

**DAILY
CURRENT
AFFAIRS
ANALYSIS**



LAKSHYA ACADEMY®

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1 - Quarrying Poses a Threat to Hampi's Legacy:

GS I

Indian Culture

- **Why in News?**
- Hampi, a UNESCO World Heritage Site located in the Vijayanagara district of Karnataka, is currently facing environmental challenges due to nearby stone quarrying activities. Concerns have been raised by environmentalists and tourists alike, who fear that these activities could compromise the site's historical and ecological integrity.
- **Key Facts About the Vijayanagara Empire and Hampi**
- **Vijayanagara Empire:**
- **Foundation:** Established in 1336 by brothers Harihara and Bukka, who had previously served under Muhammad-bin-Tughlaq.
- **Break from Delhi Sultanate:** The brothers rebelled against the Delhi Sultanate, founding an independent state in Karnataka with Vijayanagara as the capital, situated on the banks of the Tungabhadra river.
- **Inspiration:** The establishment of the Vijayanagara Empire was greatly influenced by the scholar and saint Vidyaranya.
- **Dynasties:** The empire was governed by four prominent dynasties—Sangama, Saluva, Tuluva, and Aravidu.
- **Notable Ruler:** Krishnadevaraya (1509-29) from the Tuluva dynasty, was one of the most renowned rulers, known for his work on statecraft, *Amuktamalyada*, written in Telugu.
- **Hampi:**
- **Location:** Situated in the Bellary District of Karnataka, Hampi encompasses the remains of the Vijayanagara Empire's capital city from the 14th to the 16th century CE.
- **Architectural Marvels:** The temples in Hampi are known for their broad chariot streets lined with pillared mandapas.
- **Significant Structures:** Notable sites include the Krishna temple complex, Narasimha, Ganesa, Hemakuta group of temples, Achyutaraya temple complex, Vitthala temple complex, Pattabhirama temple complex, and the Lotus Mahal complex.
- **UNESCO Recognition:** Hampi was designated as a World Heritage Site by UNESCO in 1986.

- **Decline:** The Vijayanagara Empire was defeated by a coalition of Deccan sultanates in 1565 at the Battle of Talikota, leaving Hampi in ruins.
- **Vittala Temple:**
 - **Construction:** Built in the 15th century during the reign of Devaraya II of the Vijayanagara Empire.
 - **Dedication:** The temple is dedicated to Vittala (Lord Vishnu) and is also referred to as the Vijaya Vittala Temple.
 - **Notable Features:** The temple is famous for its stone chariot and musical pillars, with the stone chariot also depicted on the ₹50 currency note.
- **Hampi Chariot:**
 - **Significance:** The Hampi Chariot is one of three famous stone chariots in India, the others being in Konark (Odisha) and Mahabalipuram (Tamil Nadu).
 - **Construction:** Built in the 16th century by King Krishnadevaraya, it serves as a shrine dedicated to Garuda, the vehicle of Lord Vishnu.
- **Virupaksha Temple:**
 - **Historical Background:** This 7th-century temple is dedicated to Lord Shiva and is located in Hampi, Central Karnataka.
 - **Main Deity:** Lord Virupaksha, also known as Pampapathi, is the temple's primary deity.
 - **Architecture:** The temple exemplifies the Vijayanagara architectural style and was constructed by Lakhan Dandesha, a nayaka under Deva Raya II of the Vijayanagara Empire.
- **Vijayanagara School of Temple Architecture:**
 - **Diverse Structures:** The architectural style encompassed a variety of structures including temples, monolithic sculptures, palaces, official buildings, cities, irrigation systems, step wells, and tanks.
 - **Blend of Styles:** The architecture of this period uniquely combined Hindu and Islamic elements.
- **Key Features:**
 - The temples featured intricately decorated walls with carvings and geometrical patterns.
 - Goupurams were constructed on all sides of the temples.
 - Monolithic rock pillars and pillars engraved with the mythical creature Yali (Horse) were common.
 - Temples often had multiple mandaps, with the central one known as the Kalyan mandap.
 - The concept of secular buildings within temple premises was introduced.

