

## Prelim Bits 06-01-2024 | UPSC Daily Current Affairs

### Wetland City Accreditation (WCA)

MoEF&CC has submitted 1<sup>st</sup> 3 Indian cities Indore, Bhopal & Udaipur for Wetland City Accreditation (WCA) under the Ramsar Convention on Wetlands.

- **WCA** - A **voluntary scheme** that recognizes cities which have taken exceptional steps to safeguard their urban wetlands.
- **Establishment** - During the Ramsar Convention COP12, 2015.
- **Objectives** - To recognize the importance of wetlands in urban and peri-urban environments and to take appropriate measures to conserve and protect these wetlands.
- **Significance** - Cities can **gain international recognition** and **positive branding opportunities** for their efforts and provides sustainable socio-economic benefits for local populations.
- It will **generate public awareness** about wetland conservation and also help in implementation of Amrit Dharohar in India which aims to foster sustainable ecosystem development with the help of local communities.

	Indore	Bhopal	Udaipur
<b>Location</b>	Madhya Pradesh	Bihar	Rajasthan
<b>Ramsar Site (or) Wetland</b>	Sirpur Lake, a bird sanctuary	Bhoj Wetland with Jal Tarang (wetland interpretation centre)	5 wetlands -Pichola Fateh Sagar Rang Sagar Swaroop Sagar Doodh Talai
<b>Efforts &amp; Recognitions</b>	-Wetland mitras for Sarus Crane. -Cleanest city in India. -India's Smart City Award 2023.	-Wetland mitras for Sarus Crane. -Lake Conservation Cell -Draft City Development Plan 2031	

### 6 Criteria for getting WEA

- It has one or more Ramsar Sites, or other significant wetlands which provide(s) a range of ecosystem services to the city;
- It has adopted measures for conservation of wetlands.
- It has implemented wetland restoration measures.
- It considers the challenges and opportunities of integrated spatial/land-use planning for wetlands under its jurisdiction.
- It has raised public awareness about the values of wetlands and enabled public participation in decision-making processes.
- It has established a local committee to support the preparation work and the implementation of measures.

## References

1. [PIB| India's nomination for WEA](#)
2. [Ramsar| Criteria for getting WEA](#)

## Plasma waves

*The researchers at Indian Institute of Geomagnetism (IIG) have examined the existence of high-frequency plasma waves in the Martian plasma environment.*

*IIG is an autonomous institute of Department of Science and Technology.*

- **Plasma waves** - A ***type of electromagnetic wave*** that propagates through plasma, a state of matter.

*Plasma is formed when a gas is heated to high temperatures or subjected to strong electric fields, causing its atoms to become ionised by either losing or gaining electrons.*

- **In earth** - It is observed in the [Earth's magnetosphere](#) as a *short-time scale fluctuations* in the electric and magnetic field.
- **Role** - In the *energization and transport of the charged particles* in the Earth's magnetosphere.
- Some act as a *cleaning agent for the Earth's radiation belt*, which is hazardous to our satellites.
  - **Example:** [Electromagnetic ion cyclotron \(EMIC\) waves](#)

## Plasma waves in Mars

- **Recent Study** - It was carried out by IIG scientists in collaboration with scientists from Japan, USA, and UAE *to understand the existence of plasma waves in unmagnetized planets like Mars.*

*Mars does not have any intrinsic magnetic field therefore the high-speed solar wind coming from the Sun interacts directly with the Mars atmosphere, like an obstacle in the flow.*

- **Observation** - By using high-resolution electric field data from the [MAVEN spacecraft of NASA](#) when it crossed the magnetopause boundary and entered the magnetosheath region.
- **Cause** - It could be due to *electron oscillations* with respect to the background magnetic field in the magnetosheath region of the Mars.
  - **Langmuir waves** - Parallel oscillations

- **Upper-hybrid type waves** - Perpendicular oscillations
- **2 distinct wave modes** - Either *broadband or narrowband type* with distinguishable features in the frequency domain.
- **Significance** - It provides a tool to explore *how electrons gain or dissipate energy in the Martian* plasma environment.

## Reference

[PIB| High Frequency Plasma Waves in Martian Upper Atmosphere](#)

## Amrit Dharohar Scheme

Recently, Ministry of Tourism started training in Bhitarkanika National Park, Odisha under Amrit Dharohar Capacity Building Scheme.

