UPSC Daily Current Affairs| Prelim Bits 28-01-2025

World Leprosy Day

Why in News?

The World Health Organization (WHO) has requested governments to prioritize leprosy elimination and ensure sustained funding for surveillance, treatment, care and support.

World Leprosy Day

- It is observed annually on the ***last Sunday*** of January since 1954.
- It was established by Raoul Follereau in honor of ***Mahatma Gandhi's*** compassion for leprosy patients.
- **Aim -** To raise public awareness about leprosy.
- **World Leprosy Day, 2025 – Theme** - 'Unite, Act, and Eliminate Leprosy'.

Leprosy

- It is a neglected tropical disease that primarily affects the nervous system.
- It is also known as Hansen's disease.
- It is an infectious disease caused by ***Mycobacterium lapre*** that causes severe, disfiguring skin sores and nerve damage in the arms, legs, and skin areas around the body.
- It's more common in people living in poverty.
- **Symptoms -** Most prominent in cooler parts of the body such as the hands, feet, and face.
- In some cases, body parts may lose their sense of touch and pain, increasing the likelihood of injuries such as cuts and burn.
- **Transmission** - Leprosy is not so contagious, repeated contact with nose and mouth droplets from someone with untreated leprosy can spread.
- **Treatment** - Leprosy is curable with antibiotics, Treatment usually lasts one to two years, and early treatment can prevent disability.
- **Global scenario** - In 2023, 1,82,815 new cases were reported from more than 100 countries, with 95% of those concentrated in 23 global-priority countries.
- Alarmingly, more than 5% of the new cases were reported with Grade 2 Disability (visible deformity), highlighting delays in detection.
- 5.6% of the new cases were among children, with some countries reporting child rates exceeding 30%, indicating ongoing transmission.
- **Jordan** became the 1st country to be verified and acknowledged by the WHO for elimination of leprosy, demonstrating what is possible with focused and concerted efforts
- Additionally, in 2023, 56 countries reported zero new case of leprosy.

- **Scenario in India -** India accounts for 53% of the global leprosy cases.
- As of recent statistics, India has successfully achieved the goal of eliminating leprosy as a public health problem, defined as having less than 1 case per 10,000 people.
- **Global Leprosy Strategy -** The Global Leprosy Strategy 2021-2030 has a vision of zero disease, zero disability and zero stigma and discrimination.

Reference

The Hindu | Leprosy Elimination

White-naped Tit

Why in News?

A group of bird enthusiasts traced the rare white-naped tit for the first time at Kadakola village in the Kappatagudda hills, North Karnataka.

- It is a ***passerine bird*** (any bird of the order Passeriformes) in the tit family Paridae.
- **Scientific Name -** Machlolophus nuchalis.
- **Size** - White-naped tit is a 12-13 cm medium-sized ***shy*** bird.
- It is the only pied (black-and-white) tit in India.
- **Appearance –** It has the wing-coverts, crown, sides of head, chin, throat, a ventral band running down the breast and belly to the vent black.
- The cheeks below the eye, the ear-coverts and a patch on the nape are white.
- The wing has white on the outer primaries and the base of the secondaries. The last tertiaries are completely white.



- **Nesting** - It prefers nesting and roosting only in cavities made by coppersmith barbets and woodpeckers on old trees of Indian frankincense Toothbrush Tree, Gum Arabica, and Indian Jujube.
- **Distribution -** It is very patchily distributed and endemic to India.
    - In India, it is found in only some parts of Rajasthan, Gujarat, the Eastern Ghats of Southern Andhra Pradesh, Northern Tamil Nadu, Haryana, and Southern Karnataka.
    - In South Karnataka, it's documented only in the ***Cauvery Wildlife Sanctuary.***
- **Habitat** – Found in dry thorny scrub forests in two disjunct populations, in western India and southern India.

- This species is and has been vulnerable to extinction, especially because of the
- **Diet** - It mainly feeds on insects and nectar from flowers of caper berries (Chippuri/Kariuppi).
- **Vocal -** Quite vocal, commonly gives a 2- to 5-noted high-pitched “psi-psi-psi” ending in a harsh churrr.
- **Conservation status**
    - **IUCN** – Vulnerable.
- **Threats -** scarcity of suitable habitats, particularly nest cavities made by woodpeckers.

