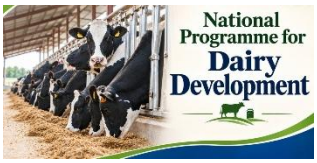
# Current Affairs - 02 November 2026

## NATIONAL PROGRAMME FOR DAIRY DEVELOPMENT




- It is a **Central Sector Scheme** implemented by the **Department of Animal Husbandry and Dairying (DAHD)**, Government of India.
- It was **launched in 2014** and has been restructured/ realigned in July 2021 for implementation from 2021-22 to 2025-26 **to strengthen dairy infrastructure and dairy cooperative systems.**
- It aims to **enhance quality of milk and milk products** and increase share of organized procurement, processing, value addition and marketing.
- **Nodal Ministry:** Ministry of Fisheries, Animal Husbandry & Dairying
- **Components of National Programme for Dairy Development**
    - **Component A:** It focuses on **strengthening of infrastructure for quality milk testing** equipment as well as primary chilling facilities for State Cooperative Dairy Federations/ District Cooperative Milk Producers' Union/SHGs/Milk Producer Companies/Farmer Producer Organizations.
    - **Component 'B': It** aims to **increase sale of milk and dairy products** by increasing farmer's access to organized market, **upgrading dairy processing facilities** and marketing infrastructure and enhancing the capacity of producer owned institutions.

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## WHAT IS PROJECT 18A?




- It is the **Indian Navy's Next-Generation Destroyer (NGD) programme.**
- The proposed programme aims to develop a new generation of **stealth-guided missile destroyers.**

- Conceived as a **successor to the Visakhapatnam-class (P-15B) destroyers,** the P-18 class destroyers are engineered to counter emerging threats — from anti-ship ballistic missiles to submarine warfare.
- It is **overseen** by the **Indian Navy's Warship Design Bureau (WDB)** in collaboration with **Mazagon Dock Shipbuilders Limited (MDL)** and **Garden Reach Shipbuilders & Engineers (GRSE).**

**Features**:

- The P-18 will rank among the **largest destroyers ever operated by the Indian Navy,** significantly larger than the Visakhapatnam-class destroyers.
  - Under **international classification, warships above 10,000 tonnes** fall into the **cruiser category** — a segment that India currently does not possess.
  - Project 18 will mark **India's entry into this class** of warships.
- The warships are expected to have nearly **75% indigenous content.**
- It features **Integrated Electric Propulsion (IEP).**
- **Cruising Range: 4,500 nautical miles** at 18 knots; endurance **45+ days.**
- One of the most notable features of the design is the planned incorporation of up to **144 vertical launch system (VLS) cells** capable of **firing a diverse range of missile** systems.
- Anti-submarine warfare (ASW) capabilities include **twin triple-torpedo launchers (Varunastra heavy torpedoes),** rocket-assisted ASW mortars, and advanced towed-array sonar systems.
- The ships will be able to **carry unmanned underwater vehicles** and **kamikaze drone**s, used for surveillance, detecting mines, and attacking submarines.
- It is also expected to feature an advanced sensor and **radar architecture centred on long-range multi-domain tracking systems** capable of **detecting** and tracking **targets** at distances of up to **500 kilometres.**

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## BINANCE HACK - CYBERSECURITY RISKS, CRYPTOCURRENCY REGULATION AND INVESTOR PROTECTION

- Binance is a major global cryptocurrency exchange that facilitates the trading and transfer of digital assets.
- The recent cyberattack exposed vulnerabilities in its operational security infrastructure and resulted in the unauthorised withdrawal of cryptocurrency assets.
- Binance has temporarily paused deposits and withdrawals while conducting security checks. Deposits were subsequently restored.
- The exchange later estimated the losses at approximately **$6.3 billion** and initiated efforts to freeze and recover the stolen assets.

**How the Hack Took Place**

- According to Binance's initial investigation, the attack may have involved a compromised laptop belonging to a DevOps engineer.
- The attacker allegedly used access to a service container to submit unauthorised withdrawal transactions.
- Binance's co-CEO maintained that the incident was complex and did not involve the misuse of a single engineer's permissions or a simple one-click vulnerability.
- The company subsequently disclosed additional points of breach. However, it stated that there was no evidence of cryptocurrency wallet private keys being leaked.

**Implications for the Cryptocurrency Sector**

- **Cybersecurity and Operational Vulnerabilities**
  - The alleged compromise of an employee's laptop highlights the risks associated with internal access privileges, endpoint security and third-party infrastructure.
- **Investor Protection and Regulatory Oversight**
  - Cryptocurrency markets operate under varying regulatory frameworks across jurisdictions. Investors may have limited legal protections and face difficulties recovering funds when exchanges experience cyberattacks or operational failures.

