

## UPSC Daily Current Affairs| Prelim Bits 06-01-2025

### Human Metapneumovirus (HMPV) Infection

#### Why in News?

An outbreak of Human Metapneumovirus (HMPV) in China has raised alarm globally.

- **HMPV** - It is a common respiratory virus that causes lower and upper respiratory infections (like a cold).
- It falls in the Pneumoviridae family along with RSV.

***Pneumoviridae family** includes Respiratory Syncytial Virus (RSV), measles and mumps.*

- **Seasonal disease** - It usually occurs in the winter and early spring, similar to Respiratory Syncytial Virus (RSV) and the flu.
- **Risk factors** - **All age groups**, especially among young children under the age of 14, older adults, & people with weakened immune systems.
  - Lung conditions such as Asthma or Chronic Obstructive Pulmonary Disease (COPD) should be extra cautious.
- **Transmission** - Through bodily secretions from coughs, sneezes
- Close contact with an infected person such as shaking hands, hugging.
- Touching a doorknob or a phone or a keyboard that may be contaminated with the virus & then touching the mouth, nose or eyes.
- **Incubation period** - 3 to 6 days.
- **Symptoms** - Cough, runny or blocked nose, sore, throat, fever and wheezing which progress to bronchitis or pneumonia.

## Symptoms of Human Metapneumovirus



**Runny or stuffy nose.**



**Cough.**



**Shortness of breath.**



**Sore throat.**



**Wheezing.**



**Fever.**



**Rash.**

- **Treatment** - There is *currently no vaccine*, and antiviral treatment is not recommended.
- **Precautions** - *Wash hands often* with soap and water for at least 20 seconds.

*India hadn't registered any unusual spike in winter respiratory diseases.*

### Reference

[The Hindu| Rise of Human Metapneumovirus \(HMPV\) in China](#)

### Green Bank

#### Why in News?

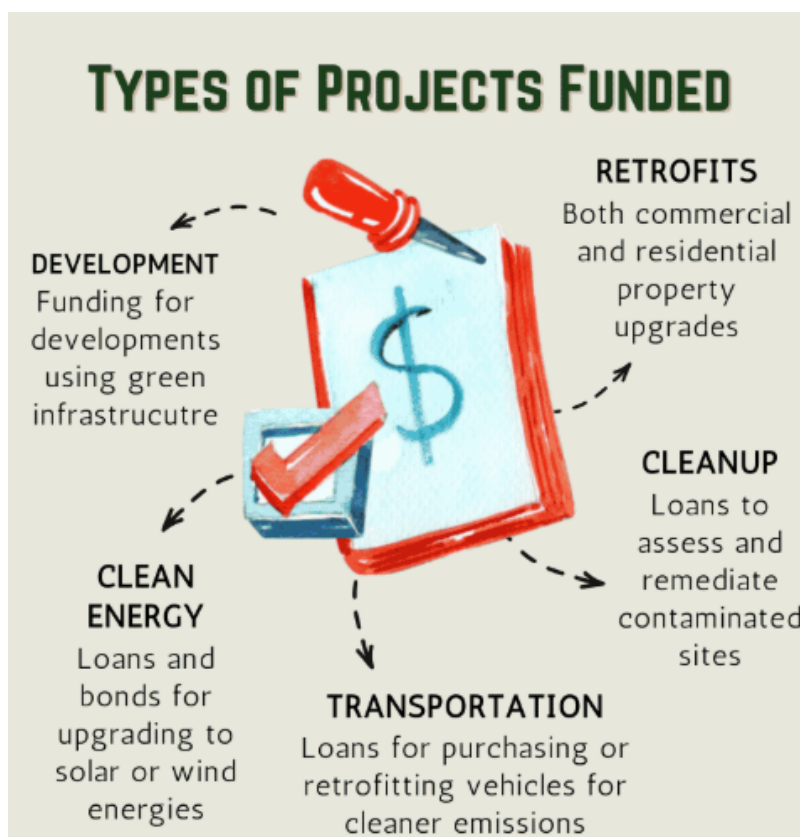
*Recent study by the Council on Energy, Environment and Water (CEEW) and Natural Resources Defense Council India (NRDC) highlighted the need for a green bank in India.*

- **Green banking** - It is a new financing trend where banks shift their investment strategies to *focus on sustainable technologies and environmentally-friendly initiatives.*
- **Primary objectives**
  - To protect the environment for future generations
  - To minimize paperwork and concentrate on electronic transactions
- It became widely popular among banks following the Paris Climate Agreement in 2015 at Cop21 of UNFCCC.