References

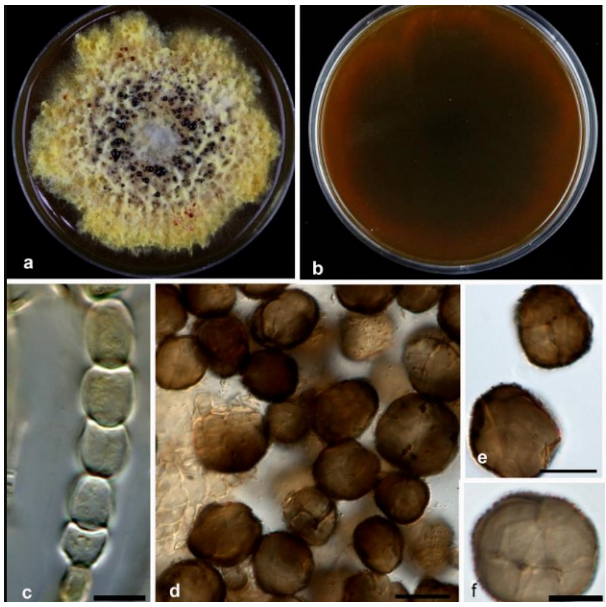
1. Times of India | White-naped tit
2. iNaturalist | White-naped Tit

Epicoccum Indicum

Why in News?

A new species of phytopathogenic fungi, epicoccum indicum was recently discovered by researchers at Banaras Hindu University.

- It is a ***new species of phytopathogenic fungi*** associated with an emerging leaf spot disease in Chrysopogon zizanioides (vetiver).
- The species was identified based on morpho-cultural characteristics and multigene molecular phylogenetic analyses.
- It forms a distinct clade, separate from other related species, which justifies its classification as a new species.
- The species name refers to India, where it was discovered.



Phytopathogenic fungi

- It can cause diseases in plants, leading to significant economic losses in agriculture and horticulture

- It is contributed to ***70-80%*** of plant diseases and infect parts of the plants such as roots, stems, leaves, fruits and flowers.
- Most of these fungi belongs to Ascomycetes and the Basidiomycetes.
- They possess a wide range of enzymes destroying the carbohydrate polymers (constitute the building materials of the cell walls).
- Some fungi ***kill their hosts*** and feed on dead material (necrotrophs), while others colonize the living tissue (biotrophs).

Leaf spot disease

- It is a plant disease that causes circular or elongated spots on leaves, stems, and sheaths.
- These spots can be brown, black, tan, or reddish in color, and can vary in size.
- Leaf spot disease can be caused by fungi, bacteria, nematodes, or other organisms.

Reference

Times of India | Epicoccum Indicum

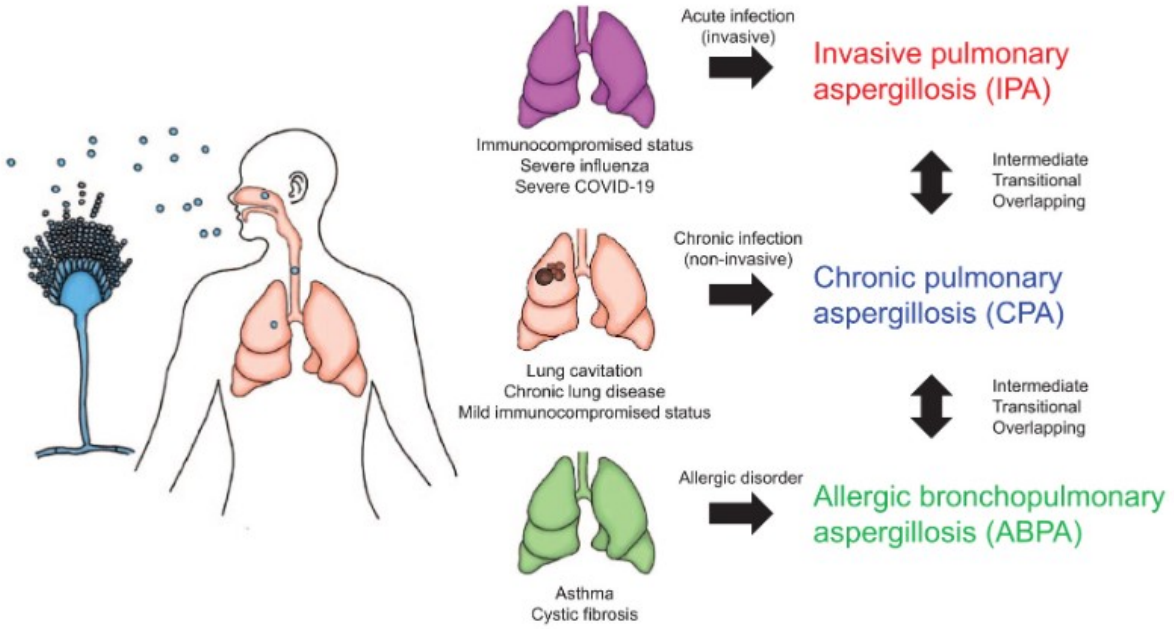
Chronic Pulmonary Aspergillosis (CPA)

Why in News?

