatic issues: rescue of Indians trapped in foreign scam centres.

Global Context

- FATF warns of ML/TF threats from crypto.
- US, EU, Singapore tightening norms for:
    - Mandatory KYC
    - Travel Rule enforcement
    - Licensing of mixers and service providers
- Privacy coins (Monero, Zcash) complicate oversight.

Way Forward

- Create exhaustive crypto regulation for exchanges, wallets, and stablecoins.
- Ensure full FATF Travel Rule implementation for Indian crypto entities.
- Mandatory KYC–PAN linkage for high-value transfers.
- Licensing rules for OTC desks.
- Upgrade FIU and ED digital forensics to track blockchain activity.
- Advocate coordinated international controls on unregulated exchanges and scam centres.

18th November Daily MCQs:

Q1. The Panchet reservoir floating solar project has prompted local protests mainly because it is likely to:
A. Increase tidal flooding downstream.
B. Restrict access to grazing and fishing zones and trigger fresh land acquisition.
C. Require desalination of reservoir water for panels.
D. Reduce hydropower generation due to evaporation.
Answer: B

Q2. Consider the following about the DPDP Rules, 2025:

1. They established a Consent Manager ecosystem to let users control data permissions across services.
2. They made the Data Protection Board of India (DPBI) fully independent of any ministry.
3. They put in place phased timelines for firms to comply, including DPO requirements for Significant Data Fiduciaries.
   Which of the statements is/are correct?

A. 1 only
B. 1 and 3 only
C. 2 and 3 only
D. All three
Answer: B

Q3. The amendment to Section 8(1)(j) of the RTI Act (as implemented with DPDP rules) primarily does which of the following?
A. Expands disclosure of officials' personal data in all cases.
B. Removes the "public interest" override for disclosure of personal information.
C. Makes the RTI Act applicable only to central government offices.
D. Requires biometric authentication for all RTI requests.
Answer: B

Q4. Precision biotherapeutics typically rely on which one of the following core technologies?
A. Bulk chemical synthesis of small-molecule analgesics.
B. Genomic and proteomic profiling to tailor therapies.
C. General population-level vaccination strategies only.
D. Traditional Ayurveda formulations.
Answer: B

Q5. Article 32 of the Indian Constitution enables a citizen to approach the Supreme Court directly for enforcement of fundamental rights. Which of the following writs is *not* among those the Supreme Court can issue under Article 32?
A. Habeas Corpus
B. Mandamus
C. Certiorari
D. Injunction
Answer: D

Q6. The Senkaku (Diaoyu) Islands dispute is strategically significant primarily because:
A. The islands host major civilian populations that control regional voting blocs.
B. Control of the islands affects access to nearby SLOCs, fishing grounds and potential hydrocarbon reserves.
C. The islands are the only source of fresh water for Okinawa.
D. They are the headquarters for the UN regional maritime office.
Answer: B

Q7. The LOFAR detection of a coronal mass ejection (CME) from a red dwarf star implies that:
A. CMEs are unique to the Sun and cannot occur on other stars.
B. Stellar CMEs can be orders of magnitude stronger than typical solar CMEs and affect exoplanet habitability.
C. Red dwarfs lack magnetic activity and cannot host CMEs.

D. Radio telescopes are unsuitable for monitoring stellar activity.
Answer: B

Q8. According to investigative reports on crypto money-laundering, which of the following features makes cryptocurrencies attractive to launderers?
A. Mandatory full-name public registration of every wallet.
B. Pseudo-anonymity, cross-border instant transfers, and use of OTC/P2P channels.
C. Complete prohibition of stablecoins.
D. Universal centralised exchange control by a single global regulator.
Answer: B

Q9. Which one of the following is a likely environmental effect of large floating-solar installations on reservoirs?
A. Increased plankton growth due to enhanced sunlight penetration.
B. Reduced fish breeding due to shading and altered aquatic productivity.
C. Elimination of methane emissions from reservoir sediments.
D. Permanent rise in reservoir water temperature by 10°C.
Answer: B

Q10. Which of the following is a correct pairing?
A. DPBI — an independent constitutional body like the Election Commission.
B. Consent Manager — a user-facing system allowing centralized management of data permissions.
C. Article 32 — pertains to the Right to Property only.
D. TRAVEL Rule — a mechanism used exclusively for space mission crew travel.
Answer: B

Mains: Analyse how displacement and subsequent rehabilitation efforts have affected tribal communities in India, and propose strategies that can ensure development is both inclusive and sustainable. (250 words)