Prelim Bits 07-08-2022 & 08-08-2022 | UPSC Daily Current Affairs

Taiwan Strait

China continued its live-fire military exercises in Taiwan Strait, while also announcing new exercises in the Yellow Sea.

- Taiwan Strait or Formosa Strait separates the island of Taiwan (Formosa) and continental Asia (coast of China's Fukien province).
- It is an **arm of the Pacific Ocean** found in the South China Sea.
- It is 160 km wide at its narrowest point. It reaches a depth of about 70 m.
- It contains the Pescadores Islands (controlled by the government of Taiwan). The area lies in a typhoon zone.
- It is the primary shipping route between China and Japan, and Europe.

Yellow Sea

- Yellow Sea or Huang Hai or Hwanghae is a large inlet of the western Pacific Ocean lying between mainland China and the Korean peninsula.
- It is situated to the north of the East China Sea.
- The Bo Hai Sea is the north-western extension of the Yellow Sea. It is connected to the Yellow Sea via the Bohai Strait.
- The Bo Hai (Gulf of Chihli) is located in the northwest part of the sea. It is found between the Liaodong Peninsula to the north and the Shandong Peninsula to the south.

Reference

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Nadis of Rajasthan

Nadis of western Rajasthan are brimming with water amid the arrival of rains.

- Popularly called *nadis* or *talabs* (village ponds), these are sleepy countryside - traditional water harvesting structures.
- These are shallow depressions strewn across the rural landscape in the arid regions of Jodhpur and Barmer districts.

- They are used for storing water from an adjoining natural catchment during the rainy season.
- The rural communities utilise these structures for storage of rain water with the application of traditional knowledge and locally available materials in view of the highly variable and scanty rainfall in the State.
- The water collected in these tanks will quench the thirst of cattle and human beings, and wild animals during the dry months of the year.
- But several of these *nadis* have fallen into disrepair, while others are unable to store water because of cracks in their embankment walls.
- As the *nadis* are mostly found in the *Orans* of the villages, the *Orans* are now mini-oases in an otherwise arid landscape.

The Orans are the sacred forest groves in the villages. They are associated with the local deities.

Traditional Water Conservation Systems		
System Name	**Details**	**Location**
Jhalara	Rectangular-shaped stepwells that have tiered steps on 3 or 4 sides	Jodhpur City, Rajasthan
Talab /Bandhi	Reservoirs that store water for household consumption and drinking purposes. *Talai* - A reservoir with an area less than 5 *bighas* *Bandhi* - A medium sized lake *Sagar* or *samand* - Bigger lakes	Natural Talabs in the Bundelkhand region. Man made Talabs in Udaipur.
Bawari	Unique stepwells that were part of the ancient networks of water storage.	Rajasthan
Taanka	Traditional rainwater harvesting technique indigenous to the Thar desert region of Rajasthan.	Rajasthan
Ahar Pynes	Traditional floodwater harvesting systems indigenous to South Bihar.	Bihar
Johads	Small earthen check dams that capture and store rainwater	Haryana, Rajasthan, Punjab, and western UP (Johads) Karnataka (Madakas) Odisha (Pemghara)
Panam Keni	Wooden cylindrical Wells used by the Kuruma tribe of Wayanad	Kerala
Zing	Small tanks that collect melting glacier water	Ladakh
Kuhls	Surface water channels	Mountainous regions of Himachal Pradesh
Zabo or Ruza system	Rainwater that falls on forested hilltops is collected by channels that deposit the run-off water in ponds created on the terraced hillsides.	Nagaland
Jackwells	Low-lying region of the Great Nicobar Islands is covered with jackwells (pits encircled by bunds made from logs of hard wood). It is used by the Shompen tribe	Great Nicobar Islands

Ramtek Model	-	Maharashtra
Pat System	-	Madhya Pradesh
Eri	Tank system	Tamil Nadu

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Indian Virtual Herbarium

Recently, the Union Environment Minister inaugurated India's largest online herbarium database, the 'Indian Virtual Herbarium' web portal.

- Indian Virtual Herbarium is the **biggest virtual database of flora** in the country, as it contains details of about one lakh plant specimens.
- It was developed by the scientists of the **Botanical Survey of India** (BSI).
- Each record in the digital herbarium includes an image of the preserved plant specimen, scientific name, collection locality and date, collector name, and barcode number.
- The digital herbarium also includes features to extract the data State-wise and users can search plants of their own States which will help them to identify regional plants and in building regional checklists.