Recently, a new research has identified a Chronic Pulmonary Aspergillosis (CPA) in tuberculosis survivors among Assam's tea plantation workers.

- **CPA** – It is a serious and ***long-term fungal infection*** that affects the lungs.
- **Caused by** – *Aspergillus fumigatus, a fungus* that strikes individuals with immunodeficiency.
- **Conditions** – It is a chronic lung disease that occurs commonly in ***pre-existing lung cavities***.
- Poverty, poor nutrition, kitchen smoke, close contact with smear-positive patients and living in congested environments.
- **Risk factors** – It mostly occurs in,
    - Post-Tuberculosis (TB) or active TB patients.
    - People with weakened immune system or
    - Lung diseases.
- **Transmission** – It is not a contagious disease.
- It can't be passed from person to person.

> *According to the National Tuberculosis (TB) Prevalence Survey 2019-2021, TB has been a major public health issue across the tea belts in Assam's Brahmaputra and Barak valleys, afflicting 217 per 1,00,000 population.*



- **Incubation period** – *3 months* or more.
- **Symptoms** – Chronic cough, haemoptysis (coughing blood), weight loss or fatigue and other respiratory.
- **Impact** – It causes severe bleeding in the lungs, which lead to be fatal.
- **Treatment** – It vary depending on the severity of symptoms and any underlying conditions.

Using advanced serological testing and radiological imaging, the researchers recorded a CPA prevalence of 17.18% in the year-long study and seropositivity was 18.5% in active TB patients but spiked to 48.9% in those who had completed treatment.

References

1. The Hindu| Assam's tea workers prone to Chronic Pulmonary Aspergillosis (CPA)
2. Healthline| Chronic Pulmonary Aspergillosis (CPA)

One Liners 28-01-2025
History, Art and Culture
Jayati Jai Mamah Bharatam (JJMB) • **JJMB** – It is a spectacular ensemble featured over *5,000+ artists performed more than 50 folk and tribal dance forms*. • It showcasing India's rich heritage on a global stage. • **Themes** – Viksit Bharat, Virasat bhi Vikas bhi and Ek Bharat Shreshtha Bharat. • **Performance** – Sangeet Natak Akademi. • **Nodal Ministry** – Ministry of Culture. • **Recognized by** – *Guinness World Records* for 'The Largest Indian Folk Variety Dance'.
Geography

Lake Victoria

• **Located in** – Africa, *largest lake in the African* Great Lakes.
• **Bordering** – Uganda, Kenya, and Tanzania.
• **Chief reservoir of** – *Nile.*
• **Facts** – *World's largest tropical lake*.
- *2nd largest* fresh water body in the world.
• **Threats** – Deforestation, land use change, loss of wetland quality and waste from urban areas, industries and farm lands.
• **Impact** – Pollution, Loss in water quality and Algal blooms.



Polity & Governance

Draft Legal Metrology (Indian Standard Time) Rules, 2025

• **Aim** – One Nation, One Time.
• **Published by** – Legal Metrology Division.
• **Association with** – National Physical Laboratory (NPL) and India Space Research Organization (ISRO).
• **Nodal Ministry** – Ministry of Consumer Affairs, Food & Public Distribution
• **Rule** – It is a comprehensive rule *standardizing and mandating* the use of *Indian Standard Time (IST)* across India.
• **Feature** – It provides a unified and precise timekeeping framework for strategic, non-strategic, industrial and societal applications.

Water Use Efficiency-Strategies for a Sustainable Future

• **Organized by** – Bureau of Water Use Efficiency (BWUE) and Indian Plumbing Association (IPA).
• **Nodal Ministry** – Ministry of Jal Shakti.
• **Concept** – It is a *one-day workshop* with a focus on the domestic water sector.
• **Role** – Low-flow fixtures and smart sanitary ware solutions in reducing water consumption.

