

INDIA-EU JOINT INITIATIVE ON EV BATTERY RECYCLING

Key Highlights:

- **Launch Date:** May 5, 2026.
- **Total Budget:** €15.2 million (approx. ₹169 crore).
- **Framework:** India-EU Trade & Technology Council (TTC) - Working Group 2 (Green and Clean Energy Technologies).
- **Funding Agencies:** The EU portion is funded by the **Horizon Europe** programme; the Indian portion is supported by the **Ministry of Heavy Industries (MHI)**.

1. PRIMARY OBJECTIVES

- **Resource Security:** Ensuring a steady supply of critical raw materials like **Lithium, Graphite, and Cobalt**.
- **Circular Economy:** Accelerating the transition to a circular economy by minimizing waste and maximizing material reuse.
- **Bilateral Ties:** Strengthening the strategic partnership between India and the European Union through green innovation.

2. CORE AREAS OF FOCUS

The initiative invites proposals centered on four technical pillars:

1. **High Recovery Rates:** Developing technologies to extract maximum minerals from spent batteries.
2. **Mixed Chemistry Handling:** Creating processes capable of recycling diverse battery types and chemistries.
3. **Logistics & Inclusion:** Building digitalized collection systems that integrate the **informal sector** while maintaining safety.
4. **Second Life Applications:** Exploring ways to repurpose old EV batteries for stationary energy storage before final recycling.

3. STRATEGIC IMPORTANCE FOR EXAMS

- **Governance:** The project is spearheaded by the **Office of the Principal Scientific Adviser (PSA)** to the Government of India.
- **Infrastructure:** A joint **India-EU pilot line** will be established in India for real-world validation and industrial deployment.
- **Deadlines:** The deadline for submitting research and innovation proposals is **September 15, 2026**.

4. KEY PERSONALITIES MENTIONED

- **Prof. Ajay Kumar Sood:** Principal Scientific Adviser (PSA) to the Govt. of India.
- **H.E. Hervé Delphin:** Ambassador of the European Union to India.
- **Dr. Parvinder Maini:** Scientific Secretary, Office of the PSA.

PLASTIC WASTE IN ROAD CONSTRUCTION: CSIR-CRRI & BPCL ACHIEVEMENT

Key Highlights:

- **Record Title:** "First Roadblock Section Constructed Using Technical Textile Geocell Made from End-of-Life Plastic."
- **Recognition:** Dual recognition by the **India Book of Records** and **Asia Book of Records**.
- **Partnership:** A collaboration between **CSIR-Central Road Research Institute (CSIR-CRRI)** and **Bharat Petroleum Corporation Limited (BPCL)**.
- **Event Venue:** CSIR-CRRI Auditorium, New Delhi.

1. TECHNOLOGY & INNOVATION

- **Geocells:** The technology involves processing "End-of-Life" (non-recyclable/waste) plastic into **technical textile geocells**. These are 3D honeycomb-like structures used to reinforce soil and road layers.
- **Circular Economy:** It converts difficult-to-manage plastic waste into value-added infrastructure materials, directly supporting India's **Circular Economy** goals.
- **Engineering Benefits:** Beyond waste management, these geocells meet rigorous standards for structural integrity, durability, and field applicability in road engineering.

2. STRATEGIC IMPORTANCE FOR EXAMS

- **Environmental Stewardship:** This initiative addresses two national priorities: **Sustainable Waste Management** and **Resilient Infrastructure Development**.
- **Industry-Academia Collaboration:** It serves as a prime example of research (CSIR) being translated into scalable industrial applications (BPCL).
- **Sustainable Development Goals (SDGs):** This aligns with **SDG 9** (Industry, Innovation, and Infrastructure) and **SDG 12** (Responsible Consumption and Production).

3. KEY PERSONALITIES MENTIONED

- **Dr. (Mrs.) N. Kalaiselvi:** Director General of CSIR and Secretary of DSIR (Department of Scientific and Industrial Research).
- **Dr. Ch. RaviSekhar:** Director of CSIR-CRRI.
- **Dr. Ambika Behl:** Lead Scientist (Scientist F) at CSIR-CRRI involved in the project.
- **Dr. Mahesh Kasture:** Chief Manager, BPCL.

4. QUICK REVISION CAPSULE

Feature	Details
Collaborators	CSIR-CRRI + BPCL

Feature	Details
Material Used	End-of-Life Plastic Waste
Product	Technical Textile Geocells
Records Held	India & Asia Book of Records
Primary Goal	Green Infrastructure & Waste-to-Wealth

INTERNATIONAL BIG CAT ALLIANCE (IBCA) SUMMIT - 2026

Key Highlights:

- **Summit Dates:** June 1 - 2, 2026.
- **Venue:** New Delhi, India.
- **Launched By:** Shri Bhupender Yadav, Union Minister for Environment, Forest and Climate Change (launched the Summit website and logo).
- **Theme:** 'Save Big Cats, Save Humanity, Save Ecosystem'.

