

### CENTRAL WATER COMMISSION (CWC)

The Kerala state government urged the Centre to speed up measures for building a new dam at Mullaperiyar in Idukki district at a meeting with the Central Water Commission recently.



#### About the Central Water Commission (CWC):

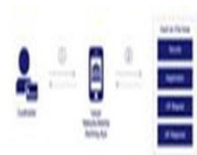
- It is a **premier technical organisation** in India in the field of water resources.
- It is presently functioning as an **attached office of the Ministry of Jal Shakti**, Department of Water Resources, River Development, and Ganga Rejuvenation, Government of India.
- **Functions:**
  - The Commission is entrusted with the general responsibilities of **initiating, coordinating, and furthering, in consultation with the State Governments** concerned, schemes for **control, conservation, and utilisation of water resources** throughout the country for the purposes of Flood Control, Irrigation, Navigation, Drinking Water Supply, and Water Power Development.
  - It also **undertakes the investigation, construction, and execution** of any such schemes as required.
- It is **headed by a Chairman**, with the **status of Ex-Officio Secretary** to the Government of India.
- The work of the Commission is divided among **three wings** namely, the **Designs and Research (D&R) Wing**, the **River Management (RM) Wing** and the **Water Planning and Projects (WP&P) Wing**.
- Each wing is placed under the charge of a full-time member with the status of Ex-Officio Additional Secretary to the Government of India.
- **Headquarters: New Delhi**

## Key Facts about Mullaperiyar Dam:

- It is a **masonry gravity dam** situated on the **Periyar River** in Thekkady, Idukki district, in **Kerala**.
- It is located 881 m above sea level, on the **Cardamom Hills of the Western Ghats**.
- The dam is built at the **confluence of the Mullayar and Periyar rivers**.
- Its construction began in 1887 and was **completed in 1895**. The construction was carried out by the **British Corps of Royal Engineers** under the leadership of Pennycuik.
- The dam was **constructed with limestone and "Surkhi"** (burnt brick powder and a mixture of sugar and calcium oxide).
- The dam's purpose was to divert the waters of the west-flowing River Periyar eastward to the arid rain shadow regions of the Theni, Madurai, Sivaganga, and Ramanathapuram districts of Tamil Nadu.
- The **Periyar National Park** is located around the dam's reservoir.
- Although the dam is located in Kerala, it is **operated and maintained by the neighbouring state of Tamil Nadu**. It was **according to a 999-year lease agreement** made during British rule, that the operational rights were handed over to Tamil Nadu.

## WHAT IS CARD-ON-FILE TOKENIZATION?

In order to make digital payments more secure, safe and sound the Reserve Bank of India (RBI) has now enabled card-on-file tokenization (CoFT) through card issuing banks and institutions.



### About Card-on-File Tokenization:

- Tokenization refers to **replacement of actual credit and debit card details with an alternate code called the "token"**.
- It is a combination of **card, token requestor and device**.
- The card detail when stored with a merchant is known as card-on-file (CoF).

- This token is a **randomly generated string of characters** that has no intrinsic value and is meaningless outside of the context of a specific transaction.
- The token is used as a surrogate for the actual card details, making it more secure to store and transmit.

## Requirements for enabling CoFT through card issuers:

- Generation of CoFT tokens for a card can be **enabled through mobile banking and internet banking channels.**
- The token can be generated only on explicit customer consent and with AFA (additional factor authentication) validation.
- The **cardholder may tokenize the card at any time** of their convenience, either on receipt of the new card or at a later stage.
- The cardholder can select the merchants with whom he/she wishes to maintain tokens.
- The **card token so issued** may be either by **the card network or the issuer or both.**
- **Advantage:**
  - Tokenization replaces a debit or credit card's 16-digit number with a unique token that is specific to just your card and is valid for one merchant at a time.
  - The token **masks the true details of your card**, so in case there is a data leak from the merchant website, **the fraudster cannot misuse the card.**

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## INS IMPHAL | CAPABILITIES, STRATEGIC SIGNIFICANCE OF VISHAKHAPATNAM CLASS OF DESTROYERS

### Why in News?

- INS Imphal (Pennant D68), the third of four warships of **Project 15B** that together form the Visakhapatnam class stealth-guided missile destroyers, has been commissioned into the Indian Navy on 26<sup>th</sup>