Uniform Civil Code (UCC)

Uttarakhand becomes the 1st state to implement UCC from January 27.
• **UCC** – It is a call for the formulation of *One Law for India*.
• **Under** – *Article 44*.
• **Article 44** – It states that the State shall endeavour to secure a Uniform Civil Code for the citizens throughout the territory of India.
• **Aim** – To provide protection to vulnerable sections as envisaged by Ambedkar including women and religious minorities.
• **Feature** – Applicable to *all religious communities* in matters such as marriage, divorce, inheritance and adoption.

Economy

Certificate of Origin (eCoO) 2.0

• **Launched by** – Directorate General of Foreign Trade (DGFT).
• **Nodal Ministry** – Ministry of Commerce & Industry.
• **eCoO 2.0** - It is a platform designed to *simplify the certification process for exporters.*
• The electronic filing of *Non-Preferential Certificates of Origin become mandatory* through this platform.
• **Feature** – It allowing exporters to request corrections to previously issued certificates through an easy online application process.

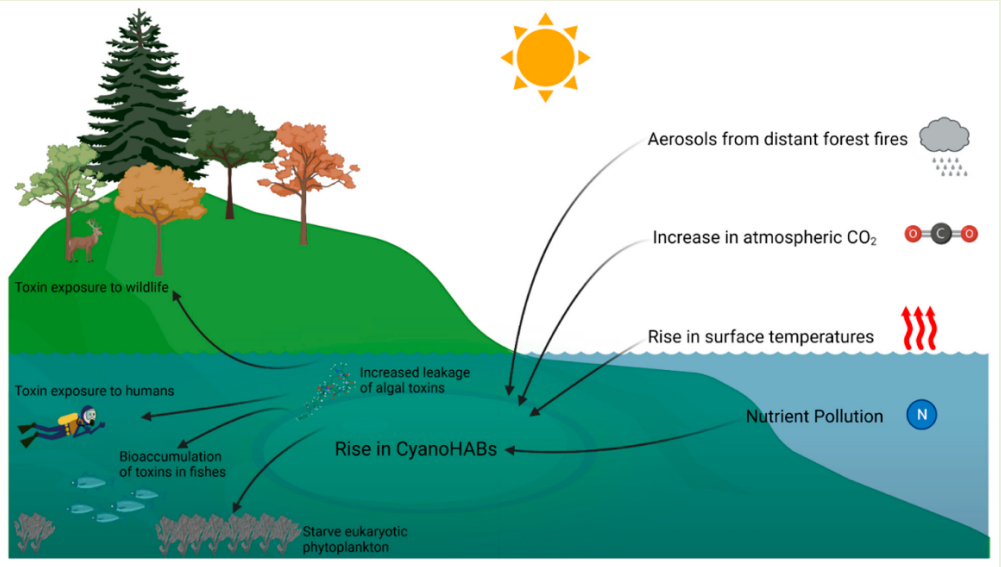
Environment

Cyanobacteria

• **Cyanobacteria** – It is a *photosynthetic microscopic bacteria* that live in all types of waterbodies.
• It is a *single-celled organisms* and produces toxins called *Cyanotoxins*.
• It is known as Cyanophyta, Cyanoprokaryota, Chloroxybacteria, and *Blue-Green Algae*.

Cyanobacterial Harmful Algal Blooms (CyanoHABs)

• **CyanoHABs** – *Increase in population* of cyanobacteria results in Harmful Algal Blooms (HABs).
• **Causes** – It turns the waterbody into *bright green or blue-green*.
• It forms a discoloration and mat on the bottom sediments of the water column.
• It causes *Dissolved Oxygen (DO)* swings.
• **Impact** – Plant and animal die-off
  - Taste and odor issues
  - Polluted water
  - Toxic to animals and people.



Science

Parkinson Disease (PD)

• **PD** – It is a *brain condition* that causes problems with movement, mental health, sleep, pain and other health issues.
• **Symptoms** – Tremors, painful muscle contractions and difficulty speaking.
• **Risk factors** – Usually occurs in *older people*, and younger people also affected.
  - *Men are affected more* than women.
• **Treatment** – There is *no cure,* therapies and medicines can reduce symptoms.

Miscellaneous

Malaria-Free Certification

• **Elimination Process** – It requires a country to demonstrate the transmission of indigenous malaria has been interrupted nationwide for at least *3 consecutive years*.
• **Officially recognized by** – World Health Organization (WHO) of a country's malaria-free status.
• **Advisory body** – Technical Advisory Group on Malaria Elimination and Certification (TAG-MEC).
• **Georgia** – It has officially been *certified as malaria-free*.
• **Turkey** – It remains the only country in the WHO European Region *not yet certified* malaria-free.

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