

DAILY CURRENT AFFAIRS 13-03-2025

GS-1

- 1. Jalantheeswarar Temple
- 2. World's Oldest Impact Crater
- 3. Vanuatu

GS-3

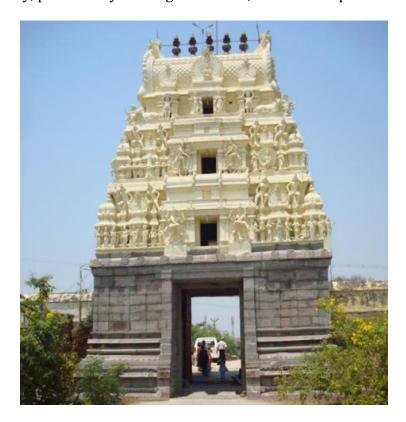
- 4. Insider Trading
- 5. Tiger Reserve

Jalantheeswarar Temple

Syllabus: GS-1; Art & Culture

Context

The Jalanatheswarar temple at Thakkolam in Ranipet district, a treasure trove of Tamil history, particularly the reign of Cholas, is in bad shape.



About

> The Jalantheeswarar Temple, also known as Thiruvooral, is a significant Hindu temple dedicated to Lord Shiva, located in Thakkolam village in the Ranipet district of Tamil Nadu, India.

Location and Deity

- The temple is dedicated to Lord Shiva, worshipped as **Jalantheeswarar**.
- > The unique feature of the deity is that it is represented by a **lingam made of sand**, known as **Theenda Thirumeni** (a rare form of Shiva lingam).

Historical Background

> The temple's origins date back to the **Pallava dynasty**, with later expansions and renovations carried out by the **Chola dynasty**.

> The present masonry structure was built during the **Nayak period** in the **16th** century.

Architectural Features

- > The temple complex spans approximately **1.5 acres** and is enclosed by **concentric granite walls**.
- > It features a **three-tiered gopuram** (gateway tower) that serves as the main entrance.
- > The sanctum sanctorum houses the **sand lingam** of Jalantheeswarar, which is a unique and rare representation of Lord Shiva.

Religious Significance

- The temple is one of the **275 Paadal Petra Sthalams**, which are Shiva temples glorified in the **Tevaram hymns** composed by the **Tamil Saivite Nayanars**.
- > It holds immense spiritual importance as it is associated with the **Tevaram hymns** of **Sambandar**, one of the most revered Saiva poet-saints.

Sambandar and His Connection

- ➤ **Thirugnana Sambandar**, a 7th-century CE Saiva poet-saint, is one of the most prominent Nayanars. He is known for his devotion to Lord Shiva and his prolific compositions.
- According to Tamil Shaiva tradition, Sambandar composed **16,000 hymns**, of which **383** (or **384**) hymns with **4,181 stanzas** have survived. These hymns are part of the **Tevaram**, a sacred text in Tamil Shaivism.
- > Sambandar's hymns glorify the Jalantheeswarar Temple, highlighting its spiritual and historical significance.

Cultural and Spiritual Importance

- > The temple is not only a place of worship but also a testament to the rich architectural and cultural heritage of Tamil Nadu.
- > It attracts devotees and history enthusiasts alike, offering a glimpse into the **ancient Dravidian temple architecture** and the **devotional literature** of the Nayanars.

World's Oldest Impact Crater

Syllabus: GS-1; Geography

Context

➤ In Western Australia, researchers have made a significant discovery: they have found the oldest meteorite impact crater in the world. It is estimated that a huge meteorite struck the Earth 3.5 billion years ago, creating the North Pole Dome Site in the Pilbara region.



About

The world's oldest confirmed impact crater is the Yarrabubba crater in Western Australia.

Yarrabubba Crater: Overview

Location: Western Australia

➤ **Age**: ~2.229 billion years old

➤ **Diameter**: ~70 km (estimated)

➤ **Discovery**: Identified as an impact structure, but its age was confirmed in 2020 using uranium-lead dating of zircon and monazite minerals.

