

UPSC Daily Current Affairs| Prelim Bits 15-03-2025

Geet Gawai

Why in News?

The welcoming ceremony for the Indian PM's recent visit to Mauritius included Geet Gawai, showcasing the vibrant heritage of the Indian diaspora in Mauritius.

- **Geet Gawai** - It is a ***unique singing style*** of Bhojpuri-speaking communities of Indian descent in Mauritius.
- It is mostly performed by **women**.
- **Historical Relevance** - The origins of Geet Gawai in Mauritius can be traced to the arrival of Indian indentured laborers in early 1700s.
- Lakhs of Indians, largely from Bhojpuri-speaking regions, were brought to Mauritius. Their cultural practices, including Geet Gawai, have been preserved through generations.
- **Pre-wedding ceremony** - Traditionally, it is a pre-wedding ceremony that combines rituals, prayer, songs, music and dance.
- It takes place at the home of the bride or groom and involve female family members sorting items like turmeric, rice, grass and money in a piece of cloth.
- Meanwhile, other members continue to sing songs honouring Hindu gods and goddesses.
- After the site is sanctified, the mother of the bride or the groom honours musical instruments to be played at the ceremony.
- Uplifting songs are then performed with everyone joining in to sing and dance.
- **UNESCO Recognition** - It has been recognized as an UNESCO's Representative List of Intangible Cultural Heritage of Humanity in December 2016.

Quick Facts

- **Mauritius** - Also Referred as "Mini India" due to its substantial population of Indian origin.
- The influence of Indian traditions is apparent in daily life, with many Mauritians wearing traditional Indian attire and participating in cultural festivities.
- **Bhojpuri** - Holds a significant position as one of Mauritius's dominant languages, as the 2011 Census shows approximately 5.3% of the population speaks Bhojpuri.
- **Language utilized** - In political campaigns and cultural expressions, and its promotion has been institutionalized through educational policies.
- **Government Promotion of Bhojpuri** - The Bhojpuri-Speaking Union Act supports the language's use and cultural activities. The Bhojpuri Mahotsav was also launched to celebrate Bhojpuri culture.
- **Continued Importance** - The act of performing & speaking Bhojpuri, and the acceptance of Indian cultural norms in Mauritius proves the strength of the ties between India and Mauritius.
- **Cultural Identity** - Geet Gawai, therefore, stands as a testament to the successful transmission of culture. It is an act of cultural identity and cultural preservation.

References

1. [The Times of India | Geet Gawai](#)
2. [Maruitius Times | Geet Gawai](#)

Viral Meningitis

Why in the News?

Five Students from Kerala are being treated after showing symptoms of Viral Meningitis.

Meninges are protective membranes that cover the brain and spinal cord.

- **Meningitis** - *Inflammation of Meninges*, caused by bacterial, viral, or fungal infections.
- **Viral Meningitis** - Viral meningitis is generally less severe than bacterial meningitis and commonly resolves without complications.
- **Causes** - Many viruses can cause meningitis. The most common are enteroviruses, responsible for over 85% of cases. Other causes include
 - Herpes simplex virus (HSV-1 and HSV-2)
 - Varicella-zoster virus (VZV, chickenpox virus)
 - Mumps virus
 - Cytomegalovirus (CMV)
- Examples of viral causes include Japanese encephalitis, Nipah virus infection, and rabies.
- **Symptoms** - Viral meningitis include fever, headache, nausea or vomiting, discomfort while looking at light (photophobia)
- In young children, symptoms may be less specific and include irritability, poor feeding, or lethargy.

- **Diagnosis** - Early suspicion and testing are crucial for diagnosis.
- **CSF analysis** - A lumbar puncture (spinal tap) is performed to collect cerebrospinal fluid (CSF), which surrounds the brain and spinal cord.
- It helps ***distinguish between viral, bacterial, or other causes*** of meningitis.
- If viral meningitis is suspected, specific viruses can be identified using **RT-PCR** (reverse transcription polymerase chain reaction), which detects viral genetic material.
- **Prevention** - Hygiene and sanitation plays a key role in reducing its spread.
- **Treatment** - The treatment of viral meningitis is supportive. Close observation, pain relief, fluid management and attention to nutrition are essential.
- Most cases of viral meningitis resolve on their own within a week or two.
- Nearly all cases of viral meningitis recover fully without long-term effects.

