

## Prelim Bits 09-12-2023 | UPSC Daily Current Affairs

### Agni Missiles

Recently, training launch of Short-Range Ballistic Missile 'Agni-1' was carried out successfully from APJ Abdul Kalam Island in Odisha.

- It is a family of medium to long-range **surface-to-air ballistic missile**.
- **Design and development** - Defence Research and Development organisation (DRDO)
- **Umbrella program** - [Integrated Guided Missile Program \(IGMP\)](#)
- **Operated by** - **Strategic Forces Command (SFC)**, a key tri-services formation that administers all the strategic assets and falls under the Nuclear Command Authority of India.
- **Purpose** - To act as deterrence & meet the country's security requirements.

*Agni-I is the 1<sup>st</sup> in the series which was tested in 1989.*

| Missile         | Range (Km)                                       | Features  |
|-----------------|--|---|
| <b>Agni-I</b>   | Medium Range (700-1200)                          | <ul style="list-style-type: none"> <li>• Customised weapon load</li> <li>• Have high degree of precision</li> </ul>   |
| <b>Agni-P</b>   | Medium Range (1000-2000)                         | <ul style="list-style-type: none"> <li>• <a href="#">2-stage canister missile</a></li> <li>• India's 1<sup>st</sup> Multiple Independently targetable Re-entry Vehicle (MIRV) missile</li> <li>• Launch from train or road</li> </ul> |
| <b>Agni-II</b>  | Medium Range (2000-2500)                         | <ul style="list-style-type: none"> <li>• Nuclear capable</li> <li>• Night operable</li> </ul>   |
| <b>Agni-III</b> | Intermediate Range (Up to 3500)                  | <ul style="list-style-type: none"> <li>• Can target Pakistan and China</li> </ul>   |
| <b>Agni-IV</b>  | Intermediate (3500-4000)                         | <ul style="list-style-type: none"> <li>• Launch from road mobile launcher</li> </ul>  |
| <b>Agni-V</b>   | Inter-Continental Ballistic Missile (>5500)      | <ul style="list-style-type: none"> <li>• <a href="#">India's 1<sup>st</sup> ICBM</a></li> <li>• Night capable</li> </ul>  |
| <b>Agni-VI</b>  | Inter-Continental Ballistic Missile (8000-10000) | <ul style="list-style-type: none"> <li>• Under development</li> <li>• Launch from land and submarine</li> </ul>   |

### References

1. [PIB| Successful training launch of Agni-I](#)
2. [Times Now| Agni Missile Series](#)

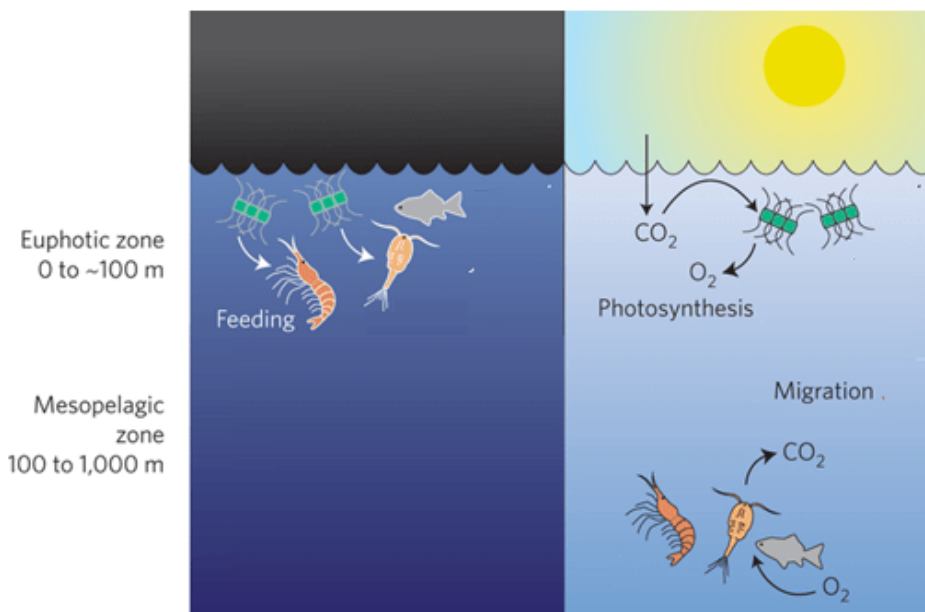
## Diel Vertical Migration (DVM)

Deep sea organisms play a crucial role in the earth's carbon cycle through the process of diel vertical migration.

