## **02<sup>nd</sup> FEB, 2023**



# 

## INDIA AND US STEP UP STRATEGIC PARTNERSHIP WITH TECHNOLOGY INITIATIVE -INITIATIVE ON CRITICAL AND EMERGING TECHNOLOGY (ICET)

• iCET aims to:

- > Position two countries as trusted technology partners by building technology value chains and support the co-development and co-production of items.
- > Address regulatory restrictions, export controls and mobility barriers through a standing mechanism.
- During inaugural dialogue of iCET, two sides announced a set of programs to increase bilateral cooperation:
  - > Strengthen Innovation ecosystem. E.g. Establishment of Indo-US Quantum Coordination Mechanism to facilitate research and industry collaboration.
  - > Promote Defense Innovation and Technology Cooperation. E.g. Launching a new Innovation Bridge to connect defense startups of India and USA.
  - > Build Resilient Semiconductor Supply Chains. E.g. Readiness Assessment development by a task force involving India's Semiconductor Mission, India Electronics Semiconductor Association (IESA) and the US Semiconductor Industry Association (SIA).
  - > Similar initiatives are taken in other fields (see image) while the fields of biotechnology, advanced materials, and rare earth processing technology are identified as areas for future cooperation.

### • Potential Benefits:

- > Ease export barriers to India in critical areas such as High Performance Computing.
- > Strengthen linkages between the startup ecosystems of India and USA.
- > Foster an open, accessible, and secure technology ecosystem, based on mutual trust and confidence.

## **UNION BUDGET 2023-24: VISION FOR AMRIT KAAL PRESENTED IN PARLIAMENT**

- A budget is 'an estimation of revenue and expenses over a specified future period of time and is utilized by governments, businesses, and individuals at any income level'.
  - > Under Article 112, the Union Budget is referred to as the 'Annual Financial Statement' - a statement of the estimated receipts and expenditure of the government for that particular year (April 1 to March 31).
- Union Budget is not a single document rather a list of 13 documents.
  - > 3 documents i.e. Annual Financial Statement, Demands for Grants, and Finance Bill are mandated by Article 112,113 and 110(a) of Constitution.
  - >2 documents presented as per Fiscal Responsibility and Budget Management Act, 2003:
    - Macro-economic framework statement;
    - Medium term fiscal policy cum fiscal policy strategy statement.
  - > Other documents are in the nature of explanatory statements supporting the mandated documents.
- Vision for Amrit Kaal an Empowered and Inclusive Economy
  - > First budget of India's Amrit Kaal, the vision includes a technology-driven and knowledge-based economy with strong public finances, and a robust financial sector.

> Also, the Union Budget is guided by seven priorities that complement each other and act as the Saptarishi (see image). **Note:** The detailed summary of the budget will be released separately.

DELHI | JAIPUR | PUNE | HYDERABAD | AHMEDABAD | LUCKNOW | CHANDIGARH | GUWAHATI (1/4



ISRO and NASA will work on human space flight opportunities, NASA's Commercial Lunar Payload Services (CLPS) project, and have STEM talent exchanges

Joint Task Force of the Association of American SCIENCE, Universities and leading Indian educational institutions, including IITs, to make ENGINEERING TECHNOLOGY AND MATH recommendations for research and university partnerships

SPACE

NEXT GENERATION

TELECOMMUNIC

ATIONS

Launch of public-private dialogue telecommunications and regulations; dialogue and advancing cooperation in 5G/6G and Open RAN using trusted sources

IITs,

8468022022

() www.visionias.in

## **INTERNATIONAL SEABED AUTHORITY (ISA) AND MINISTRY OF EARTH SCIENCES** EXCHANGED PMN (POLYMETALLIC NODULES) EXPLORATION EXTENSION CONTRACT