Quick Facts

- **Bacterial meningitis** - It is a medical emergency requiring immediate diagnosis and antibiotic treatment.
- If treated early, bacterial meningitis has good outcomes.
- However, delays in diagnosis can lead to severe complications such as hearing loss, cognitive impairment, neurological issues, or even death.
- **Encephalitis** - It occurs when the *brain tissue itself becomes inflamed* due to an infection.
- Patients with encephalitis may experience seizures, confusion, disorientation, and even loss of consciousness.
- **Vaccines** - Effective vaccines are available against the 2 most common bacteria that cause meningitis, the pneumococcus and meningococcus.
- Vaccination against mumps and chickenpox prevents infection by these two viruses, which are known to occasionally cause meningitis.

References

1. [The Hindu | Viral Meningitis](#)
2. [WHO | Viral Meningitis](#)

Scrub Typhus Infections

Why in News?

A study by Christian Medical College (CMC) Vellore & London School of Hygiene & Tropical Medicine (LSHTM) highlights the high risk of scrub typhus infections in rural Tamil Nadu.

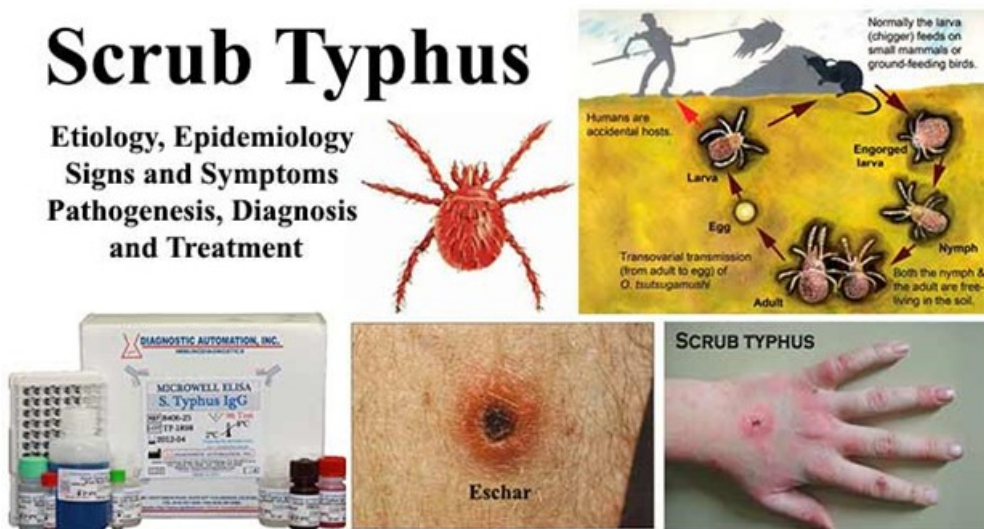
Key Findings of the Study

- **Study Area** - Rural areas of Tamil Nadu.
- **Sample Size** - 32,000 individuals.
- **Incidence Rate** - Nearly 10% of the population was infected annually over a 2-year study period.
- **Severity of Cases** - 8%-15% of infected individuals developed fever requiring hospitalization.

- Scrub typhus accounted for 30% of fever-related hospitalizations, making it the second most common cause after COVID-19.
- Five deaths recorded due to severe complications.

Scrub Typhus

- It is a severe infection caused by ***Orientia tsutsugamushi*** (a rickettsial bacterium).
- **Vector** - Infected larval mites (chigger).
- **Mode of Transmission** - Humans get infected through the *bite of infected chiggers* (mite larvae).
- The bacteria *enter the bloodstream*, causing systemic infection.



- **Symptoms** - Fever (develops about 10 days after infection), Headache and body aches, Rash, Eschar (black sore at the site of the chigger bite) - a crucial diagnostic sign.
- **Complications** - **Acute Respiratory Distress Syndrome (ARDS)** - severe lung infection.
- **Meningitis** - Inflammation of brain membranes.
- **Multi-organ failure** - Kidney, liver, and heart damage.
- **Septic Shock** - Life-threatening blood infection.
- **Death** - In severe cases if not treated properly.
- **Treatment - Antibiotics** - Doxycycline and Azithromycin are effective.
- Early treatment reduces complications and mortality.
- **Prevention - No vaccine** currently available.
- Avoid exposure to mite-infested areas (dense vegetation, bushes).
- Wear protective clothing and use insect repellents.