- It is a ***synchronised vertical movement*** of billions of animals, mostly zooplankton (e.g., smallish animals, including fish, various shrimp, and jellies) in the ocean.

*DVM is the largest migration on the planet by biomass which occurs daily in all oceans.*

- **Principle** - A delicate balance between the need to feed and to avoid becoming prey.
- **Timing of migration** - In tune to the ***natural rhythms of sunrise and sunset***.
- **During the night** - They ***ascend*** from the mesopelagic layer to the epipelagic layer to graze on the microscopic phytoplankton while avoiding their daytime predators.
- **During day** - They ***descent*** into deeper, darker levels of ocean to escape from the predators.



- **Role in carbon sequestration** - They ***remove carbon from the upper ocean*** as they feed on surface-dwelling plankton and ***carry the carbon to deeper waters*** while returning.
- When they are consumed by predators, the carbon is passed to them.
- The carbon-rich wastes produced by the predators then sink to the ocean floor, where it ***remains trapped for millennia***.

## Reference

[The Hindu | Diel Vertical Migration \(DVM\) as a Carbon Sink](#)

## Permakore

The Koyas have moved on from using traditional Indian Bison horns to palm leaves to craft their 'Permakore'.

- A **traditional flute of Koya tribes** that are made of Bison horn.
- In Koya language,
  - **Permam** -Indian Bison or Guar
  - **Kore** - Horn
- The koya women are **nowhere associated** with the Permakore in any phase of its use.

*'Bhumi Panduga', a festival to mark the commencement of the agricultural season will not be held without the Permakore.*

## Koya tribes

- The Koya are a tribe of hunter-gatherers.
- They inhabit the **Papikonda hill** range in the Eastern Ghats in **Andhra Pradesh** and in the states of Telangana, Chhattisgarh, and Odisha.

*Papikondalu hill range is also called as the' **Bison hill range'** as it is home to the Indian Bison. It got the national park status in 2008.*

- **Importance of Bison horns**
  - 2 Bison horns are adorned on the head as part of the attire during the **Kommu Koya dance**
  - The **Permakore flute** is made of a single horn.

### Indian Bison (Indian Gaur)

- It is a bovine species *native to South and Southeast Asia*.
- **Scientific name** - *Bos gaurus*
- It is the tallest living and the 2<sup>nd</sup> heaviest among oxen and is considered as *the largest living bovine*.
- **Estimated population** - Around 13,000 to 30,000 in the world with approximately 85% of the population present in India.
- **Protection status**
  - IUCN Red List - *Vulnerable*
  - Wildlife Protection Act 1972 - *Schedule I*

## Reference

[The Hindu| Replacing Bison horn with Palm leaf flute](#)

## Santiago Network

*The draft text on the Santiago Network has been adopted by the Parties and sent to the Conference of the Parties (COP) of UNFCCC at COP28 in UAE.*

- It is a collaborative framework established as part of the **Warsaw International Mechanism for Loss and Damage (WIM)** under the UNFCCC.
- **Aim** - To connect vulnerable developing countries with technical support and resources to effectively address and manage loss and damage caused by climate change.
- **Genesis**
  - **At COP19, 2013** (Warsaw, Poland) - Proposal to establish
  - **At COP25, 2019** (Madrid, Spain) - Establishment
  - **At COP26, 2021** (Glasgow, UK) - Decision on functions
  - **At COP27, 2022** (Sharm El-Sheik, Egypt) - Adopted terms of references and established advisory body
- **Function** - To contribute for the effective implementation of the functions of the Warsaw international mechanism.
- **Hosts** - *The United Nations for Disaster Risk Reduction (UNDRR)* and *United Nations Office for Project Services* have been selected as hosts.

*Santiago is the capital of Chile.*

## References

1. [Down To Earth| Adoption of Santiago Network draft](#)
2. [UNFCCC| Santiago Network](#)

## India Art, Architecture, and Design Biennale (IAADB) 2023

*Recently, the 1<sup>st</sup> edition of IAADB was held at the Red Fort.*

- It is a celebration of our country's *diverse heritage and vibrant culture* and it will serve as an introduction to the Cultural Space at Delhi.
- **Aim** - To institutionalise a flagship Global Cultural Initiative in India like the International Biennales at Venice, Sao Paulo, Singapore, Sydney and Sharjah, among others.

