Regent Education and Research Foundation Group of Institutions
Daily Current Affairs Synopsis
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(Useful for UPSC/WBPSC/SSC Exams.)

- Underwater mapping technology enables to **construct 3D images of ocean floor,** facilitating the mapping of **coral reef at depth 200 meters to 1,000 meters** where **sunlight doesn't penetrate.**
  - **More of ocean floor is covered by deep-sea reefs** than by tropical reefs, which are found at 0-30 meters depth with light penetration.
    - ♦ Great Barrier Reef in **Australia is the biggest tropical coral reef system** in world.

- Deep-sea corals are **colonies of small animals** that build a **common skeleton, which grows into many shapes and colors.** They **provide habitat** for sharks, swordfish, shrimp, fish etc.

- **Corals** are **invertebrate animals** belonging to a large group of colourful animals called **Cnidaria**.
  - Coral reefs are made up of colonies of hundreds to thousands of tiny individual corals, called **polyps**.
  - These marine animals have **hard exoskeletons made of calcium carbonate.**
  - In India, Coral reefs are found in **Gulfof Kutch, Gulf of Mannar, Andaman & Nicobar, Lakshadweep Islands** and **Malvan** (Maharashtra).

- **Importance of Corals: Protect coastlines** from storms and erosion;**Provide jobs** for local communities; Offer **opportunities for recreation** etc.

- **Threats to Corals:** Disturbance from oil and gas drilling, Ocean acidification, Unsustainable fishing, Coral harvestingetc.

Difference between Deep Sea Corals and Shallow Water Corals		
Specifications	**Deep Sea Coral**	**Shallow-water corals**
Diversity of corals	Low	High
Food	Rely either by **feeding on organic material** falling from surface or by **feedingon small plankton**	Rely on **photosynthetic algae** (tiny single-celled plants, known as **zooxanthellae**) that live within corals and provide their hosts with nutrition
Appearance	**White** in coloration	Brown and green colors due to algae
Structure formed	Groves in form of tree, feather, column, or fan shapes, etc.	Rock-like reefs

Ministry of Environment Forest and Climate Change (MoEFCC) notified Wildlife (Protection) Licensing (Additional Matters for Consideration) Rules, 2024

- These rules aim to **replace Wildlife (Protection) Licensing (Additional Matters for Consideration) Rules, 1983.**

- 1983 rules **prohibited issuing licences to trade in a wild animal categorised under Schedule I or Part II of Schedule II under Wildlife Protection Act (WPA) 1972.**
  - Licences were granted in **exceptional cases** with previous **approval of central government.**
  - This condition has been changed in 2024 rules.

- **New 2024 rules**
  - **No such licence shall be granted if it relates to any wild animal specified in Schedule I to the Act,** except with previous consultation of Central Government.

- **Chief Wildlife Warden or an Authorised Officer** issues the licence **based on parameters** like existing licences and implications of licence on hunting or trade of wild animals concerned etc.

- **Impact of New Rules:** Might **adversely affect mammals and birds enlisted in Schedule II,** as some of them are already endangered. Examples: Bulbuls, Falcons, Turtles, Geckos, Snakes, Bats etc.

- Earlier, **Wildlife Protection (Amendment) Act, 2022** has **reduced the number of Schedules from 6 (as of 1972 act) to 4.** (Refer Table)

Schedule I	Animal species with **highest level of protection.** **Example:** Blackbuck, Sloth Bear, Cheetah, Swamp Deer etc.
Schedule II	Animals with **lesser levels of protection.** **Example:** Nilgai, Indian Flying fox, Andaman Bulbul etc.
Schedule III	**Protected Plant species.** **Example:** Neel Kurinji, Pitcher plant, Tree turmeric etc.
Schedule IV	Specimens listed in **Appendices under Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).** **Example:** River Dolphin, Spider Monkeys, etc.

- Union Home Minister said that Indo-Myanmar border will **soon be fenced** and will **consider ending the FMR agreement.**
  - ⊖ Currently, **border with Myanmar (approx. 1643 km) is predominantly unfenced,** except for a small section in Manipur covering approximately 10 km.
- **FMR Agreement with Myanmar**
  - ⊖ It permits individuals residing within a 16 km radius of the border to traverse freely without requirement of Visa or Passport.

    It was **formalized in 2018** as part of **India's Act East Policy.**
- **Need to reconsider FMR:**

  Illegal immigration: Uncontrolled immigration of Chin people from Myanmar.

  Entry of soldiers from Myanmar: Exodus of junta soldiers seeking sanctuary in Mizoram.

  Ethnic violence and insurgency: Meitei community attributed last year's tensions to the perceived illegal migration of tribal Kuki-Chin communities.

  Surge in drug production in Myanmar: Linked to Myanmar's political turmoil, have security implications for the region. (report by UNODC)
- **Other aspects of India-Myanmar relations**

  Regional connectivity: Kaladan Multi-Modal Project, India-Myanmar-Thailand Trilateral Highway, etc.

  Multilateral cooperation: BIMSTEC, Mekong-Ganga Cooperation, etc.