References

1. [DD News | Scrub Typhus Infections](#)
2. [CDC | Scrub Typhus](#)

Oilfield (Regulatory and Development) Amendment Bill, 2024

Why in News?

Oilfield (Regulatory and Development) Amendment Bill, 2024, earlier passed by the Rajya Sabha, now passed by the Lok Sabha.

- **Aim** - To strengthen domestic oil and gas production, reducing dependence on imports.
- The Bill seeks to **attract private investment** into petroleum production while ensuring that the rights of existing leaseholders are not compromised.
- The Bill amends the **Oilfields (Regulation and Development) Act, 1948**.
- **Definition of Mineral oils** -The 1948 act defines mineral oils to include petroleum and natural gas.
- The bill expands the definition to include
 - Any naturally occurring hydrocarbon,
 - Coal bed methane, and
 - Shale gas/oil.
- It clarifies that mineral oils **will not include** coal, lignite or helium.
- **Petroleum Leases** - The Bill replaces the term 'mining leases' with 'petroleum leases', which will now govern exploration, production, and disposal activities.
 - To streamline environmental and land clearances, which have often caused delays in oil and gas projects.
- The Bill clarifies that existing mining leases issued under the 1948 Act will remain valid and unchanged.
- **Powers of central government** - The Bill grants the Central government greater rule-making powers to regulate various aspects of petroleum leases, which included
 - The merging of petroleum leases for operational efficiency,
 - The sharing of infrastructure facilities among leaseholders, and
 - The obligations of lessees to protect the environment and reduce emissions.
- **Alternative Dispute Resolution** - It also introduces alternative dispute resolution mechanisms, allowing conflicts to be settled either within **India or internationally**.
- **Penalties** - New Bill replaces imprisonment with financial penalties, increasing the **maximum fine to Rs 25 lakh**, which the previous act consists of up to 6months or a fine of Rs1,000, or both.
- The Bill adds following offences
 - Undertaking activities related to mineral oils such as exploring, prospecting, and production without a valid lease, and
 - Non-payment of royalty.
- If violations continue, an **extra fine of up to Rs 10 lakh per day** may be imposed.
- **Adjudicating Authority for Penalties** - A new system with an **officer of Joint Secretary rank or higher** being appointed to adjudicate financial violations has been introduced.
- Appeals against their decisions will be directed to the **Appellate Tribunal** under the Petroleum and Natural Gas Regulatory Board (PNGRB) Act, 2006.
- If further appeals are needed, cases will be heard by the Appellate Tribunal for Electricity, which operates under the Electricity Act, 2003.

India currently consumes 5.5 million barrels of crude oil in a day. Meanwhile, the country's dependency on imports for crude oil needs is over 85% and stands at around 50% for natural gas.

References

1. [DD News | Oilfield \(Regulatory and Development\) Amendment Bill, 2024](#)
2. [PRS INDIA | Oilfields \(Regulation and Development\) Amendment Bill, 2024](#)

Nothobranchius Sylvaticus

Why in News?

A team of international scientists have recently discovered and described a new type of 'killifish', *Nothobranchius sylvaticus* that is endemic to a Kenyan forest.

- **Scientific name** - *Nothobranchius sylvaticus*, from the Latin meaning "pertaining to the forest".
- It is also the **1st known endemic killifish** to persist in a forest.
- **Genus** - *Nothobranchius*
 - Known as "annual killifish" because they live in temporary pools that dry up seasonally, with their eggs surviving in the dry mud until the next rainy season.
- **Distinction** - *N. sylvaticus* lineage diverged from its sister species about 7.09 million years ago.
 - Phylogenetic analysis of mitochondrial sequences, along with nuclear genes, identifies the new species as a distinct evolutionary lineage.
- **Morphology** - Light blue scales on its trunk extend to cover its body, and the head is grey with distinct red lobes and brown-red oblique bars.
- Dorsal and anal fins are golden, marked with dark grey dots and stripes, which merge into a uniform dark grey zone; the caudal fin is dark red to red, slender black distal band.