*The 29th Conference of Parties to the United Nations Framework Convention on*

*Climate Change (COP29) ended with the assurance of \$300 billion annually as climate finance. The demand of \$1.3 trillion by the Global South for establishment of a 'Green Bank'.*

- **Green banks** - It is a ***mission-driven institutions*** that use innovative financing to accelerate the transition to clean energy.
- Banks can also become green at a more local level by instituting ***eco-friendly lending policies***.
  - **For example**, it could be like loans for electric vehicles and home solar electric systems or company-wide policies banning investments in harmful industries such as fossil fuels.



- Green banking is essentially the promotion of environmentally friendly practices and the reduction of the banking sector's carbon footprint.
- **In India** - The World Bank has recently announced a \$1.5 billion funding for India in its efforts to develop energy from low carbon sources.

*The State Bank of India has adopted green banking as a policy and is the **1<sup>st</sup> green bank in India**, by going green and encouraging green energy projects.*

## References

1. [Down To Earth| Need for a Green Bank in India](#)
2. [Aspiration| Green Banking](#)

## Quadrantid Meteor Shower

### Why in News?

The world is all set to witness the 1<sup>st</sup> Quadrantid meteor shower of the year 2025.

#### Meteor shower

- It is a celestial event in which a *number of meteors* are observed to radiate, or originate, from one point in the night sky called Radiant.
- **Caused by** - *Streams of cosmic debris called meteoroids* entering Earth's atmosphere at extremely high speeds on parallel trajectories.

- **Name Quadrantids** - It comes from the obsolete *constellation Quadrans Muralis*, which was named in 1975 by French astronomer JJ Lalande.
- **Origin** - It possibly emerged from *asteroid 2003 EH1*.

*Quadrans Muralis* is located between the constellations of Bootes and Draco (near the end of the handle of the "Big Dipper").

*Asteroid 2003 EH1* is believed to be a fragment of an extinct comet that broke down in 1490-91, which takes 5.52 years to orbit the Sun once.

- **Observation** - It was *1<sup>st</sup> seen in 1825* by Belgian astronomer Adolphe Quetelet.
- **Fireball meteors** - These meteors usually lack persistent trains but often *produce bright fireballs*.
- They are known for their larger explosions of light and color with *magnitudes brighter than -3*.
- It persists longer than an average meteor streak due to the fireballs which originate from larger particles of material.
- **Speed** - They enter the Earth's atmosphere at high speed, typically *around 40km per second*.
- **Visibility** - In its peak activity, observers can spot *60 to 120 meteors per hour* and the visibility depends mainly on location and timing.

**Quadrantid Meteor Shower in 2025** favour the western regions of North America during pre-dawn hours. They are likely to shine bright as Earth's forward-facing side hits them at high speed.

<b>Asteroid</b>	A relatively small, inactive, rocky body <i>orbiting the Sun</i> .
<b>Comet</b>	A relatively small, at times active, object whose ices can vaporize in sunlight forming an atmosphere (coma) of dust and gas and, sometimes, a <i>tail of dust and/or gas</i> .
<b>Meteoroid</b>	A small particle <i>from a comet or asteroid</i> orbiting the Sun.
<b>Meteor</b>	The light phenomena which results when a meteoroid enters the Earth's atmosphere and vaporizes; <i>a shooting star</i> .
<b>Meteorite</b>	A meteoroid that survives its passage through the Earth's atmosphere and <i>lands upon the Earth's surface</i> .

## References

1. [The Indian Express](#)| 1<sup>st</sup> Quadrantid Meteor Shower of 2025
2. [NASA](#)| Quadrantids Meteor Shower

**Related News** - [Geminids Meteor Shower](#) | [Ursid Meteor Shower](#) | [Space Rocks](#)

## Island Development Agency (IDA) and its Initiatives

### Why in News?

Recently, the Union Home Minister chaired the 7th meeting of the Island Development Agency (IDA) in New Delhi.

- **IDA** - It is the nodal agency created for ***holistic development of Islands***.
- **Established in** - *2017*, by Ministry of Home Affairs.
- **Vision** - To *develop India's maritime economy* while preserving the natural eco-system of remote islands.
- **Activities** - *Concept Development Plans and Detailed Master Plans* are prepared for identified islands with principles of
  - Sustainability, People's participation, Eco-System preservation and Determination of carrying capacity.