1. WHAT IS THE INTERNATIONAL BIG CAT ALLIANCE (IBCA)?

- **Origin:** Launched by Prime Minister Narendra Modi in **2023** to mark the 50th anniversary of Project Tiger.
- **Headquarters:** India.
- **Nature:** An inter-governmental international organization.
- **Objective:** To provide a global platform for the conservation of seven major big cat species through mutual cooperation and knowledge sharing.
- **The Seven Big Cats:**
 1. Tiger
 2. Lion
 3. Leopard
 4. Snow Leopard
 5. Cheetah
 6. Jaguar

7. Puma

2. CORE OBJECTIVES OF THE 2026 SUMMIT

- **Delhi Declaration:** A primary outcome will be the adoption of the 'Delhi Declaration', the first-ever global declaration articulating shared priorities for big cat conservation.
- **South-South Cooperation:** Facilitating technical and financial synergy between developing nations (Big Cat Range Countries).
- **Global Participation:** Expected attendance from over 95 range countries, including Heads of State, scientists, and policymakers.

3. SIGNIFICANCE OF THE LOGO & WEBSITE

- **The Logo:** Features the seven big cat species at its core, encircled by a lotus-inspired design representing the five elements of nature (Panchabhuta). It symbolizes harmony and shared responsibility.
- **The Website:** Acts as a digital hub for outreach, research sharing, and global engagement regarding the 2026 Summit.

4. STRATEGIC EXAM POINTS (QUICK REVISION)

- **India's Role:** India is the only country in the world to have five of these seven big cats in the wild (Tiger, Lion, Leopard, Snow Leopard, and Cheetah).
- **Missing Species in India:** Jaguar and Puma are not native to India (found primarily in the Americas).
- **Ecological Role:** Big cats are **Umbrella Species**; protecting them leads to the conservation of the entire ecosystem, biodiversity, and water resources.
- **Diplomacy:** The summit strengthens India's leadership in **Environmental Diplomacy** and the Global South.

INDIA-ALGERIA INAUGURAL JOINT COMMISSION MEETING ON DEFENCE

Key Highlights:

- **Meeting Date:** May 5, 2026.
- **Venue:** New Delhi, India.
- **Significance:** This marks the **first-ever (inaugural)** Joint Commission meeting between the two nations specifically focused on expanding defence cooperation.
- **Co-Chairs:** Shri Amitabh Prasad (Joint Secretary, International Cooperation, India) and Maj Gen Kaid Nour Eddine (Chief of Staff of the Naval Forces, Algeria).

1. CORE AREAS OF COOPERATION

The two nations discussed and agreed to enhance engagement in the following sectors:

- **Military Training:** Expanding programs for personnel from both countries.
- **Joint Exercises:** Planning and conducting bilateral military maneuvers.
- **Defence Industry:** Collaboration in manufacturing, technology transfer, and industrial interaction.
- **Medical Cooperation:** Strengthening ties between the Armed Forces Medical Services of both nations.

2. KEY OUTCOMES AND FRAMEWORKS

- **Rules of Procedure (RoP):** Both countries signed the RoP, which establishes a formal guiding framework for future Joint Commission meetings and oversees the implementation of agreed-upon defence activities.
- **Strategic Momentum:** This meeting builds upon the **Defence Memorandum of Understanding (MoU)** signed between India and Algeria in **2024**, which has led to increased high-level diplomatic and military visits.

3. STRATEGIC IMPORTANCE FOR EXAMS

- **Africa Outreach:** Algeria is a key player in North Africa. Strengthening this bond aligns with India's broader strategy to expand its strategic footprint across the African continent.
- **Inter-Agency Participation:** The Indian delegation was highly diverse, including representatives from:
 - HQ Integrated Defence Staff (IDS)
 - Department of Defence Production
 - DRDO (Defence Research and Development Organisation)
 - Ministry of External Affairs (MEA)
- **Defence Exports:** This dialogue supports India's goal of becoming a global defence manufacturing hub by engaging with potential international partners for indigenous military hardware.

4. QUICK REVISION CAPSULE

Feature	Details
Partner Country	Algeria (North Africa)
Inaugural Meeting	May 2026, New Delhi
Foundation MoU	Signed in 2024
Key Framework	Rules of Procedure (RoP) for Defence Cooperation
Focus Industries	Training, Naval Cooperation, and DRDO-led innovations

INS SUDARSHINI ARRIVES AT CAPE VERDE (LOKAYAN-26 VOYAGE)

Why in News?

The Indian Navy's Sail Training Ship, **INS Sudarshini**, entered the Port of **Mindelo** on São Vicente Island, Cape Verde, on May 4, 2026.

1. HIGHLIGHTS OF THE LOKAYAN-26 VOYAGE

- **Commencement:** The transoceanic voyage was flagged off on January 20, 2026.
- **Milestone:** This visit to Mindelo marks the **eighth port call** of the deployment.
- **Strategic Transition:** It is the vessel's **final African stopover** before it begins its trans-Atlantic passage toward the Caribbean.
- **Distance Covered:** The ship has already traversed over **8,000 nautical miles**, achieving several historic milestones for the Indian Navy.