- **Sexual dimorphism**
 - **Males** - They are generally larger than females.
- **Threats** - Increasing impacts on land and water resources will continue to cause habitat degradation.

- **Conservation Status** - It is ***critically endangered*** and may become extinct soon.

Killifish

- Killifish are oviparous or egg-laying fish.
- There are around 1,270 species of killifish.
- **Size** - Most killifish species are relatively small, typically reaching a length of 1-2 inches (2.5-5 cm), although some can grow larger.
- **Appearance** - Generally, male killifish will be far more colorful and have much more developed finnage than females.
- **Habitat** - Killifish live in small pools of water in the wild, which may occasionally dry up.
- This means that some species are not particularly long-lived and are unlikely to live for over 2 years.
- **Distribution** - They are mainly found in the fresh or brackish waters of the Americas, southern Europe, much of Africa, the Middle East and Asia.
- **Diet** - In the wild, killifish eat small crustaceans, insects, and seeds, while in aquariums, they can be fed live or frozen foods like brine shrimp, daphnia, and mosquito larvae.

References

1. [Down to Earth | Nothobranchius sylvaticus](#)
2. [Phys Org | Nothobranchius sylvaticus](#)
3. [Zootaxa | Nothobranchius sylvaticus](#)

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History, Art and Culture

The Kuki Tribe

- **Ethnic Origins & Distribution** - Kukis are a diverse ethnic group residing in Northeast India, Myanmar, and Bangladesh, encompassing multiple tribes with shared ancestry.
- **Colonial Nomenclature** - The term "Kuki" was imposed during colonial rule, dividing them into "old" and "new" Kukis, it's not a self-designation.
- **Cultural and Social Structures** - Kuki society features rich cultural institutions like Sawm (boys' community center) and Lawm (youth club), fostering social cohesion and practical skills.
- **Historical Conflicts & Resistance** - Their traditional Jhum cultivation led to land disputes with Nagas and Meiteis. The Kuki Rebellion (1917-19) marked their resistance against British rule, highlighting their historical independence under chieftains

Polity & Governance

A few findings from the recently released - Standing Committee Report on Consumer Affairs, Food & Public Distribution (2024- 25)

- **Commission Vacancies** - State & District Consumer Commissions face severe staffing shortages, with 50% of State President posts vacant, crippling effectiveness.
- **Fund Utilization** - The Consumer Welfare Fund (CWF) shows low utilization, with only 71.5% of the 2024-25 Revised Estimates disbursed.
- **Price Stabilization** - Uneven distribution of Price Stabilisation Fund (PSF) funds to states and agencies like NAFED and Kendriya Bhandar is observed.
- **Technological Advancements** - Computerization of Consumer Commissions has improved case management and access to justice by reducing delays.
- **Time Standardization** - The lack of mandatory Indian Standard Time (IST) adoption by Telecom and Internet Service Providers hinders cybercrime investigations due to time discrepancies.

Unlawful Activities (Prevention) Act 1967

Ministry of Home Affairs has designated the group located in J & K as an illegal association under the **illegal operations (Prevention) Act of 1967**, consequently placing a 5-year restriction on its operations.

- **UAPA Act 1967:**
- This legislation was 1st introduced as the Unlawful Activities (Prevention) Ordinance in 1966, in reaction to separatist movements like Naxalbari revolt.
- The Act's goal is to effectively prohibit particular criminal behaviors committed by people and groups, as well as to confront acts of terrorism.
- The 2019 amendment introduced key provisions:
- The Director General of NIA is now permitted to sanction the seizure of terrorism-related properties, which will allow for speedier investigations.
- Central Government has the ability to classify anyone as terrorists.

Revitalizing India's Gas-Based Power Plants

The Indian government is actively working to increase the availability and affordability of natural gas for power generation, aiming to boost its share in the national energy mix

- **Current Operational Challenges** - Gas-based power plants in India face low Plant Load Factor (PLF), hindering their operational efficiency and overall energy sector contribution.
- **Key Policy Initiatives** - Measures include placing Liquefied Natural Gas (LNG) under the Open General License (OGL) category, streamlining infrastructure development, and implementing policy reforms to incentivize gas-based power production.
- **Strategic Focus & Impact** - These initiatives are designed to enhance the viability of gas-based power generation, ensuring a more efficient and diversified energy portfolio for India.