## About Project 15B:

- Between 2014 and 2016, the Indian Navy commissioned three guided missile destroyers of Kolkata class under a project codenamed ‘15A’.
- The **Visakhapatnam-class destroyers**, also classified as the **P-15 Bravo class**, or simply P-15B, is a class of guided-missile destroyers currently being built for the Indian Navy.
  - The Destroyers **come next only to an Aircraft Carrier (INS Vikramaditya)** in terms of their reach and endurance.
  - The Visakhapatnam class is an upgraded derivative of its predecessor, the **Kolkata class**, with improved features of stealth, automation and ordnance.
- A total of four ships are being built by Mazagon Dock Limited (MDL), under the **Make in India**
  - These four ships are **Visakhapatnam, Mormugao, Imphal, Surat**.
- The first vessel of the class, **INS Visakhapatnam** was commissioned in November 2021. The second ship **INS Mormugao** in December 2022.

## About INS Imphal:

- These ships are equipped with **BrahMos supersonic cruise missiles** and long-range **Surface-to-Air Missiles (SAM)**.
- The ship has several indigenous weapons systems like medium range Surface-to-Air Missile (SAMs), indigenous torpedo tube launchers, anti-submarine indigenous rocket launchers and 76-mm super rapid gun mount.
- The class also has a **total atmospheric control system (TACS)** that offers protection to the crew from chemical, biological and nuclear threats.
- It can operate two multi-role helicopters, including Sea King or HAL Dhruv.

## WHAT IS THE COLOMBO SECURITY CONCLAVE (CSC)?



**India’s National Security Adviser (NSA) recently took part in the sixth NSA meeting of the Colombo Security Conclave (CSC).**

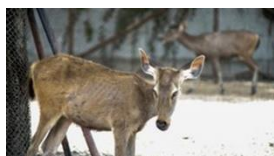
## About Colombo Security Conclave (CSC):

- It is a regional security grouping comprising India, Sri Lanka, the Maldives and Mauritius.
- **Origin:**
  - The CSC, initially known as the Trilateral for Maritime Security Cooperation, evolved out of trilateral meetings between NSAs and Deputy NSAs from India, Maldives, and Sri Lanka, starting in 2011.
  - It came to a standstill after 2014 due to rising tensions between India and the Maldives.
  - After its revival and re-branding as the CSC in 2020, Mauritius was added as a member of the grouping.
- **Current members** of CSC include India, Maldives, Mauritius, and Sri Lanka, while Bangladesh and Seychelles are the two observer nations.
- Cooperation under the conclave focuses on five pillars – maritime safety and security, countering terrorism and radicalisation, combating trafficking and transnational organised crime, cyber-security and protection of critical infrastructure, and humanitarian assistance and disaster relief.
- A permanent secretariat, based in Colombo, was established in 2021 to coordinate all activities and implement decisions made at the NSA level.

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## WHAT IS CHRONIC WASTING DISEASE (CWD)?

In a concerning development, scientists are sounding the alarm about the potential spread of a condition known as chronic wasting disease (CWD) from animals to humans.



### About Chronic Wasting Disease (CWD):

- CWD, also known as **Zombie deer disease**, is a neurological disorder affecting deer and other cervids (members of the deer family) caused by the abnormal growth of a misfolded protein called a prion.

- This prion causes **healthy brain proteins to become abnormal**, leading to a range of symptoms.
- CWD is **contagious**; it can be transmitted freely within and among cervid populations.
- **Transmission:** CWD is transmitted directly through **animal-to-animal contact** and indirectly through **contact with objects or environments contaminated with infectious material** (including saliva, urine, faeces, and carcasses of CWD-infected animals).
- **Symptoms:** It may **take over a year before an infected animal develops symptoms**, which can include drastic **weight loss (wasting)**, **stumbling**, **listlessness**, and other neurologic symptoms.
- CWD is particularly concerning because it has the **potential to affect both animals and humans**, with the possibility of transmission through the consumption of infected meat.
- CWD **can affect animals of all ages**, and some infected animals **may die without ever developing the disease**.
- CWD is **fatal** to animals, and there are **no treatments or vaccines**.

## IONOSPHERE

A team of scientists from the Indian Institute of Geomagnetism (IIG) have examined the long-term seasonal ionospheric observations at Indian Antarctica station Bharati between 2010 and 2022 and also with solar activity following the Sun's 11-year cycle.