- **Notable Structures:** Important structures from this period include the Mahanavami Tibba, Kalyana Mandapas, and the Hazara Ram Temple, with decorative elements featuring horses and grand gateway towers known as Raya Gopurams.
- **Conclusion and Way Forward:**
- The ongoing quarrying activities near Hampi pose a significant threat to the preservation of this historical and cultural treasure. It is imperative for the government and relevant authorities to enforce strict regulations to protect the site's integrity. Increased awareness and sustainable practices must be promoted to ensure that Hampi's legacy continues to inspire future generations. The preservation of such heritage sites is not just a responsibility but a commitment to safeguarding our shared cultural history.
- *Source → The Hindu*

2 - High Temperatures Disrupting Flight Operations in Leh:

GS III

Disaster Management

- **Context/Why in News?**
- Recent reports highlight that several airlines have canceled flights to Leh, attributing the disruptions to unusually high temperatures in the region. This has raised concerns over the growing impact of climate change on flight operations, particularly in mountainous and cold desert regions like Leh, where the environment is becoming increasingly unpredictable.
- **Introduction:**
- The rising temperatures in India's cold desert of Leh-Ladakh, driven by climate change, have started affecting critical sectors, including aviation. These changes are particularly concerning given the region's strategic importance and the necessity of reliable air travel. As temperatures climb, airlines are facing new challenges that complicate operations, necessitating a closer look at how global warming is reshaping the aviation industry.
- **Impact of High Temperatures on Aircraft Operations:**
- **Reduced Lift:** Higher temperatures result in less dense air, which reduces the lift generated by aircraft wings. This necessitates higher takeoff speeds and longer runways, negatively impacting the efficiency and safety of flight operations.

- **Engine Performance Deterioration:** The thinning air at elevated temperatures contains less oxygen, impairing the combustion process within aircraft engines. This leads to reduced thrust, making takeoffs more challenging and potentially dangerous.
- **Extended Landing Distances:** The decreased air density also diminishes the effectiveness of reverse thrust during landings. This requires longer runway distances for deceleration, which can be problematic, especially at high-altitude airports.
- **Operational Constraints:** Airports at higher altitudes, where air density is already low, are particularly vulnerable to these temperature-induced challenges. During extreme heat, restrictions such as reduced takeoff weights or even complete suspension of operations may be necessary.
- *Note:* Global temperatures have increased by approximately 1.1 degrees Celsius since 1880, with India experiencing a rise of around 0.7 degrees Celsius since 1900.

- **Principle of Aircraft Flight Operation:**

- **Lift:** The upward force that enables an aircraft to rise off the ground.
- **Drag:** The resistance encountered by an aircraft as it moves through the air.
- **Thrust:** The forward force produced by aircraft engines.
- **Weight:** The downward force due to the aircraft's mass, including its cargo.
- Aircraft achieve flight when the lift force exceeds their weight. This is accomplished by accelerating to sufficient speeds, where the airfoil-shaped wings generate lift through a pressure difference between their upper and lower surfaces. The angle of attack, or the angle between the wing and the oncoming air, plays a crucial role in determining the amount of lift generated.

- **Causes of High Temperatures in Leh-Ladakh:**

- **Altitude:** At an elevation of approximately 3,000 meters, Leh-Ladakh's thinner atmosphere naturally contributes to higher temperature fluctuations.
- **Topography:** The region's unique topography, characterized by the Himalayas and Zaskar ranges, creates a rain shadow effect that limits precipitation, further contributing to higher daytime temperatures.
- **Climate Change:** The global trend of rising temperatures has had a pronounced effect even in traditionally cold desert regions like Leh-Ladakh, altering weather patterns and leading to warmer conditions.
- **Human Activities:** The urbanization of Leh and its surroundings, coupled with increased tourism and military activity, has contributed to the urban heat island effect, exacerbating temperature rises.

- **Conclusion/Way Forward:**

- The situation in Leh-Ladakh is a stark reminder of the broader impacts of climate change on critical infrastructure, including aviation. As global temperatures continue to rise, it is imperative to develop adaptive strategies that ensure the safety and reliability of flight operations in vulnerable regions. This includes exploring technological innovations to improve aircraft performance in extreme conditions, enhancing airport infrastructure to accommodate longer

takeoff and landing distances, and implementing stringent environmental policies to mitigate further climate impacts. Addressing these challenges head-on will be crucial in maintaining the operational integrity of the aviation industry in the face of a warming planet.