**Key Challenges in Cryptocurrency Security**

- The incident highlights several structural concerns affecting the digital-asset ecosystem:
  - **Centralised vulnerabilities:** Large exchanges hold and process substantial volumes of digital assets, making them attractive targets for cybercriminals.
  - **Insider and access risks:** Compromised employee devices and excessive access privileges can create entry points for attackers.
  - **Cross-border investigations:** Cryptocurrency transactions can move rapidly across international jurisdictions, complicating the tracing and recovery of stolen assets.
  - **Regulatory fragmentation:** Differences in national laws and enforcement mechanisms create gaps in oversight.
  - **Limited investor recourse:** Investors may face uncertainty over compensation, liability and dispute resolution following major security incidents.

**Way Forward**

- Strengthening cryptocurrency security requires coordinated action by exchanges, regulators, technology providers and law enforcement agencies.
- **Stronger access controls:** Exchanges should adopt multi-factor authentication, least-privilege access and continuous monitoring of employee devices and systems.
- **Independent security audits:** Regular penetration testing, vulnerability assessments and third-party audits can help identify weaknesses before they are exploited.
- **Transaction monitoring:** Exchanges should strengthen real-time detection of unusual withdrawals and suspicious blockchain activity.
- **Regulatory cooperation:** Cross-border information-sharing and coordinated investigations are essential for tracing stolen digital assets.
- **Investor safeguards:** Exchanges should maintain transparent asset-reserve disclosures, robust recovery mechanisms and clear compensation policies.
- **Incident transparency:** Timely disclosure of breaches and detailed technical investigations can help restore investor confidence and improve security standards.

## AN ENERGY REVOLUTION IN THE MAKING

- India's transition towards **renewable energy** is transforming its economy, energy security, and environmental sustainability.
- With **solar capacity** increasing from 2.8 GW in 2014 to approximately **171 GW**, India is advancing towards Viksit Bharat by 2047 and its target of 500 GW of non-fossil fuel capacity by 2030.

**Achievements in India's Solar Energy Revolution**

- **Expansion of Rooftop Solar**
  - The PM Surya Ghar Muft Bijli Yojana has enabled over 65 lakh households to adopt **rooftop solar**, with more than 21 lakh receiving zero electricity bills.
- **Falling Solar Power Costs**
  - Solar electricity costs have declined from approximately ₹8–₹10 per unit in 2014 to as low as ₹2.15.

**Four Pillars of India's Renewable Energy Expansion**

- **Capital and Investment**
  - Achieving 500 GW of non-fossil capacity requires **approximately $220 billion in investment.**
- **Domestic Manufacturing**
  - India must expand domestic production of solar cells, wafers, and polysilicon to reduce import dependence.
- **Energy Storage and Grid Modernisation**
  - India may require 236 GWh of battery storage by 2031–32. Batteries, pumped-storage hydropower, and smart grids can balance intermittent solar generation.
- **Human Capital and Green Employment**
  - Rooftop solar generates employment for engineers, electricians, installers, and maintenance workers. It can create green jobs for youth, **expand rural employment**, and increase women's participation.

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**India's International Leadership in Renewable Energy**

- **G20 and BRICS Cooperation**
  - India has promoted renewable energy cooperation through the **G20 and BRICS.**
  - Initiatives supporting solar photovoltaics, smart grids, and storage can encourage technology sharing, investment, and **manufacturing partnerships**, particularly among developing countries.
- **International Solar Alliance**
  - The International Solar Alliance (ISA), launched by India and France in 2015, promotes global solar deployment.

**Bharat Renewable Energy Summit and Global Cooperation**

- The Bharat Renewable Energy Summit and Expo 2026, scheduled for November 2–5, provides a platform for cooperation on solar power, green hydrogen, and energy storage.
- Solar irrigation, reliable electricity, and **reduced fuel-import dependence** can strengthen developing countries' energy and food security.
- This reflects Vasudhaiva Kutumbakam, the principle of the world as one family.

**Challenges and the Way Forward**

- India faces challenges involving financing, import dependence, inadequate storage, transmission constraints, and uneven rooftop solar adoption.
- Financially **sustainable distribution companies**, predictable policies, and stronger domestic supply chains are essential.
- Affordable financing, environmental safeguards, and **responsible water management** must accompany expansion.