- Contract for same was initially signed in 2002 for a period of 15 years. It was extended by ISA twice for 5 years period, during 2017 and 2022.
- > India has been assigned an area of about 75,000 sq km in Central Indian Ocean Basin (CIOB) for PMN exploration.
- PMN refers to small potato-like rounded accretions composed of minerals such as manganese, nickel, cobalt, copper and iron hydroxide.
- > These have immense economic and strategic importance.
- ISA, an autonomous international organisation established under 1982 United Nations Convention on the Law of the Sea, allots 'area' for deep-sea mining.
  - > Deep-sea mining is process of **retrieving mineral deposits** from deep seabed i.e. ocean **below 200m.**
- India was first country to receive status of a 'Pioneer Investor' in 1987.
- Significance of deep sea mining:
  - > Metals extracted from PMN can be used in electronic devices, smartphones, solar panels etc.
- By just utilizing 10% of PMN reserve available in allotted area, India can meet its energy requirements for the next 100 years.
- Concerns related to deep sea mining:
  - > May cause **unavoidable**, irreversible harm to deep-sea ecosystems;
  - Can have a deleterious impact on marine species;
  - > Risk of accidents like leaks and spills of fuel etc.

## SUPREME COURT (SC) SEEKS CENTRE'S RESPONSE **ON STATUTORY BODY FOR ELEPHANT SAFETY**

- In 2010, the 'Gajah report' from Elephant Task Force made a slew of recommendations to protect and preserve the elephant population, including the:
  - > Constitution of a statutory National Conservation Elephant Authority (NECA) on the lines of National Tiger Conservation Authority (NTCA).
- About Asian Elephants (Elephas maximus)
  - > It is a **keystone species** playing a critical **SECURE ELEPHANT LANDSCAPES** role in sustenance of wildlife and biodiversity.
  - > It is listed:
    - IUCN Status: Endangered
    - In Appendix I of the Convention of CONFLICT MITIGATION the Migratory species.
    - In Schedule I of the Wild Life (Protection) Act, 1972.
  - > More than 60 % of the population of Asian elephants is found in India.
- Concerns:
  - Frequent Human-Elephant conflict and high number of unnatural deaths of elephants.
  - > As of December 2022, India has lost 494 elephants to train accidents, electrocution, poaching and poisoning over the past five years.
- Initiatives for Elephant Safety
  - > Project Elephant, a centrally sponsored scheme launched in 1992 for management of wildlife and its habitats in the country.
  - > In 2010, it was declared India's National Heritage Animal.
  - > Approval to **33 Elephant Reserves** by Centre with a total area of nearly 80,000 sq km.

■ In 2022, Terai Elephant Reserve (TER) was set up in Uttar Pradesh.

#### MAJOR RECOMMENDATIONS OF THE **ELEPHANT TASK FORCE**

ESTABLISH BETTER GOVERNANCE MODEL Form National Elephant Conservation Authority (NECA) Encourage direct recruitment at top levels.

- **UPGRADE RESEARCH & MONITORING SYSTEMS**  Establish National Elephant Baselines and estimation protocols by Consortium for Elephant Research and Estimation anchored by NECA.
- Promote long term dedicated research through Elephan Reserve Research Stations.

Establish open-air forest labs in elephant landscape adjacent to PAS. Identify institutions of excellence to run them

- Rationalise boundaries of Elephant reserves. Let-go Huma dominated landscapes.
- Declare as Slow-go areas through rest of Elephant Reserv and prioritised corridors.
- Consolidate No-go areas in these reserves as Protected Area network or critical wildlife habitat or other conservation zones

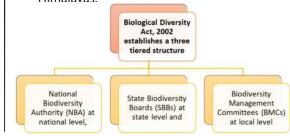
- Establish high conflict zone mitigation task forces to develop & oversee protocols. No culling; captures/translocations in dire situation
- Moratorium on Elephant Proof Trenches and Fences till standards in place

## STOP POACHING

Fill frontline vacancies with motivated local youth. Boost intelligence gathering and anti-wildlife crime technologies.

#### TSO TO BECOME YAYA LADAKH'S FIRST BIODIVERSITY HERITAGE SITE (BHS)

- Local Biodiversity Management Committee, concerned panchayat, along with SECURE Himalaya Project recently resolved to declare Yaya Tso as Ladakh's first BHS.
  - > Yaya Tso is a **nesting habitat** for a large number of birds and animals, such as the bar-headed goose, black-necked crane and brahminy duck.
  - It is one of the highest breeding sites of the black-necked crane in India.
- BHS are areas that are unique, ecologically fragile ecosystems having rich biodiversity.
  - > Under Biological Diversity Act (BDA) 2002, the State Governments are empowered to notify BHS, in consultation with 'local bodies', areas of biodiversity importance as **Biodiversity Heritage Sites.**
  - > Criteria for BHS: includes species richness, high endemism, presence of rare, endemic and threatened species, keystone species, species of evolutionary significance etc.
  - > There are 36 BHS in India, Mahendragiri hill (Odisha) is the last BHS added in 2022.
- About SECURE Himalaya:
  - > It is a joint project of Ministry of **Environment, Forest and Climate Change** and United Nations Development Programme (UNDP), funded by Global **Environment Facility.**
  - > It is aimed at conservation and protection of the high-altitude ecosystems of the Himalavas.