  Defense cooperation: India-Myanmar Bilateral Army Exercise (IMBAX)

- These two species of mosquitofish are **Gambusia affinis** and **Gambusia holbrooki.** Both are detrimental **Invasive Alien Species.**

  Mosquitofish was **introduced into local water bodies to address mosquito** menace by states like Andhra Pradesh, Odisha and Punjab.

  Their **feeding habits** and **aggressive behavior in habitats** have led to extinction of endemic species.
- **Invasive Alien Species (IAS)** are animals, plants or other organisms that are introduced from outside their natural range, **negatively impacting native biodiversity, ecosystem services or human well-being.** Example, Water hyacinth, Lantana, etc.

  Globalization through **increasing trade, transport, travel and tourism** increases introductions of invasive species to new areas.
- **Impact of Invasive Alien Species**

  Economic Impact: Global economic cost of IAS exceeded $423 billion annually in 2019. **Food
  Security:** Invasive species are major cause of crop loss and degraded soil quality. **Ecological
  Impact:** 1 in 10 species on IUCN Red List are threatened by IAS.

  Heath Impact: They can serve as **vectors for infectious diseases. Example, Malaria, West Nile Fever etc.**
- **Efforts taken to control Invasive Species**

  Target 6 of Kunming-Montreal Global Biodiversity Framework eliminates IAS impacts on biodiversity by 2030.
  - ⊖ **Global Invasive Species Programme,** 1997.
  - ⊖ **Ramsar Convention.**

About Gambusia

- **Native** to U.S, it has been introduced as a **form of biological mosquito control.** It feeds on mosquito larvae.It lives in
- **Shallow waters and penetrates dense vegetation growth** where larvae and pupae hide.
- In 1928, Gambusia was first introduced in India during British rule.

Draft roadmaps for Critical Tech Sectors released by Ministry of Electronics and Information Technology (MeitY)

- Roadmaps were **prepared by Centre for Development of Advanced Computing (C-DAC)** for conducting **indigenous research and development** in 5 critical tech sectors.
  - C-DAC is premier R&D organization of the MeitY for carrying out R&D in IT, Electronics and associated areas.
- **Key highlights of the Roadmaps (Sector-wise)**

  Quantum Technologies
  - Standardisation of Quantum Technologies by 2033.
  - Quantum computation and communication by 2034.

  Cryptography
  - Cryptography for small resource-constrained devices by 2028.
  - Create centre of excellences for cryptography by 2034.

  Mobile Security
  - Mitigating mobile security threats from applications by 2030.
  - Indigenous ecosystem for Secure OS and Mobile hardware by 2030.

  Internet of Things (IoT) security
  - Digital certificate for IoT security by 2030.
  - IoT application security by 2047.

  Cyber Forensics
  - Financial tech forensic by 2030.
  - Privacy protection and Quantum forensics by 2047.

- **Other initiatives for these critical Tech sectors**

  US – **India Initiative on Critical and Emerging Technology (iCET)**

  INDIAai – National AI Portal of India

  National Strategy for Artificial Intelligence by NITI Aayog

  National Quantum Mission, etc.

Labour rules for workers abroad

- Trade Unions have opposed UP and Haryana governments' recruitment of workers to work in Israel, primarily for construction activities.
  - They have cited that it is against Indian ethos of bringing back citizens from conflict zones.
- **Issues faced by migrant labourers**

  Vulnerability to regional conflicts: Risk of conflict and violence due to volatile political landscape. e.g., Ongoing Israel – Hamas conflict.

  Exploitation and unfair labour practices: Wage theft, poor working conditions, etc., due to limited legal knowledge and language skills.

  Denial of social security: Due to lack of portability, etc.

  Other issues: Lack of proper accommodation, poor standard of living, etc.

- **Measures taken by India for protection of migrant labourers**

  Bilateral and multilateral arrangements: India has signed Labour Manpower Agreements (LMAs) with six West Asian countries including Kuwait, Oman, etc.

  Welfare programmes: National Pension scheme for NRIs, Indian community welfare fund, etc.

  India has signed **Global Compact for Safe, Orderly and Regular Migration (2018).**

  Other measures: e-Migrate Application system, MADAD portal for grievance redressal, etc.

ILO conventions for protection of migrant workers

Migration for Employment Convention (Revised), 1949 (No. 97): To maintain an adequate and free service to assist migrants for employment.

Migrant Workers (Supplementary Provisions) Convention, 1975 (No. 143): For illegally employed migrant workers.

Note: India has not ratified both conventions.

Mitakshara Law

- Supreme Court ruled that c**hildren born out of void/ voidable marriage** can't be denied **share in parent's property.**
- Court concluded that Hindu Succession Act, 1956 recognise institution of joint Hindu family governed by Mitakshara law.
- **Mitakshara Law**
  - It is one of the two major Hindu law school (other being Dayabhaga) that **governs succession of property in Hindu Undivided Family.**
  - It holds that son, grandson, and grandson's son have **right to family property through birth.**
  - It also recognizes right of daughters to inherit property, with certain limitations.