Balochistan Liberation Army (BLA)

BLA recently seized control of a passenger train, the Jaffar Express in Baluchistan, taking over 100 hostages.

- **Group Definition** - BLA is a separatist organization operating in Pakistan's Balochistan province, seeking an independent Baloch state through armed struggle.
- **Key Objectives & Actions** - BLA conducts attacks against Pakistani security forces and government projects, notably opposing the China-Pakistan Economic Corridor (CPEC).
- **Historical Roots** - The BLA's origins trace back to the Baloch nationalist movement of the 1940s, fueled by perceived marginalization and demands for autonomy or independence from Pakistan.
- **Opposition** -Pakistan, US, and UK have designated the BLA as a terrorist organization, reflecting the group's violent methods and destabilizing activities in the region.

Economy

India's Inflation Eases: February 2025 Consumer price Index Report

- **Overall Inflation Decline:** India's CPI-based inflation fell to 3.61% in February 2025, marking the lowest rate since July 2024.
 - Rural - 3.79%
 - Urban - 3.32%
- **Significant Food Inflation Reduction:** The Consumer Food Price Index (CFPI) inflation dropped to 3.75%, the lowest since May 2023.
- **Sector-Specific Inflation:** Fuel & light decreased to -1.33%
 - Education remained at 3.83%
 - Housing inflation slightly increased to 2.91%
 - Health rose to 4.12%
- Transport & communication increased to 2.87%

Environment

Indian Railways Joins Mission Amrit Sarovar (MAS) to Tackle Water Scarcity

Recently Indian Railways has partnered with the Union Government's Mission Amrit Sarovar.

- **MAS Initiated in** - April 2022.
- **Aims-** To address water shortages and enhance groundwater replenishment nationwide, creating or revitalize 75 ponds per district.
- **Mission Launch & Goals:** Launched in April 2022, Mission Amrit Sarovar aims to create or revitalize 75 ponds per district, tackling water scarcity and boosting groundwater recharge.
- **Progress & Impact:** By October 2024, over 68,000 ponds were successfully rejuvenated.
- **Railway's Role** - The Indian Railways has integrated into Phase 2, contributing by desilting, excavating, and constructing water bodies near railway lines.

Mycelium Bricks

- **Mycelium Bricks** - These are bioengineered construction materials composed of fungal mycelia, sawdust, and husk, forming a durable, lightweight structure.
- **Development by** - Roha Biotech (IIT Madras Incubated) Material **Composition** - Mycelium, the fungal root structure, creates a fibrous network that solidifies, binding organic waste into usable bricks.
- **Key Structural Features** - Mycelium bricks are lightweight with a high strength-to-weight ratio, offering effective thermal insulation and natural fire resistance (with treatments).
- **Environmental Advantages-** These bricks are biodegradable, reducing waste, and boast a low carbon footprint due to their production process, which avoids high-temperature kilns, significantly reducing CO2 emissions.

Plastic Ice VII

Plastic Ice VII, a rare high-pressure ice phase, features freely rotating water molecules within a solid structure, differentiating it from conventional ice.

- **"Plastic" Characteristics** - Refers to its ability to deform under pressure, similar to plastic materials, due to the rotational freedom of its molecules.
- **Conditions for Formation** - This phase exists under extreme conditions, requiring pressures exceeding 3 gigapascals (GPa) & temperatures above 450 Kelvin (177°C).
- **Discovery Methodology** - Advanced neutron-scattering experiments and diamond-anvil cells were crucial in confirming Plastic Ice VII's existence by analyzing atomic-level molecular motions.
- **Implications & Significance** - The discovery expands our understanding of water's behavior in extreme environments, impacting planetary exploration and material development for harsh conditions.

Miscellaneous

International Day of Mathematics (IMD)

- **IMD**- Observed on March 14th.
- **Objective**- Encouraging global participation through diverse activities in schools, museums, and libraries.
- **Significance of Date**- March 14 was chosen as the date for the IDM because it was already celebrated in many countries as Pi Day, based on the fact that some countries write it as 3/14 and the mathematical constant Pi is approximately 3.14.
- **Spearheaded by** - International Mathematical Union.