> **Type**: Eroded impact crater (not visible as a traditional crater)

Significance in Earth's History

Climate Impact:

- The impact coincides with the end of a global ice age (Huronian glaciation).
- o It might have contributed to global warming by releasing water vapor, a greenhouse gas, into the atmosphere.

➤ Geological Importance:

- o Provides insights into early Earth conditions and asteroid impacts.
- One of the few well-dated ancient impact structures.

Comparison with Other Impact Craters:

- **Vredefort Crater (South Africa)** (~2.02 billion years old) was previously considered the oldest but is younger than Yarrabubba.
- Chicxulub Crater (Mexico) (~66 million years old) is famous for the dinosaur extinction event.

What is an Asteroid?

- ➤ **Definition**: Asteroids are rocky, airless remnants from the early solar system, primarily found in the **Asteroid Belt** between **Mars and Jupiter**.
- **Composition**: Made of rock, metal, and sometimes organic compounds.
- > Types:
 - o **C-type (Carbonaceous)** Most common, rich in carbon, found in the outer belt.
 - o **S-type (Silicaceous)** Made of silicate and nickel-iron, found in the inner belt.
 - M-type (Metallic) Composed mostly of iron and nickel.

How Do Asteroids Create Craters?

- When an asteroid collides with a planetary body, it releases a huge amount of kinetic energy.
- This energy forms an **impact crater** with characteristic features:
 - Crater Rim Elevated boundary.
 - **Ejecta Layer** Material thrown out during impact.
 - o **Central Peak** Forms in larger craters due to rebound effect.
 - Shock Metamorphism High-pressure changes in minerals.

Famous Impact Craters on Earth

1. Yarrabubba Crater (Australia)

- **Age**: 2.229 billion years (oldest known impact crater).
- **Diameter**: ~70 km.

• **Significance**: Linked to climate change and the end of a global ice age.

2. Vredefort Crater (South Africa)

- **Age**: \sim 2.02 billion years.
- **Diameter**: 250-300 km (largest confirmed crater).
- **Significance**: One of Earth's best-preserved ancient impact sites.

3. Chicxulub Crater (Mexico)

- Age: ~66 million years.
- Diameter: ~ 150 km.
- **Significance**: Associated with the mass extinction of dinosaurs (Cretaceous-Paleogene event).

4. Meteor Crater (USA)

- **Age**: \sim 50,000 years.
- **Diameter**: ~1.2 km.
- **Significance**: One of the best-preserved craters on Earth, caused by a small iron asteroid (\sim 50 meters).

5. Lonar Crater (India)

- **Age**: \sim 52,000 years.
- **Diameter**: ~1.8 km.
- **Significance**: One of the few impact craters on basaltic rock, located in Maharashtra.

Effects of Asteroid Impacts

> Short-term effects:

- o Massive explosions, shock waves, earthquakes.
- o Tsunamis (if impact occurs in an ocean).
- Wildfires due to heat energy release.

Long-term effects:

- Climate change (dust blocks sunlight, cooling effect).
- o Mass extinctions (Chicxulub impact led to 75% species extinction).
- o Formation of new minerals and landscapes.

Vanuatu

Syllabus: GS-1; Geography- Mapping

Context

Vanuatu PM cancels Lalit Modi's new passport



1.Basic Information

> Official Name: Republic of Vanuatu

> Capital: Port Vila

Location: South Pacific Ocean, east of Australia

➤ **Geography:** Archipelago of 83 islands, mostly volcanic

2. Historical Background

Originally inhabited by the Melanesian people.

- European explorers, including Captain James Cook (1774), mapped the islands.
- **Colonization:** Jointly ruled by Britain and France as the New Hebrides (1906).
- ➤ **Independence:** Gained independence on **July 30, 1980**, and renamed Vanuatu.