The Botanical Survey of India, by 2024, plans to provide a platform to all the herbaria in the country, so that they can display their herbarium collection on the platform.

- The digital herbarium has some of the oldest botanical specimens dating as early as 1696.
- **Categories** - The herbarium provides information on plants in different categories such as Cryptogams (spore bearing plants). Phanerogams (seed bearing plants).
- Both the groups are again divided into two categories which includes general specimen and type specimens.

Herbarium

- The Herbarium is a collection of dried plant specimens that are stored, catalogued, and arranged by family, genus and species for study.
- Herbaria are the "dictionaries" of the plant kingdom and provide comparative material that is indispensable for studies in plant taxonomy and systematics.
- Herbarium collections are often housed in botanical gardens, arboretums, natural history museums, and universities.

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National Apprenticeship Promotion Scheme

- The National Apprenticeship Promotion Scheme (NAPS) was launched by the Ministry of Skill Development and Entrepreneurship in 2016.
- It aims to **promote apprenticeship training** in the country by providing stipend support to the apprentices.
- Further, the objectives of the NAPS are as under:
    1. To develop skilled manpower for the industry by promotion of on-the-job experiential training.
    2. To encourage establishments to enroll apprentices by sharing partial stipend support to the apprentices.
    3. To provide up-skilling opportunities for candidates who have undergone short-term skill training.
    4. To encourage enrolment of apprentices in small establishments (MSMEs), and those located in underserved areas like in aspirational districts and in North-East region.
- **Components of the Scheme**
    1. Sharing of 25% of prescribed stipend subject to a maximum of Rs. 1500/- per month per apprentice with the employers.
    2. Sharing of basic training cost up to a maximum of Rs. 7,500 per apprentice.
- Instead of reimbursement of stipends to the establishment, it is proposed to transfer the amount to the bank account of apprentices by the Government under Direct Benefit Transfer Scheme (DBT).
- **Implementing agencies** - State Apprenticeship Advisers (SAAs) and Regional Directorates of Apprenticeship (RDATs) will act as implementing agencies in their respective State/Regions.

National Apprenticeship Training Scheme (NATS)	**National Apprenticeship Promotion Scheme (NAPS)**
Apprenticeship training for engineering graduates, diploma holders, general steam graduates, Technician and Technician (Vocational) apprentices.	Apprenticeship training for the rest of the categories of apprentices.
Implemented by the Department of Higher Education, Ministry of Education (MoE)	Implemented by the Ministry of Skill Development and Entrepreneurship (MSDE)

Reference

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CSIR and its Achievements

For the first time in its 80-year history, the Council of Scientific and Industrial Research has appointed a woman Director-General.

- The Council of Scientific & Industrial Research (CSIR) was set up as an autonomous body under the Ministry of Science and Technology in 1942.
- It operates as an autonomous body through the Societies Registration Act, 1860.

- It is the largest research and development (R&D) organisation in India.
- The CSIR covers a wide spectrum of science and technology - oceanography, drugs, genomics, biotechnology, nanotechnology, IT, etc.,
- The Prime Minister is the ex-officio President and the Union Minister of Science and Technology is the ex-officio Vice President.
- The CSIR is funded by the Ministry of Science and Technology.
- CSIR has put in place **CSIR@80**: Vision & Strategy 2022. CSIR's mission in this strategy is to build a new CSIR for a new India.

According to the Scimago Institutions Ranking World Report 2021, the CSIR (ranked 37th) is the only Indian organization among the top 100 global government institutions.

Recent Achievements

- Pyrene Remediation, Steel Slag Road, HANSA-NG, UV-C Air Duct Disinfection System, CSIR-CMERI Oxygen Enrichment Unit
- FELUDA Covid-19 Test
- Purple Revolution, CSIR Floriculture Mission, Heeng Cultivation Project

Energy and Environment sector

- **Solar tree** was designed to occupy minimum space to produce clean power. To know more click on World's Largest Solar Tree
- India's first lithium ion battery fabrication facility based on indigenous novel materials has been established.

Strategic Sector

- **Drishti transmissometer** is a visibility measuring system that provides information to pilots on visibility for soft landing and take-off operation.
- **Head-Up-Display** (HUD) is developed for Indian Light Combat Aircraft Tejas to aid the pilot in flying the aircraft and critical maneuvers include weapon training.
- Design and Development of indigenous **Gyrotron** for nuclear fusion reactor.
- To know more about other major achievements of the CSIR, click here.

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