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Daily News Analysis

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1. European Free Trade Association (EFTA)

- **Prelims** - European Free Trade Association
- **Mains** - GS 3 - Economy

Why in the news?

- The free trade pact between India and European Free Trade Association (EFTA) will kickstart from October 1, 2025.

European Free Trade Association (EFTA)

- **What is it?**: It is an intergovernmental organization established in 1960 by the Stockholm Convention.
- **Objective**: Promotes free trade and economic integration between its members within Europe and globally.
- **Member countries**: Iceland, Liechtenstein, Norway and Switzerland.
- **Features**:
 - The EFTA countries have developed one of the largest networks of Free Trade Agreements (FTAs).
 - These FTAs span 60 countries and territories, including the European Union (EU).
 - EFTA is not a customs union.
- **Governing Structure**:
 - EFTA's highest governing body is the EFTA Council. It generally meets 8 times a year at the ambassadorial level and twice a year at the ministerial level.
 - **The headquarters of the EFTA Secretariat is located in Geneva.** It assists the EFTA Council in managing relations between the 4 EFTA States and deals with the negotiation and operation of EFTA's FTAs.
 - **EFTA Surveillance Authority (ESA)**: It monitors compliance with European Economic Area (EEA) rules in Iceland, Liechtenstein and Norway.
 - **EFTA Court**: It is based in Luxembourg and has the competence and authority to settle internal and external disputes regarding the implementation, application, or interpretation of the EEA agreement.



India - European Free Trade Association (EFTA) Deal

- EFTA, founded in 1960 (by the Stockholm Convention in 1960), comprises Iceland, Liechtenstein, Norway, and Switzerland, aiming to promote free trade and economic integration among its members.
- The agreement covers trade in goods and services, rules of origin, intellectual property rights (IPR), investment promotion, government procurement, competition, sustainable development, labor issues, human rights, and dispute settlement mechanisms.
- It seeks to attract \$100bn in fresh FDI to India and create a million jobs over 15 years.
- It includes safeguard measures, trade remedies, and review clauses, with dairy and agri products mostly on sensitive lists to protect farmers.
- Labor commitments include eliminating forced or compulsory labor, abolishing child labor, and ending discrimination.
- **Benefits:**
 - Indian consumers may enjoy lower prices on seafood, Swiss chocolates, watches, medical equipment, certain medicines, minerals, dyes, and machinery equipment.
 - It ensures a level playing field for both parties regarding regulatory and information transparency, licensing, and application procedures.
 - TEPA could serve as a model for ongoing trade agreements under negotiation with the European Union and the United Kingdom.
- **Challenges:**
 - The deal, without the India-EU FTA, may create distortions, as EFTA countries are part of the Schengen area.
 - Exporting farm produce from India could remain challenging due to tariffs and quality standards.
 - The trade gap favors the EFTA group, and future trends are uncertain.



2. National Critical Mineral Mission (NCMM)

- **Prelims** - National Critical Mineral Mission (NCMM)
- **Mains** - GS 3 - Economy

Why in the News?

- Union Cabinet approved Rs. 1500 Crore Incentive scheme to develop recycling capacity of critical minerals in India.

National Critical Mineral Mission (NCMM)

- **Objectives:**
 - To ensure India's self-reliance in critical mineral resources.
 - Strengthen India's supply chain for critical minerals through domestic exploration, overseas asset acquisition, and technological innovation.
- **Ministry:** Union Ministry of Mines
- **Features:**
 - Setting up mineral processing parks and supporting the recycling of critical minerals.
 - Promote research in critical mineral technologies and proposes setting up Centre of Excellence on Critical Minerals.
 - It also proposes development of a stockpile of critical minerals within the country.
 - It encourages Indian PSUs and private sector companies to acquire critical mineral assets abroad and enhance trade with resource-rich countries.
- **Significance:**
 - Supports India's renewable energy transition (e.g., lithium for batteries, rare earths for electronics).
 - Reduces dependence on China and other foreign suppliers for key minerals.
 - Strengthens national security by securing supply chains for defense applications.

Critical Minerals

- *Critical minerals are those minerals that are essential for economic development and national security, the lack of availability of these minerals or concentration of extraction or processing in a few geographical locations may lead to supply chain vulnerabilities and even disruption of supplies.*



- The 30 critical minerals are Antimony, Beryllium, Bismuth, Cobalt, Copper, Gallium, Germanium, Graphite, Hafnium, Indium, Lithium, Molybdenum, Niobium, Nickel, PGE, Phosphorous, Potash, REE, Rhenium, Silicon, Strontium, Tantalum, Tellurium, Tin, Titanium, Tungsten, Vanadium, Zirconium, Selenium and Cadmium.



3. Vikram 3201 Chip

- Prelims - Vikram 3201 Chip
- Mains - GS 3 - Science and Technology

Why in the news?

- India unveils its first fully indigenously developed 32 bit microprocessor- The **Vikram 3201** at Semicon India 2025 conference.

