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 1st in the series which was tested in 1989.

Missile	Range (Km)	Features
Agni-I	Medium Range (700-1200)	• Customised weapon load • Have high degree of precision
Agni-P	Medium Range (1000-2000)	• 2-stage canister missile • India's 1st Multiple Independently targetable Re-entry Vehicle (MIRV) missile • Launch from train or road
Agni-II	Medium Range (2000-2500)	• Nuclear capable • Night operable
Agni-III	Intermediate Range (Up to 3500)	• Can target Pakistan and China
Agni-IV	Intermediate (3500-4000)	• Launch from road mobile launcher
Agni-V	Inter-Continental Ballistic Missile (>5500)	• India's 1st ICBM • Night capable
Agni-VI	Inter-Continental Ballistic Missile (8000-10000)	• Under development • Launch from land and submarine

References

1. PIB| Successful training launch of Agni-I
2. Times Now| Agni Missile Series

Diel Vertical Migration (DVM)

Deep sea organisms plays 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 ***ascent*** 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 sinks 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 2nd 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** (Glassgow, 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 1st 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| 1st 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 17th 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 1st 4th generation nuclear reactor***, Shidaowan recently. • It uses a high-temperature gas-cooled nuclear reactor with 1,150MW. • 4th 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 1st 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.

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