3. Political System

- ➤ **Government:** Parliamentary democracy
- **President:** Ceremonial head of state, elected for five years
- Prime Minister: Holds executive power, elected by Parliament
- > Parliament: Unicameral, 52-member legislature

4. Economy

- ➤ **GDP:** ~ \$1 billion (small, agriculture-based economy)
- ➤ Major Sectors: Agriculture (coconuts, kava, coffee), tourism, fishing, and offshore financial services
- Currency: Vanuatu Vatu (VUV)
- Challenges: Limited infrastructure, vulnerability to natural disasters

5. Demographics & Culture

- ➤ **Population:** ~320,000 (2024 estimate)
- ➤ Ethnic Groups: Predominantly Melanesian (~98%)
- > Languages:
 - Bislama (Creole, widely spoken)
 - English & French (official)
 - Over 100 local languages (one of the highest linguistic diversities)
- **Religion:** Christianity (Presbyterianism, Anglican, Catholicism)

6. Climate & Environmental Issues

- ➤ **Climate:** Tropical, with a wet and dry season
- > Natural Disasters: Cyclones, earthquakes, volcanic eruptions, rising sea levels
- ➤ **Vulnerability:** Ranked among the world's most disaster-prone nations (Climate Risk Index)
- ➤ Initiatives: Active in climate change adaptation and resilience programs

7. International Relations & Strategic Importance

- > UN Membership: Since 1981
- Regional Organizations: Pacific Islands Forum (PIF), Melanesian Spearhead Group (MSG)
- ➤ **Diplomatic Relations:** Close ties with Australia, New Zealand, China, and regional partners

Geopolitical Importance:

- Strategic location in the Pacific
- o Increasing Chinese investments in infrastructure

Insider Trading

Syllabus: GS-3; Economy

Context

- ➤ The Indian stock market has long been governed by the Securities and Exchange Board of India (SEBI), a regulatory body designed to prevent fraudulent practices such as pump-and-dump schemes, insider trading, and artificially inflated valuations.
- ➤ However, a growing section of the public is now calling for a similar body to oversee the real estate sector, where analogous unethical practices persist unchecked.

1. What is Insider Trading?

> **Insider Trading** refers to buying, selling, or dealing in securities of a listed company based on unpublished price-sensitive information (UPSI) by insiders. It is considered an unfair trade practice and is illegal in most jurisdictions, including India.

2. Key Terms Related to Insider Trading

- Insider Any person who has access to unpublished price-sensitive information, such as company executives, directors, employees, auditors, legal advisors, or family members of these individuals.
- Unpublished Price-Sensitive Information (UPSI) Any non-public information that can impact a company's stock price if made public. Examples include financial results, mergers, acquisitions, or major contracts.
- > **Trading Window** A specific time period when insiders are allowed to trade stocks legally, typically after financial disclosures.
- Prohibited Period The time during which insiders are restricted from trading, often before earnings announcements.

3. Legal Framework Governing Insider Trading in India

1. SEBI (Prohibition of Insider Trading) Regulations, 2015

- Defines insiders and UPSI.
- Prohibits trading based on UPSI.

www.india4ias.com

 Requires listed companies to have a structured disclosure process for pricesensitive information.

2. Companies Act, 2013

- Section 195 prohibits insider trading.
- o Defines penalties for non-compliance.

3. SEBI Act, 1992

 SEBI has the authority to investigate and penalize those involved in insider trading.

4. Punishments & Penalties for Insider Trading

SEBI (Prohibition of Insider Trading) Regulations, 2015

o A minimum fine of ₹10 lakh, which can go up to ₹25 crore or three times the profit gained from insider trading, whichever is higher.

• Companies Act, 2013

- o Imprisonment of up to 5 years.
- Fines ranging from ₹5 lakh to ₹25 crore.

5. Landmark Insider Trading Cases in India

- **Rakesh Jhunjhunwala Case (2021)** SEBI fined the famous investor for alleged insider trading.
- Rajiv Gandhi Equity Savings Scheme (RGESS) Scam (2015) Cases of insider trading surfaced related to stock manipulations.

6. Ethical and Economic Implications

- **Unfair Advantage** Insiders gain at the cost of ordinary investors.
- Market Manipulation Reduces investor confidence in stock markets.
- **Legal & Compliance Burden** Companies must ensure strict compliance, increasing regulatory costs.