# ALSO IN NEWS

ALSO IN NEWS	
New START Treaty	<ul> <li>The New Strategic Arms Reduction Treaty (New START), is an agreement between the U.S. and Russia that sets limits on strategic arms.</li> <li>It has set central limits on strategic offensive arms and both sides are obligated to maintain those limits for as long as the treaty remains in force.</li> <li>It includes strategic nuclear warheads, launchers and heavy bombers.</li> <li>Signed in 2010, New START caps to 1,550 the number of nuclear warheads that can be deployed by Russia and US. In 2021 it was extended till 2026.</li> </ul>
Follow-on Public Offer (FPO)	<ul> <li>Recently, the Adani group called off its FPO.</li> <li>FPO, also known as a secondary offering, is the additional issuance of shares to investors after the initial public offering (IPO), i.e. stocks already listed on the stock exchange.</li> <li>Purpose: To diversify equity base, raise additional capital for expansion or pay off debt.</li> <li>Types of FPOs: <ul> <li>Dilutive FPO, i.e. issuance of additional fresh shares to the public to raise capital.</li> <li>Non-Dilutive FPO, i.e. issuance of existing private shares by largest shareholders.</li> <li>At-the-Market FPO, allowing companies to raise funds on the current market price of the shares in real-time.</li> </ul> </li> </ul>
<b>Bal Mitra</b>	<ul> <li>It is a WhatsApp chatbot launched by Delhi Commission for Protection of Child Rights.</li> <li>Chatbot is a computer program that uses artificial intelligence (AI) and natural language processing (NLP) to understand customer questions and give responses to them.</li> <li>It will enable communication between people and the child rights panel.</li> <li>It aims to provide authentic information on various matters related to children and their rights, and ensure confidentiality of the matters reported through it.</li> </ul>
کی ب کی ب Commission for Air Quality Management in NCR & Adjoining Areas (CAQM)	<ul> <li>CAQM recently held review meeting in view of significant improvement in overall Air Quality Index of Delhi.</li> <li>About CAQM:         <ul> <li>It was set up for Air Quality Management in NCR and Adjoining Areas for better co-ordination, research, identification and resolution of air quality problems.</li> <li>It was established under Commission for Air Quality Management in National Capital Region and Adjoining Areas Act, 2021.</li> <li>It replaced the now-dissolved Environment Pollution (Prevention and Control) Authority (EPCA).</li> </ul> </li> </ul>
Turnersuchus hingleyae (Thalattosuchian)	<ul> <li>Palaeontologists have discovered fossils of the ancient 'marine crocodile Turnersuchus hingleyae', which is the only complete thalattosuchian of its age.</li> <li>Thalattosuchian are ancient cousins of modern-day crocodiles.</li> <li>Its age dates back to the early Jurassic, Pliensbachian period, which was about 185 million years ago.</li> <li>As per Palaeontologists, they first appeared in the Triassic and survived the end-Triassic mass extinction.</li> </ul>
Draft Global Pandemic Agreement	<ul> <li>Commonly known as the pandemic treaty, the early draft from WHO talks of vaccine equity and pushes for:</li> <li>&gt; 20% reservation of any tests, vaccines or treatments developed for use in poorer countries.</li> <li>&gt; Waiver of Intellectual Property Rights during pandemics for wider access to life-saving drugs and vaccines.</li> <li>&gt; New WHO Global Pandemic Supply Chain and Logistics Network for better and fairer distribution of counter-measures.</li> <li>&gt; WHO Pathogen Access and Benefit-Sharing System to share pathogens and genomic sequences "within hours".</li> <li>• Vaccine equity means that vaccines should be allocated across all countries based on needs and regardless of their economic status.</li> </ul>





000000