Vikram 3201 Chip

- **What is it?:** India's first fully indigenous 32-bit space-grade microprocessor designed for **launch-vehicle avionics and space missions**.
- **Background & Significance:**
 - Evolved from the earlier **Vikram 1601**, a 16-bit processor used in ISRO's launch vehicles since 2009.
 - Represents a leap in India's quest for **technological self-reliance** in critical microelectronics for space.
 - Unveiled at **Semicon India 2025** and presented to the Prime Minister, marking a symbolic milestone in India's semiconductor mission.
- **Design & Development:**
 - Designed by **Vikram Sarabhai Space Centre (VSSC)**, developed and fabricated at **ISRO's Semiconductor Laboratory (SCL)** in Chandigarh/Mohali using a **180 nm CMOS** process.
 - First production lot was delivered in **March 2025** and validated in space aboard **PSLV-C60 (POEM-4)**.
- **Technical Specifications & Features:**
 - **Architecture:** 32-bit custom instruction set; supports 16/32-bit fixed-point and 64-bit floating-point arithmetic.
 - **Performance:** Operates at 100 MHz, under 3.3 V, power consumption < 500 mW, quiescent current < 10 mA.
 - **Memory & Control:** 32 registers (32-bit wide), addressing up to 4096M words; supports 152 instructions; microprogrammed control.
 - **Software Toolchain:** In-house Ada compiler, assembler, linker, simulator, IDE.



- **Environmental Robustness:** Certified to withstand -55°C to $+125^{\circ}\text{C}$, radiation, vibration- space-qualified standards
- **Applications:**
 - Designed for **navigation, guidance, control, and mission management** in ISRO's launch vehicles.
 - Extended applicability in **defence, aerospace, automotive, and energy** systems due to its rugged reliability.
- **Strategic Importance:**
 - Embodies **India's semiconductor mission** ethos- Self-reliance, innovation, and strategic autonomy.
 - Places India alongside global players using legacy 32-bit processors in critical space missions (e.g., NASA's RAD750, Europe's LEON), albeit modern nations are moving towards 64-bit and AI-enabled processors.



4. Lebanon

- Prelims - Location of Lebanon
- Mains - GS 2 - International Relations

Lebanon



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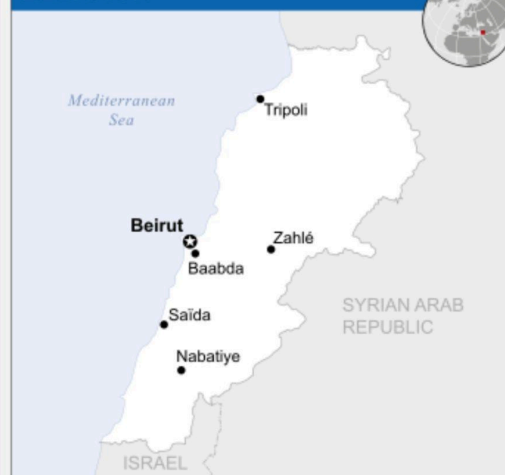
Why in the news?

- Israel carry out drone attack on UN peacekeepers in Lebanon.

Lebanon

- **Location:** Lebanon is a country in West Asia.
- **Capital:** Beirut.
- **Border Countries:** Syria, Israel.
- **Bordering Waterbodies:** Mediterranean Sea.
- **Climate:** Mediterranean climate.

LEBANON



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5. Exercise MAITREE

- Prelims - Exercise MAITREE
- Mains - GS 2 - International Relations

Exercise MAITREE



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Why in the news?

- The 14th edition of the Exercise MAITREE commenced,

Exercise MAITREE

- **What is it?:** It is joint army exercise between India and Thailand.
- **Host:** India
- **Launch:** Instituted in 2006
- **Aim:** To foster Military Cooperation between India and Thailand.
- **Features**
 - The Exercise will enhance combined capabilities in executing Joint Counter Insurgency/ Terrorist Operations in Jungle and Urban Environment under Chapter VII of United Nations Charter.
 - The Exercise will focus on high degree of physical fitness, joint planning and joint tactical drills.



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6. Biodiversity Beyond National Jurisdictions (BBNJ)

- Prelims - Biodiversity Beyond National Jurisdictions (BBNJ)
- Mains - GS 3 - Environment

Why in the news?

- The Ministry of Earth Sciences has set up a 12-member drafting committee to prepare the contours of the new law in accordance with the provisions of High Sea Treaty.

Biodiversity Beyond National Jurisdictions (BBNJ)

- **What is it?**
 - Also called the High Seas Treaty.
 - A legally binding instrument under UNCLOS (United Nations Convention on the Law of the Sea).
 - Deals with conservation and sustainable use of biodiversity in international waters (beyond territorial waters & EEZs).
 - Covers ~64% of the oceans, considered global commons.
- **Came into Force:** June 2023 after 20 years of negotiations
- **Headquarters:** New York
- **Objectives**
 - Establish Marine Protected Areas (MPAs) in the high seas (like national parks/wildlife reserves).
 - Ensure sustainable use of marine biodiversity & resources.
 - Regulate extractive activities (e.g., sea-bed mining).
 - Introduce mandatory Environmental Impact Assessments (EIAs) before major projects.
 - Provide for equitable benefit-sharing from marine genetic resources.
 - Strengthen global governance of oceans.
- **India's Position**
 - Signed, but not yet ratified.
 - 55 countries ratified; treaty comes into force 120 days after 60th ratification.
 - India is drafting a domestic legislation to:
 - ★ Build institutional capacity for marine EIAs.
 - ★ Equip itself to utilize economic benefit-sharing provisions.



★ Align national interests with treaty obligations.

- **Significance**

- Balances freedom of navigation, overflight, fishing, infrastructure (undersea cables), and mineral extraction with conservation duties.
- Protects marine ecosystems against pollution, overfishing, and excessive exploitation.
- Builds a framework for blue economy opportunities while safeguarding biodiversity.

- **Challenges**

- Ratification delay: Global target not yet reached.
- Capacity gaps: Need scientific, legal, and institutional frameworks for EIAs and benefit-sharing.
- Geopolitical rivalries: Conflicts in high seas (e.g., deep-sea mining, navigation rights).
- Overlap with other conventions: CBD, regional fisheries treaties, etc.