7. Measures to Prevent Insider Trading

- **Strict SEBI Regulations** Companies must disclose price-sensitive information promptly.
- Corporate Governance Mandatory disclosures by key management personnel.
- **Whistleblower Policies** Encouraging employees to report unethical trading practices.
- Automated Surveillance by SEBI Using AI and big data to detect unusual trading activities.

Tiger Reserve

Syllabus: GS-3; Biodiversity

Context

India has added the 58th Tiger Reserve to its tally, with the latest entrant being Madhav Tiger Reserve in Madhya Pradesh's Shivpuri.

About

- ➤ A **Tiger Reserve** is a **protected area** designated under **Project Tiger** to conserve and protect tiger populations in India.
- ➤ These reserves are governed by the **National Tiger Conservation Authority** (NTCA) and include **core and buffer zones** for tiger conservation.

Key Facts:

- First Tiger Reserve in India: Jim Corbett Tiger Reserve (Uttarakhand, 1973)
- > Total Number of Tiger Reserves in India (as of 2024): 55
- ➤ Largest Tiger Reserve: Nagarjunsagar-Srisailam Tiger Reserve (Andhra Pradesh & Telangana, 3,728 sq. km)
- > Smallest Tiger Reserve: Bor Tiger Reserve (Maharashtra, 138 sq. km)
- > State with the Most Tiger Reserves: Madhya Pradesh (7 reserves)
- ➤ Highest Tiger Population: Madhya Pradesh (~785 tigers as per 2022 census)

Structure of a Tiger Reserve:

- Core Zone (Critical Tiger Habitat CTH)
 - o Strictly protected area with minimal human activity.
 - No human settlements or developmental activities allowed.
- > Buffer Zone
 - Surrounds the core zone and permits limited human activities.
 - Supports ecotourism and sustainable development programs.

Tiger Conservation in India:

1. Project Tiger (1973)

- **Launched by:** Government of India
- ➤ **Aim:** To protect Bengal Tigers and their habitats
- ➤ **Implementing Agency:** NTCA (National Tiger Conservation Authority)
- ➤ **Significance:** Helped increase the tiger population from **1,411 (2006) to 3,167** (2022).

2. National Tiger Conservation Authority (NTCA)

- **Established:** 2005 under the **Wildlife Protection Act, 1972 (Amendment)**
- **Functions:**
 - o Approves tiger conservation plans.
 - Ensures funding & monitoring of reserves.
 - o Regulates tourism in tiger habitats.

3. All India Tiger Estimation (Conducted every 4 years)

- Latest Census (2022): 3,167 tigers in India.
- ➤ **Method Used:** Camera Traps, DNA analysis, and Pugmark Tracking.

Challenges in Tiger Conservation:

- ➤ **Habitat Loss:** Deforestation and infrastructure projects affect tiger corridors.
- **Poaching & Illegal Wildlife Trade:** Demand for tiger skin, bones, and body parts.
- **Human-Wildlife Conflict:** Encroachment into tiger habitats leads to conflicts.
- ➤ **Climate Change:** Affects prey populations and forest ecosystems.
- ➤ **Tourism Pressure:** Unregulated tourism disturbs natural habitats.

Government Initiatives for Tiger Conservation:

- **Project Tiger (1973)** Flagship conservation program.
- ➤ M-STrIPES (Monitoring System for Tigers Intensive Protection & Ecological Status) App-based monitoring tool by NTCA.
- **Eco-Development Programs** Engaging local communities in conservation efforts.
- > **Translocation of Tigers** Ensuring genetic diversity by relocating tigers from high-density areas to low-population reserves.

India's Global Role in Tiger Conservation

➤ India is home to **75% of the world's wild tigers**.

- > St. Petersburg Tiger Summit (2010): India committed to doubling its tiger population by 2022 under the TX2 initiative.
- ➤ **Global Tiger Forum (GTF):** India leads tiger conservation efforts globally.

Major Tiger Reserves in India