- **Goal** - To promote unique conservation values of Ramsar Sites’.

**Ramsar Convention** of 1971, an intergovernmental treaty for conservation and wise use of wetlands, was ratified by India in 1982.

- **Purpose** - To maintain healthy Ramsar Sites which
- Provide *water and food security* and *buffer the landscape* from floods, droughts, and extreme events.
- Generate *local employment and support livelihoods*
- *Provide habitats* for species Maintain and enhance *carbon sinks*
- Conserve and *celebrate rich cultural heritage*
- **Timeline** - From June 5, 2023 ***till June 5, 2026***.

*June 5 is celebrated as World Environment Day.*

- **Implementation** - In convergence with Central Government, State Wetland Authorities, institutions and individuals.

## Amrit Dharohar Capacity Building Scheme

- **Aim** - To *enhance livelihood opportunities* for local communities.
- **Implemented by** - **IITTM**, an autonomous body under Ministry of Tourism, in ***collaboration with MoEFCC***.
- **Training programmes** - Alternative Livelihood program (ALP) and Paryatan Navik Certificate (PNC).
- **Implementation** - In 1st phase, 5 Ramsar sites were identified.
  - Sultanpur National Park - Haryana
  - Sirpur wetland - Madhya Pradesh
  - Yashwant Sagar - Madhya Pradesh

- Bhitarkanika National Park - Odisha
- Chilika Lake - Odisha



## References

1. [PIB| Training programmes under Amrit Dharohar Scheme](#)
2. [Indian Wetlands| Amrit Dharohar Implementation Strategy](#)

## PRITHvi Vigyan (PRITHVI)

*The Union Cabinet Chaired by the Prime Minister of India has approved the overarching scheme 'PRITHvi Vigyan' (PRITHVI).*

- **Implemented by** - Ministry of Earth Sciences (MoES).

*The research & development and operational (services) activities of MoES are carried out by 10 Institutes of MoES.*

- **Timeline** - **2021-26**, at an overall cost of **Rs. 4,797 crore**.
- It *encompasses 5 ongoing sub-schemes* namely
  - **ACROSS** - Atmosphere & Climate Research-Modelling Observing Systems & Services
  - **O-SMART** - Ocean Services, Modelling Application, Resources and Technology
  - **PACER** - Polar Science and Cryosphere Research

- **SAGE** - Seismology and Geosciences
- **REACHOUT** - Research, Education, Training and Outreach
- **Objectives**
  - To *observe* the atmosphere, ocean, geosphere, cryosphere and solid earth.
  - To *predict* weather, ocean and climate hazards.
  - To *explore* polar and high seas regions of the Earth.
  - To do *sustainable harnessing* of oceanic resources.
  - To *translate the knowledge* of Earth systems science into services for societal, environmental and economic benefit.

**Earth System Sciences** deal with all the 5 components of the earth system namely atmosphere, hydrosphere, geosphere, cryosphere, and biosphere and their complex interactions.

- **Significance** - It will enable *development of integrated multi-disciplinary* earth science research and will *help in addressing the grand challenges* of weather and climate, ocean, cryosphere, seismological science and services.

## Reference

[PIB| Approval for PRITHVI Scheme](#)

## Yeonpyeong Island

North Korea has fired more than 200 rounds of artillery shells off its west coast, towards the South's Yeonpyeong Island.

- **Yeonpyeong Island** - It is home to a *military base and a small civilian population* of about 2,000 people **in South Korea**.
- **Geography** - It lies 3km (2 miles) from the disputed maritime border in the Yellow Sea and 12km from the North Korean coast.



*Yeonpyeong Island is close to what is known as the ‘Northern Limit Line,’ the de facto maritime border that separates the two Koreas.*

- **Military events** - It has been the scene of ***inter-Korean naval clashes*** over the years
- In 2010, 2 soldiers and 2 civilians were killed after North Korea fired dozens of artillery shells towards the island.
- **2024 firing** - The fired shells *did not enter South Korean territory* as they *all landed in the buffer zone* between the 2 countries.
- While there is *no damage to people or military* in South Korea, it *threatens peace* on the Korean peninsula and raises tensions.
- **Reaction of South Korea** - It ordered civilians to seek shelter on the island before holding ***live fire drills of its own***.
- **Response by North Korea** - It says that its firing drills off the west coast were *a natural response* to large-scale military actions by its neighbour.