2. OBJECTIVES OF THE VISIT

- **Maritime Diplomacy:** Serving as a symbol of India's global maritime outreach and goodwill.
- **Capacity Building:** Engaging in **cross-training exchanges** and professional interactions with the **Cape Verde Coast Guard**.
- **Interoperability:** Fostering mutual cooperation and understanding between the maritime authorities of both nations.

3. KEY FACTS FOR COMPETITIVE EXAMS

- **Type of Vessel:** INS Sudarshini is a **Sail Training Ship (STS)** designed to train officers and sailors in the traditional art of sailing.
- **Geography:** Mindelo is a significant port city in **Cape Verde**, an archipelago nation in the central **Atlantic Ocean**.
- **Significance:** The deployment reaffirms India's "SAGAR" (Security and Growth for All in the Region) vision and its role as a preferred security partner in the maritime domain.

4. QUICK REVISION CAPSULE

Feature	Details
Vessel Name	INS Sudarshini
Deployment Name	Lokayan-26

Feature	Details
Location	Mindelo, Cape Verde (Africa)
Ocean Body	Atlantic Ocean
Next Phase	Trans-Atlantic passage to the Caribbean
Primary Goal	Training and Maritime Diplomacy

Potential Exam Questions:

- **Current Affairs:** "Which Indian Naval ship recently visited Cape Verde as part of its transoceanic voyage?" (Ans: INS Sudarshini)
- **Geography/Map-based:** "The Port of Mindelo, recently in the news, is located in which country?" (Ans: Cape Verde)

INDIA-VIETNAM BILATERAL SUMMIT OUTCOMES (MAY 2026)

Context:

The State Visit of the President of **Vietnam** to India resulted in the elevation of diplomatic ties and the signing of **13 Memoranda of Understanding (MoUs)** along with **5 major announcements**.

1. MAJOR ANNOUNCEMENTS

- **Elevation of Ties:** Bilateral relations have been upgraded to an "**Enhanced Comprehensive Strategic Partnership**."
- **Trade Target:** A new bilateral trade goal of **USD 25 billion** has been set for the year 2030.
- **IPOI Membership:** **Vietnam** has officially joined the **Indo-Pacific Oceans Initiative (IPOI)**, a maritime security framework launched by India.
- **Agricultural Trade:** India will begin exporting **grapes** to **Vietnam**, while **Vietnam** will export **Durian** fruit to India.
- **Heritage Preservation:** Establishment of a **Site Interpretation Centre** at the UNESCO World Heritage Site of **My Son** in **Vietnam**.

2. KEY MEMORANDA OF UNDERSTANDING (MOUS)

Sector	Agreement Details
Digital Payments	Institutional linkage between NPCI (India) and NAPAS (Vietnam) for Cross-Border QR Code payment interoperability.
Financial Innovation	Cooperation between the Reserve Bank of India (RBI) and the State Bank of Vietnam in digital payment systems.
Rare Earth Elements	Expansion of cooperation in Rare Earth Elements and new-age technologies between IREL (India) and ITRRE (Vietnam).
Medical Regulation	Cooperation in the regulation of pharmaceuticals and medical devices between CDSCO (India) and DAV (Vietnam).
Digital Technology	Deepening of bilateral commitment in IT and digital domains through the Ministry of Electronics and IT (MeitY).
Public Sector Audit	Renewal of the framework for cooperation in auditing between the Comptroller and Auditor General (CAG) of India and the State Audit Office of Vietnam.
Urban Cooperation	Friendship agreement between Brihanmumbai Municipal Corporation (BMC) and Ho Chi Minh City for urban management.

3. EDUCATION & CULTURAL OUTCOMES

- **Digitization of Manuscripts:** Digitization of Cham Manuscripts of Indian origin preserved in Vietnam (Project by Gyan Bharatam & IGNCA).
- **ICCR Chairs:** Establishment of ICCR Chairs of Indian Studies at Da Nang University and the University of Social Sciences and Humanities in Vietnam.
- **Nalanda University:** Vietnam will receive capacity building and training support from Nalanda University in Rajgir.

- **Cultural Exchange:** Approval of the **Cultural Exchange Programme (CEP)** for the period 2026–2030.

4. STRATEGIC IMPORTANCE FOR COMPETITIVE EXAMS

- **Act East Policy:** **Vietnam** remains a vital pillar of India's **Act East Policy** and a key partner in the ASEAN region.
- **Digital Diplomacy:** The QR code agreement makes **Vietnam** part of a growing list of nations (like Singapore, UAE, France) that have integrated with India's UPI/RuPay ecosystem.
- **Maritime Security:** **Vietnam's** entry into the **IPOI** strengthens India's vision for a "Free and Open Indo-Pacific."