**Conclusion**

- India's solar transformation is creating **economic opportunities** while strengthening energy security and reducing electricity costs. Achieving its renewable energy ambitions requires investment, manufacturing, storage, infrastructure, and skilled human resources.
- By combining **domestic innovation** with international cooperation, **India can advance towards Viksit Bharat by 2047** and contribute to a sustainable global energy future.

## DRAFT NATIONAL STEEL POLICY: VISION 2047 - FROM PROTECTION TO GLOBAL COMPETITIVENESS

**India's Steel Industry - Growth and Profitability:**

- **Impressive production growth:**
  - India has emerged as the world's **2nd-largest** steel producer, with production reaching 170 Mt.
  - Its share in global steel production has increased from less than 5% in 2000. However, India remains significantly behind **China**, which produces 961 Mt.
- **High profitability:**
  - The average EBITDA-to-sales ratio of the Indian steel industry during 2000–2025 was approximately **15%**, around 3–4 percentage points higher than the rest of Indian manufacturing.
  - The profitability of India's three largest steel firms was also 3–4 percentage points higher than that of their major global counterparts during 2015–2024.
  - But, high profitability may reflect protection and policy advantages rather than superior efficiency.

**Sources of Protection and Their Economic Costs:**

- **Cheap domestic iron ore:**
  - A 30% export duty on iron ore containing more than 58% iron keeps domestic prices approximately 30–40% below global prices.
  - This effectively transfers value from mineral resources and mining regions to steel manufacturers. Low domestic prices reduce incentives for exploration and mining, leading to economic losses in mineral-rich regions.
- **High import tariffs and non-tariff barriers:**
  - A 7.5% import tariff, combined with an 11.5% safeguard duty, results in an effective duty of approximately 18%. Comparable tariffs in ASEAN countries are only 3–4%.

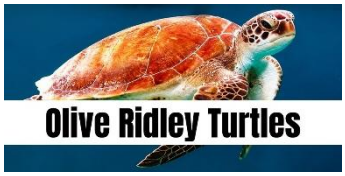
**Reforms for Global Competitiveness:**

- **Calibrated liberalisation to strengthen export competitiveness:**
  - Reduce import duties over five years to ASEAN levels.
  - Introduce greater competition to encourage productivity, innovation and cost reduction.
- **Consider strategic privatisation:**
  - The profitability gap between private and public-sector steel firms suggests potential efficiency and governance problems in public-sector enterprises.
  - Privatisation of selected SAIL plants could improve efficiency, **corporate governance** and fiscal outcomes while retaining strategic oversight.
- **Overhaul mining policy:**
  - India has explored only around 10% of its obvious geological potential.
  - The existing mining regime discourages exploration because discoveries must be surrendered for future auctions, with discoverers receiving limited incentives.
  - Suggested reforms -
    - Adopt exploration-friendly policies followed by **Australia** and other mineral-rich countries.
    - Provide adequate incentives and predictable rights to mining explorers.
    - Accelerate new mine development.
    - Increase mining's contribution to GDP and improve resource utilisation.

**Conclusion:**

- India's steel industry has achieved remarkable growth since Jamsetji Tata established the foundations of modern steel production in 1912, overcoming colonial scepticism about India's industrial capabilities.
- The Draft National Steel Policy: Vision 2047 must build upon this legacy by promoting efficiency, technological innovation, competitive input markets and export orientation.
- A phased transition from protection-led profitability to productivity-led competitiveness is essential for sustainable industrial growth.

## OLIVE RIDLEY TURTLE




- It is the **smallest and most abundant** of all sea turtles found in the world.
- It gets its name from the **olive green colouration of its carapace** (shell).
- It is best known **for its unique mass nesting, called Arribada**, where thousands of females come together on the same beach to lay eggs.

**Distribution of Olive Ridley Turtle**

- They are mainly found in the warm waters of the **Pacific, Atlantic, and Indian oceans.**
- **Odisha's Gahirmatha Marine Sanctuary** is known as the world's largest rookery (a colony of breeding animals) of sea turtles.

**Features of Olive Ridley Turtle**

- They are solitary, preferring the open ocean.
- **Diet:** They are **omnivorous,** meaning they feed on both plants and animals.
- These turtles spend their entire lives in the ocean, and migrate thousands of kilometers between feeding and mating grounds in the course of a year.

**Conservation Status of Olive Ridley Turtle**

- **IUCN Red List:** Vulnerable
- **CITES:** Appendix I
- **Wildlife Protection Act, 1972:** Schedule 1.

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