*North Korea and South Korea are formally still at war, as the Korean War in 1953 ended with an armistice and not a formal peace treaty.*

## Reference

[BBC| Firing over Yeonpyeong Island](#)

Other Important News

### **Project 'Veer Gatha'**

- The 3<sup>rd</sup> edition of Project 'Veer Gatha', a joint initiative of **Ministry of Defence and Ministry of Education** will take part in Republic Day celebrations.
- Project Veer Gatha is a project that was established in 2021 under the **Gallantry Awards Portal (GAP)**.
- **Aim** - To disseminate the details of the bravery and sacrifice of the Gallantry Awardees (Soldiers of Armed Forces) among the students so as to raise the spirit of patriotism.

### **Pariksha Pe Charcha 2024**

- Pariksha Pe Charcha (PPC) is an **annual event** where Prime Minister Narendra Modi interacts with students, teachers, and parents.
- Students of **Classes 6 to 12** are eligible to participate in this event.
- The event is part of the larger movement, '**Exam Warriors**', which aims to create a stress-free environment for young people.
- PPC 2024 is the 7<sup>th</sup> edition of the event and will take place in Bharat Mandapam, New Delhi.

### **International Braille Day**

- World Braille Day is celebrated on **January 4<sup>th</sup>** to commemorate the birthday of **Louis Braille**, the inventor of braille.
- The day recognizes the importance of braille as a means of communication and the role it plays in the lives of blind and visually impaired people.
- Braille is a tactile representation of alphabetic and numerical symbols using 6 dots to represent each letter and number, and even musical, mathematical and scientific symbols.

### **SC Legal Services Committee**

- Supreme Court judge **Justice BR Gavai** has been nominated as the Chairman of the Supreme Court Legal Services Committee (SCLSC) recently.
- The SCLSC is a statutory body constituted under Section 3A of the **Legal Services Authorities Act, 1987**.
- It gives free legal services to the poor, marginalized, and unprivileged.

### **X-65**

- The X-65 is an experimental jet aircraft developed by the **Defense Advanced Research Projects Agency's (DARPA) Control of Revolutionary Aircraft with Novel Effectors (CRANE)** program.
- It is a full-scale aircraft to demonstrate a new method of flight control that uses no external moving parts.

### **Hot Jupiters**

- Hot Jupiters are a **class of exoplanets** that have features similar to Jupiter, but are much closer to their host star & its upper atmosphere is hotter than 1,800 degrees Celcius.
- The harsh ultraviolet radiation from its star is heating the planet's upper atmosphere, which in turn causes **magnesium and iron** gas to escape into space.
- The star's powerful gravitational tidal forces altered the planet's shape, making it more **oblong-shaped**.



### **Bobbili Veena**

- The Bobbili veena is a large plucked string instrument used in ***Carnatic classical music***, also known as the ***Saraswati veena*** and is named after the ***town of Bobbili***, where it was invented.
- In 2011, the Government of India gave the instrument a ***Geographical Indication tag***.
- The Bobbili veena is known for its distinctive notes and fine tune which is made from a single piece of jackfruit tree wood.
- The making of the veena began in the 17<sup>th</sup> century during the reign of ***Pedda Rayudu, the king of Bobbili Samsthanam*** in Andhra Pradesh.

### **National Birds Day**

- ***January 5*** is observed as National Birds Day introduced by U.S.A in 2002 and followed in some parts of the world.
- It is aimed at raising awareness for the conservation of avian species that have been adversely affected by habitat destruction, reducing food choices and climate change.
- The ***theme*** of the National Birds Day 2024 is ***'Right to Fight'***.
- ***Birds in News*** - Jungle Babbler, Oriental Magpie-Robin, Common Hoopoe, Indian Roller, Indian white-eye, Brown-headed barbet, House Sparrow.

### **Investment bankers**

- An investment banker is an individual who often works as part of a financial institution and is primarily concerned with raising capital for corporations, governments, or other entities.
- ***Examples of investment banker employers*** - Goldman Sachs ([GS](#)), Morgan Stanley ([MS](#)), JPMorgan Chase ([JPM](#)), Bank of America Merrill Lynch ([BAC](#)), and Deutsche Bank ([DB](#)).

### **National Anti-Doping Agency (NADA)**

- National Anti-Doping Agency (NADA) was set up as a registered society under the ***Societies Registration Act of 1860 on 2005*** with a mandate of creating ***dope-free sports*** in India.