- *Source* → *The Hindu*

3 - Spotlight on Tribal Communities: Porja, Bagata, and Konda Dora Tribes:

GS I

Indian Culture

- **Context/Why in News:**

- Recent discussions have brought to light the ongoing struggles of tribal communities in Andhra Pradesh, notably those who contributed significantly to the construction of the Lower Sileru Hydro-Electric Project (LSP) in the 1970s. Despite their historical contributions, the Porja, Bagata, and Konda Dora tribes, residing near Visakhapatnam, continue to face critical shortages in electricity and clean water.

- **Introduction:**

- The Porja, Bagata, and Konda Dora tribes are indigenous groups in the Indian state of Andhra Pradesh, each with unique cultural traditions and social structures. Their historical contributions and current adversities highlight broader issues related to the welfare and development of Scheduled Tribes in India.

- **Key Facts About the Tribes:**

- **Porja Tribe:**

- **Population & History:** The Porja tribe, including sub-groups such as Bondo Porja, Khond Porja, and Parangi Porja, has an estimated population of 16,479 as of the 1991 Census. Originally from Odisha, the Porjas migrated to Andhra Pradesh around 300 years ago in search of fertile land. Historically, they served as palanquin bearers and performed other menial tasks.
- **Etymology:** The name "Porja" is derived from Oriya words meaning "son of a king," reflecting their past employment by the Jeypore rulers.

- **Lifestyle:** The Porjas reside in hilly areas and engage in shifting cultivation, locally known as Podu. Their society is patriarchal, with property and hereditary positions passed down to the eldest son.
- **Social Practices:** Cross-cousin marriages are customary, and there is a formal bride price system. Tattooing is an important aspect of their socio-religious practices. The Porja tribe consists of endogamous sub-groups, each with distinct customs, languages, and food habits. The majority of Porjas in Visakhapatnam are from the Parangi Porja group.
- **Bagata Tribe:**
 - **General Information:** The Bagata, also referred to as Bagatha, Bagat, Bagodi, Bogad, or Bhakta, are indigenous to Andhra Pradesh and Odisha. They practice lineage exogamy, meaning they marry outside their clan or kinship. Marriage is typically arranged through negotiation or elopement, and divorce and remarriage are accepted.
 - **Diet & Beliefs:** Historically, millets were the staple food of the Bagata, though rice has now largely replaced them. The tribe adheres to beliefs in supernatural forces, including magic, witchcraft, and evil spirits. Their religious practices involve worshipping nature through totems and clans.
 - **Dispute Resolution:** Intra-family and intra-tribal disputes are resolved by traditional tribal headmen, while inter-tribal issues are managed by village headmen.
- **Konda Dora Tribe:**
 - **Location & Name:** The Konda Dora are a Scheduled Tribe residing in the Konda Kamberu ranges of the Eastern Ghats, spanning parts of south Odisha and Andhra Pradesh. The name 'Kondadora' translates to 'Lords of the Hill,' combining 'Konda' (hill) and 'Dora' (lord). They are also known by names such as 'Konda Kapu,' 'Oja,' 'Pandava Raju,' and 'Pandava Dora,' and they view themselves as descendants of the mythological Pandavas.
 - **Language & Social Structure:** The Konda Dora originally spoke Kubi/Konda, but now predominantly use a mix of Telugu and Odia. Their settlements are usually homogeneous, maintaining ethnic identity through separate wards in multi-ethnic villages.
 - **Marriage Practices:** Although polygyny and child marriages are not prohibited, adult marriages and monogamy are more common. Cross-cousin marriages are preferred, while parallel cousin marriages are strictly avoided.
 - **Governance:** The tribe has a traditional village council called the Kulam Panchayat, led by a Kula Peda and assisted by a Pillipudamari. There is also an inter-village community council that manages customary affairs.
- **Conclusion/Way Forward:**
 - The ongoing challenges faced by the Porja, Bagata, and Konda Dora tribes underscore the need for targeted development efforts to improve their living conditions. Addressing issues such as electricity and water shortages, while preserving their cultural heritage, should be a priority for policymakers. By enhancing infrastructure and providing support tailored to these communities'

unique needs, there can be a meaningful improvement in their quality of life, reflecting a commitment to the welfare of India's tribal populations.

