Prelim Bits 08-10-2023 & 09-10-2023 | UPSC Daily Current Affairs

Critical Minerals and Clean Energy Summit, 2023

The 1st edition of the International Energy Agency's Critical Minerals and Clean Energy Summit was held recently at Paris, France.

- **Aim** - To discuss the challenges and opportunities behind rising demand for critical minerals by sharing experiences.

Critical minerals are minerals like copper, lithium, nickel and cobalt that are essential for developing clean energy technologies, economic development and national security.

6 Key Action Areas of the Summit
• Accelerating progress towards diversified minerals supplies. • Unlocking the power of technology and recycling. • Promoting transparency in the markets. • Enhancing the availability of reliable information. • Creating incentives for sustainable and responsible production. • Strengthening efforts on international collaboration.

IEA's 2024 Ministerial Meeting will be held in Paris, France and will be co-chaired by Ireland and France.

International Energy Agency (IEA)
• The IEA was founded in **1974** to ensure the security of oil supplies. • It is a **Paris** based autonomous intergovernmental organization established in the framework of the Organisation for Economic Co-operation and Development (OECD). • **Only OECD member** states can become members of the IEA and India is an associate member of IEA. • The IEA acts as a policy adviser to its member states, but also works with non-member countries, especially China, India, and Russia.

*Based on the 'Report of the Committee on Identification of Critical Minerals' constituted by the Ministry of Mines, India classifies **30 critical minerals** as essential for its economic development and national security.*

References

1. The Indian Express | Critical Minerals & Clean Energy Summit 2023
2. International Energy Agency | Critical Minerals summit

Iron Dome

Hamas militant group of Palestine in their attack against Israel since 1948 were able to breach Israel's renowned Iron Dome defense system.

- **Developed by** - The state-owned Rafael Advanced Defence Systems with the backing of the United States during *2006 Israeli-Lebanon war.*
- **Operational** – It became operational in 2011.

Features	3 Main Systems
• Short range • Ground-to-air defence • Laser Controlled Fuse • Tamir interceptor missiles	• **Detection and tracking radar** - To spot any incoming threats • **Battle management and weapon control system (BMC)** - It basically coordinates between the radar and the interceptor missile. • **Missile Firing Unit** - Neutralise any rockets or missiles.
Iron dome is capable of being used in all weather conditions, including during the ***day and night***.	

- On reaching within 10 metres of target, *laser-controlled fuse, activates and blasts* the missile with shrapnel.

- **Targets**
  - Rockets, artillery & mortars (C-RAM).
  - Aircraft, helicopters and unmanned aerial vehicles.

Other systems of Israel

- **David's Sling and Arrow** - To identify and eliminate medium-and long-range threats like drones and planes.
- **Arrow-3** - It was designed to intercept and counter ballistic missiles outside the atmosphere of the earth.

References

The Indian Express | Israel's Iron Dome

Dakar Declaration on Climate Change 2023

Recently, Ministers from 46 Least Developed Countries (LDC) issued a joint Dakar Declaration on Climate Change 2023.

- **Aim** - To outline the LDC's expectation and priorities for 28th Conference of Parties (COP28) to the UN Framework Convention on Climate Change.

  The Conference of Parties (CoP-28) of UNFCCC will be held in 2023 at Dubai, UAE.

  Dakar is the capital city of Senegal located in the West Africa

Dakar Declaration calls for
• Urgent global emissions reductions. • Increased climate finance. • To operationalise Loss and Damage Fund. • Global Stocktake to close the gaps in global climate action.

- **Global Emission Reduction** – To revisit and strengthen the 2030 targets in their NDCs to limit warming to 1.5°C.

  IPCC's Synthesis Report for the 6th Assessment Reports cycle (IPCC AR6), shows that global greenhouse gas (GHG) emissions have continued to rise and that global warming is rapidly approaching 1.5°C.

- **Climate Finance** – Developed countries shall deliver at least *doubling adaptation finance delivered by 2025* through public, grant-based financing.
- To create a new *Collective Quantified Goal on Climate Finance*, greater than the current $100 billion per year floor.
- **Operationalising** Loss and Damage Fund – To operationalise UNFCCC centralised carbon market mechanism by 2024.
- To implement the Article 6 of the Paris Agreement of capacity building programme.
- Global Stocktake – To prepare a *roadmap for the period after 2023* to implement the recommendations from the first Global stocktake.

Status of LDC
• Account for 14% of the global population. • Contribute about 1% of emissions of the world. • They bear the least historical responsibility for climate change. • They are forced to adapt beyond their capabilities. • They are at the forefront of the climate crisis.

References

1. Down to Earth | Dakar Declaration on Climate Change
2. Least Developing Countries | LDC group Ministerial Declaration

Reticulated Python

Recently, a juvenile of world's longest snake species sighted inside IIT Madras.

- **Scientific name** – *Malayopython reticulatus*
  - World's *longest* and *3rd heaviest* snakes ever recorded.
  - *Non-venomous*, and *slow-moving* reptile.
- **IUCN status** - *Least concern* (LC).
- **Habitat** – Commonly found in Southeast Asia.
- **Range** - Their range includes Burma through Indochina and Borneo, Sulawesi, Ceram and Timor in Malay Archipelago.
- In India, they are found in the wild only in ***Nicobar Islands***.
- **Growing Conditions**
  - Tropical environments.
  - Heavily dependent on water.
  - Highly adaptable python species.

Irula Tribes

- **Irula tribes**, also known as Iruliga, are a Dravidian ethnic group inhabiting the Indian states of Tamil Nadu, Kerala and Karnataka who are famously called as **Snake Catchers**.
- ***Vadivel Gopal and Masi Sadaiyan*** from the Irula community were granted Padma Shri in 2023 for expert snake catchers guiding and teaching people across the globe.

References

The Indian Express | Reticulated Python in IIT Madras

Invasive Mussels

The National Green Tribunal (NGT) has ordered the government authorities to file a detailed report on the removal of invasive mussel species from Ennore-Pulicat wetland of Tamil Nadu.

> *A small sea creature that has a black shell with two parts that close tightly together.*

Mytella strigata

- *Scientific name - Mytella strigata*
- *Local Name - Kakka aazhi*
- *Native - South America*
- **Reasons for spread -** It spreads *due to the discharge of ballast waters* from ships.
- Human interference in the wetlands and pollution promotes a full-fledged infestation.
- After *Cyclone Vardah in 2016*, they began to intensify and spread far north towards the Pulicat waters.
- The firm, *ash-covered riverbed is also helping* the kaaka aazhi expand its territory.
- **Threats -** It *prevents prawns from grazing* or burying themselves in the sediment.
- It *wipes out the local species* like yellow clams (manja matti) and green mussels (pachai aazhi).

Ennore-Pulicat wetlands are in the River Kosasthalaiyar basin which is the largest waterscape in Chennai and is mosaic of thriving ecologies.

- **Issues over NGT Jurisdiction** – *Kaaka aazhi is not an alien* species as it has an entry in the Wildlife Protection Act, 1972 (WPA).
- NGT does *not have jurisdiction over WPA*, which is not listed in Schedule I of the NGT Act.

National Green Tribunal (NGT), a statutory body formed in 2010 for disposal of cases related to environmental protection and other natural resources whose Southern Bench is at Chennai.

References

1. The Hindu| NGT's Jurisdiction over Invasive Mussels
2. The Hindu| Threat of Invasive Mussels

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