### About Ionosphere:

- It is a part of Earth's upper atmosphere, which is partially **ionised**, extending from **100-1000 km**.
- The ionosphere **at polar regions is highly dynamic** and acts as a major energy sink for space weather events, and related processes in magnetosphere-ionosphere systems as the magnetic field lines are vertical in this region.
- It is an interesting layer which **overlaps the mesosphere, thermosphere, and exosphere**.



- It's a very active part of the atmosphere, and it grows and shrinks depending on the energy it absorbs from the sun.
- The ionospheric observations in Antarctica are few compared to the Arctic region due to geographic limitations and limited number of stations.

## Key points:

- Decade-long ionospheric observations at Bharati station, Antarctica, found a substantial seasonal variation with maximum **total electron count** (TEC) in equinoctial months followed by the summer and winter.
- The scientists attributed the peak ionisation to particle precipitation and transportation of convectional plasma from high latitudes.
- Also, the maximum ionospheric density in the summer months where 24 hours sunlight is present (polar days), was about twice more than that of polar nights at the Bharati region.
- **Significance of the study:** Such long-term studies can help understand effects of the ionosphere on **satellite-based navigation and communication systems** and to mitigate them.

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## VEER BAL DIWAS2023

### Why in news?

- Recently, PM Modi said India is now coming out of the mindset of slavery and has full faith in its people, their abilities and heritage.
- He made those remarks while speaking at a '**Veer Bal Diwas**' event to commemorate the martyrdom of two sons of Guru Gobind Singh.
  - This was the second celebration of the Veer Bal Diwas.

### What is Vir Bal Diwas?

- On 9th January 2022, the day of the Prakash Purab of Sri Guru Gobind Singh Ji, the Prime Minister had announced that **26th December** would be observed as 'Veer Bal Diwas'.

- This was announced to mark the martyrdom of sons of Sri Guru Gobind Singh - Sahibzadas Baba Zorawar Singh Ji and Baba Fateh Singh Ji.

## **Sacrifices made by the sons of Guru Gobind Singh**

- While two of Guru Gobind Singh's sons were killed fighting the Mughals, two other sons were bricked alive on the orders of Aurangzeb's governor of Sirhind.
  - The two younger sons, **Sahibzada Zorawar Singh ji and Sahibzada Fateh Singh ji**, attained martyrdom after being sealed alive in a wall.
- Incomparable sacrifice and patriotism of the four Sahibzadas and Mata Gujri to protect the country and religion is the heritage of the country.
- Veer Baal Diwas is observed on the same day the two younger sons, Sahibzada Zorawar Singh ji and Sahibzada Fateh Singh ji, attained martyrdom.

## **Who was Guru Gobind Singh?**

- Guru Gobind Singh, born as Gobind Rai, was the tenth Sikh Guru, a spiritual leader, warrior, poet and philosopher.
  - He was born on January 5, 1666 in Patna Sahib, Bihar in the Sodhi Khatri family of the ninth Sikh guru, Guru Tegh Bahadur and his wife Mata Gujri.
- He formally became the leader and protector of the Sikhs at the age of nine after the death of his father.
  - His father was killed by Aurangzeb for refusing to convert to Islam.

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## **GROUNDING CHARTER FLIGHT RETURN TO MUMBAI: WHAT RULES FACE THOSE WHO STAYED BACK IN FRANCE**

### **Why in News?**

- A charter plane grounded in France for a human trafficking investigation reached Mumbai with 276 Indians aboard.

### **What Happened at the French Airport?**



- **The passengers had been heading to Nicaragua** but their flight was stopped at the Varty airport in France, where it had stopped for refuelling on its journey from Fujairah in the UAE to Managua, Nicaragua.
- **It is not yet clear why the Indians were flying to Nicaragua**, and if their final destination was the US or Canada, which people often enter illegally from South American countries.
- **25 of the passengers did not return to India**, instead requesting asylum in France and were transferred to a special zone in Paris' Charles de Gaulle airport for asylum-seekers.

## What Benefits does France Offer Asylum-Seekers?

- **France has had a generous system for asylum-seekers**, providing them up to 300 euros a month while they wait for their papers to be processed.
  - **They can apply for housing** in the hundreds of asylum-seeker housing projects across the country, and cheap meals are often easily available at food banks.
  - **They also get free health insurance** while their application is being reviewed. **Foreign residents get social security benefits**, which includes assistance in paying rent, childcare, etc.
  - However, all of this is set to change with a new, tougher law on immigration, which was cleared in the French Parliament recently.
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