*Cultural spaces are being built in Delhi, Kolkata, Mumbai, Ahmedabad, and Varanasi to enrich these cities culturally.*

- **7 Exhibition themes** - Doors of India, Gardens of India, Baolis (step-wells) of India, Temples of India, Architectural Wonders of Independent India, Indigenous Design and Women in Architecture and Design.

- They are designed in both ***physical and digital forms***.
- **Exhibition curated by**
  - The National Gallery of Modern Art
  - The National Council of Science Museums
  - Archaeological Survey of India (ASI)
  - Lalit Kala Akademi
  - Council of Architecture
  - The outreach department of the Ministry of Education
- **Atmanirbhar Bharat Centre for Design** - A special gallery to provide a platform ***to promote rare crafts of India*** which was curated by the Indira Gandhi National Centre for Arts.
- It will pave ***way for cultural economy*** by empowering artisan communities with new designs and innovations.
- **Samunnati** - It is a ***student biennale at Lalit Kala Akademi***, to showcase their work and interact with peers & professionals within the architecture community.

## References

1. [The Hindu| 1<sup>st</sup> Edition of IAADB 2023](#)
2. [PIB| Cultural Spaces in India](#)

## Other Important News

### Dodo (*Raphus cucullatus*)

- Geneticists and conservationists have joined forces to re-introduce the Dodo, extinct since the late 17<sup>th</sup> century.
- It is an extinct flightless bird that was endemic to the ***Island of Mauritius***.
- Dodos were large birds, approximately 3-feet tall.
- **Extinction reasons** - Climate change and human behaviour.

### Shidaowan Nuclear Plant

- China starts up ***world's 1<sup>st</sup> 4<sup>th</sup> generation nuclear reactor***, Shidaowan recently.
- It uses a high-temperature gas-cooled nuclear reactor with 1,150MW.
- 4<sup>th</sup> generation reactors can operate at higher temperatures than most other reactors, which allows them to generate both ***electricity and hydrogen***.

### **Ban import of diamonds**

- The Gem and Jewellery Export Promotion Council (GJEPC) recently raised concerns on the decision of G7 countries to impose a ban on direct imports of Russian-origin rough diamonds from January 1, 2024.
- The ban also includes diamonds processed by third countries, including India, from March 1, 2024.
- **India** is home to world's **90%** Diamond cutting and polishing industry.

### **UPI Payment Limit**

- The Reserve Bank of India (RBI) recently enhanced the UPI payment limits for healthcare and education from **Rs.1 lakh to Rs.5 lakh**.
- The limit on recurring e-payment mandates for credit card and insurance premia payments as well as mutual fund investments to Rs.1 lakh from the current limit of Rs.15,000.

### **Outcomes of Monetary Policy Committee Meeting**

- The Monetary Policy Committee (MPC) of the RBI unanimously decided to keep the repo rate unchanged at 6.5%.
- The standing deposit facility (SDF) rate remains at 6.25% and the marginal standing facility (MSF) rate and the bank rate at 6.75%.

### **MoU between NMCG-MRCTI**

- The National Mission for Clean Ganga (NMCG) has signed the Memorandum of Common Purpose (MoCP) with the Mississippi River Cities and Towns Initiative (MRCTI) of USA recently.
- The signing took place in Dubai during the COP28.
- The MoCP has signed on behalf of the [River Cities Alliance \(RCA\)](#).

### **UN Resolution on Ceasefire**

- A recent UN resolution to call for a ceasefire in Gaza was blocked by the United States using its veto power.
- A ceasefire is a temporary suspension of a war where each side agrees to stop aggressive actions.
- The **5 permanent members** who have **veto powers** in the United Nations Security Council - China, France, Russia, United Kingdom, and United States.

### **EU's AI Rules**

- The European Union has reached a deal recently on the **world's 1<sup>st</sup> comprehensive artificial intelligence** rules.
- It paves the way for legal oversight of AI technology.

### **Build for Bharat Initiative**

- **Announced by** - Open Network for Digital Commerce (ONDC) with Google Cloud India, Antler in India, Paytm, Protean and Startup India.
- **Aim-** To tackle diverse challenges in digital commerce, promoting industry innovation to develop practical solutions in this space.

### **4E Wave movement**

- The Union Minister for Power and New & Renewable Energy has launched 4E Wave Movement recently.
- It is a Student-Led National Movement for Energy Conservation in Jammu & Kashmir.
- **Aim** -To promote sustainable practices and instil a sense of responsibility in individuals and communities to save energy.