Sri Ranganathaswamy Temple

Recently, Prime Minister offered prayers at **Sri Ranganathaswamy Temple.**

About Sri Ranganathaswamy Temple

- Also known as **Thiruvaranga Tirupati,** is dedicated to **Ranganatha (reclining form of Lord Vishnu).**
- It is constructed in **Dravidian style** and temple Complex has **21 sculpted Gopurams, 50 sub-shrines,** and **9 sacred pools (tanks).** It is
- not just a temple but a temple-town, unique in its **Sapta-Prakaram formation and one of 108 Divya Desams** dedicated to Lord Vishnu.
- Situated on **island of Srirangam** bounded by **Cauvery and Kollidam (tributary of Cauvery) Rivers.**

Binturong (Arctictis binturong) and Small-clawed otter (Aonyx cinereus)

- **These two new mammalian species** were added to list of fauna in **Assam's Kaziranga National Park.**
  - Both are listed under **Schedule I of Wildlife Protection Act 1972.**
- **Binturong (Bearcat)** largest civet in India.
  - **Native: South-East Asia.**
  - **Distribution:** India (Meghalaya, Sikkim), Indonesia, Thailand, Malaysia, etc.
    Conservation: Vulnerable (IUCN); **Appendix III** (CITES).
- **Small-clawed otter** (Asian Small-clawed Otter) primarily **found in freshwater habitats.**
  - **Distribution:** India (West Bengal, Assam, Arunachal Pradesh, Karnataka, Tamil Nadu, and Kerala), Southeast Asia and Southern China.
  - **Conservation: Vulnerable** (IUCN); **Appendix I** (CITES).

AYUSH Diksha

- Central government laid foundation stone of **"AYUSH Diksha" at Central Ayurveda Research Institute (CARI), Bhubaneswar.**
  - CARI is a unit under Central Council for Research in Ayurvedic Sciences (CCRAS).
- It is first-of-its-kind **center for the development of human resources** for AYUSH professionals.
  - It will provide **teacher-training program** to all the stakeholders of AYUSH, in general, and Ayurveda in particular at national level.

Madhika Language

- Currently, **it has only 2 speakers** and is on the brink of extinction.
- **About Madhika**
  - Spoken by **Chakaliya Community** and has no script.
  - It is **largely influenced by Havyaka Kannada (old form of Kannada).**
  - It is a **blend of Telugu, Tulu, Kannada, and Malayalam.**
- **Initiatives to protect endangered languages**
  - Scheme for Protection and Preservation of Endangered Languages (SPPEL).
  - Establishment of Centres for Endangered Languages in Central Universities.

Aravalli Hills

- Apex court opined that Rajasthan **can stop mining activities in Aravalli range** if they are found to be detrimental to environment.
- **Aravalli Hills**
  - One of the **oldest fold mountains o**f world.
  - Located in north-west India i.e. States **(Gujarat, Rajasthan, Haryana) and Union territory (Delhi)** stretching from south-west and north-east direction.
  - Highest peak is **Guru Shikhar**, near Mount Abu Rajasthan. **Rivers: Banas and Sahibi** (tributaries of Yamuna) and **Luni River** originate from Aravalli.
    Acts as **water divide between Indus and Ganga Basins.**
    Source of Rich Mineral: Zinc, Gold, Silver, Copper, Dolomite, Marble etc.

Ingenuity (Mars Helicopter)

NASA has regained its contact with Ingenuity.

About Ingenuity

- It is the **first aircraft** to make a **powered, controlled flight on another planet.**
- **Solar-powered,** able to charge on its own. It has **Wireless communication system.**
- It is carried along with **Perseverance rover** that was launched under Mars 2020 mission.

Flight environment: Thin atmosphere, less than 1% as dense as Earth's.

Aarogya Maitri Cube under Project BHISHM (Bharat Health Initiative for Sahyog, Hita and Maitri)

Two arogya maitri disaster management cubes developed under Project BHISHM have been deployed in Ayodhya.

- It is **tailored to treat upto 200 casualties.**
- It is **equipped with innovative tools** designed to **enhance disaster response** and medical support during emergencies. It **integrates Artificial Intelligence** and data analytics to **facilitate effective coordination, real-time monitoring,** and efficient management of medical services in the field.

These are **robust, waterproof, and light, designed for various configurations,** making them ideal for diverse emergency scenarios.

Rash Behari Bose (1886-1945)

- He was remembered on his death anniversary.
- **Contributions**
  - Was an active member of **Yugantar group of revolutionaries** under leadership of Motilal Roy. Acted as an **effective link between revolutionaries of Punjab and United Provinces and Bengal.** Involved in
  - **Delhi Conspiracy case** (bomb attack on Viceroy Lord Hardinge), 1912.
  - Founded the **Indian independence League** (1942) in Tokyo.
  - Played key role in **Gadar Movement** and in formation **Azad hind fauj (Indian National Army).**
- **Values:** Patriotism, Leadership, Courage, Perseverance, etc.