### 7th Meeting of IDA

- It *reviewed the progress* of ongoing development initiatives in the Andaman and Nicobar Islands and Lakshadweep.
- It underscored the importance of *advancing solar and wind energy initiatives* in the Andaman and Nicobar Islands and Lakshadweep.
- It emphasized the need for a holistic approach to infrastructure projects in both island groups.
- It called on all concerned central ministries to collaborate on initiatives related to tourism, trade, and other key sectors.
- **Solar energy initiatives** - Under the 'PM Surya Ghar' scheme, 100% solar energy panels should be *installed in all the houses in Andaman-Nicobar Islands and*

### Lakshadweep.

- It aims to achieve 100% renewable energy through solar panels and wind mills in both islands.

## References

1. [PIB| 7<sup>th</sup> Meeting of Island Development Agency \(IDA\)](#)
2. [PIB| Island Development Agency \(IDA\)](#)

## One Liners 06-01-2025

### Geography

#### Lempa River (Rio Lempa)

- **Location** - Lempa River, a river in Central America.
- It is a *transboundary river* shared by countries such as El Salvador, Guatemala and Honduras.
- It is *El Salvador's largest* and only navigable one.

#### Cold Wave Definition

- The United Nations Office for Disaster Risk Reduction defines cold wave as a phenomenon where surface temperatures in an area fall below a certain threshold for at least 2 consecutive days.
- According to the IMD, a cold wave is declared when minimum temperatures are **10°C or lower in the plains**, or **0°C or lower in the hills**, sustained over three consecutive days.

### Social Issues

#### Nari Shakti Se Jal Shakti

- Nari Shakti Se Jal Shakti, meaning women power for water empowerment.
- It is a ground-breaking effort that is leveraging women's leadership in water conservation.
- Through Nari Shakti Se Jal Shakti, women mobilised entire communities to adopt water-saving practices, reduce wastage and protect natural water bodies.

### Polity & Governance

#### Kerala Forest (Amendment) Bill, 2024

*The Kerala government has brought in a Bill to amend the Kerala Forest Act, 1961.*

- It is to prevent using the forest as a place for dumping waste materials.
- Dumping waste materials in rivers within the forest area or in water bodies flowing into forest areas are to be made offences under the proposed amendments.
- Besides, the Bill envisages giving more powers to forest officers, and also hikes manifold the fines imposed for various offences.

### Economy

#### Steel industry in India

- The steel industry contributes around *2% to India's GDP* (gross domestic product).
- The National Steel Policy, 2017, aims to increase India's steel production capacity from 122 million tonnes (MT) in 2015 to 300 MT by 2030.

### Agriculture

#### Di-Ammonium Phosphate (DAP)

- DAP, the **2<sup>nd</sup>-most consumed fertiliser** in India after urea, is primarily used in crops such as wheat, mustard and pulses.
- It is an important nutrient for plant growth.
- It is supported by government subsidies under the *Nutrient-Based Subsidy (NBS) scheme*, based on their nitrogen, phosphorus, potassium and sulphur content.

## Environment

### Ipea malabarica

- It is also known as the Malabar daffodil orchid.
- It is a species of ground orchids *endemic to the high altitude hills of the southern Western Ghats* in India.

### Bhairavapalem wetland

- It is a mudflat in the *Godavari River* in East Godavari, **Andhra Pradesh**, India.
- The wetland is a habitat for many bird species, including the endangered great knot and the *vulnerable Indian skimmer*.

### Paradendryphiella salina

- It is a *marine fungus* that is commonly found growing on seaweed in the intertidal zone, with its closest non-marine relatives living on land plants.

### Intergovernmental Negotiating Committee (INC5)

- **Aim** - To finalise the draft of a legally binding treaty on plastic pollution, addressing the issue comprehensively for the 1<sup>st</sup> time.
- **Mandate** - Encompassing the full lifecycle of plastics including product design and environmentally sound waste management.
- **Location** - It was at Busan, South Korea.

## Science

### IceCube Neutrino Observatory

- It can detect high-energy neutrinos from deep space but is under the frozen ice in the Antarctic rather than being in the water.
- IceCube, which has been operational since 2011 and was the 1<sup>st</sup> telescope to detect high-energy neutrinos, has been able to only spot a handful of these messengers.