- *Source → The Hindu*

4 - Cloudbursts in Himachal Pradesh: A Crisis in the Himalayas:

GS III

Disaster Management

- **Context/Why in News?**

- India has reinitiated the import of Tur dal (Pigeon pea) from Mozambique after a temporary halt caused by disruptions from an “anti-India” group. This development highlights the ongoing strategic measures India is taking to stabilize its pulses supply chain and address domestic demand for this crucial legume.

- **Introduction:**

- In the fiscal year 2023-24, India witnessed a significant increase in the import of pulses, marking a return to robust trade volumes and a strategic move to mitigate domestic shortages. This surge in imports includes a notable resurgence of Tur dal from Mozambique, a key supplier of this essential crop.

- **Current State of Pulses Import in India:**

- **Import Statistics:**

- In FY 2023-24, India imported 4.65 million metric tons of pulses, a substantial rise from 2.53 million tons in FY 2022-23. This is the highest level of import since FY 2018-19.
- The total value of pulse imports surged by 93%, reaching USD 3.75 billion.
- Specifically, 7.71 lakh tons of Tur/Pigeon pea were imported, with Mozambique supplying 2.64 lakh tons (approximately one-third). Malawi also plays a significant role as a supplier of Tur to India.

- **Memoranda of Understanding (MoUs):**

- Mozambique has an MoU with India to supply 2 lakh tons of Tur/Pigeon peas annually until 2025-26, ensuring assured market access.
- Malawi is committed to providing an annual supply of 0.50 lakh tons to India.

- **Other Imports:**

- Red lentil imports, particularly from Canada, doubled to 1.2 million tons.
- Yellow peas are sourced from Russia and Turkey.
- South Asian nations, including India, generally import pulses from Canada, Myanmar, Australia, Mozambique, and Tanzania.

- **Status of Pulse Production in India:**

- **Production Statistics:**

- India stands as the largest global producer (25% of global production), consumer (27% of world consumption), and importer (14%) of pulses.
- Pulses occupy around 20% of the area under food grains and contribute approximately 7-10% to the total food grain production in the country.

- **Dominant Pulses:**

- Gram is the leading pulse with a share of around 40% in total production.
- Tur/Arhar follows with a 15-20% share, while Urad/Black Matpe and Moong each contribute about 8-10%.

- **Seasonal Cultivation:**

- Pulses are cultivated in both Kharif and Rabi seasons, with Rabi pulses accounting for more than 60% of the total production.

- **Top Producing States:**

- The leading pulse-producing states are Madhya Pradesh, Maharashtra, Rajasthan, Uttar Pradesh, and Karnataka.

- **Key Facts About Tur Dal (Pigeon Pea):**

- **Importance:**

- Tur dal is a crucial legume crop and an essential protein source in India.

- **Climatic Requirements:**

- Rainfall: Requires 600-650 mm annually, with moist conditions during early growth and dry conditions during flowering and pod development.
- Temperature: Optimal growth occurs at 26°C to 30°C during the rainy season and 17°C to 22°C post-rainy season.
- Soil: Prefers sandy loam or loam but can adapt to various soil types.
- Sensitivity: Low radiation during pod development can lead to poor pod formation if flowering occurs in monsoon or cloudy conditions.

- **Diseases:**
- Key diseases include Wilt, Sterility Mosaic Disease, Phytophthora Blight, Alternaria Blight, and Powdery Mildew.
- **Top Producer States (2019):**
- Karnataka, Maharashtra, Uttar Pradesh
- **Government Initiatives to Boost Pulses Production in India**
- **Policy Support:**
- The Indian government supports pulse farmers by providing Minimum Support Prices (MSP) through organizations such as the National Agricultural Cooperative Marketing Federation of India (NAFED) and the Small Farmers Agri Consortium (SFAC).
- **Programs and Schemes:**
- National Food Security Mission (NFSM) for Pulses.
- ICAR's role in research and variety development.
- Pradhan Mantri Annadata Aay Sanrakshan Abhiyan (PM-AASHA) Scheme.
- **Conclusion/Way Forward:**
- The resumption of Tur dal imports from Mozambique underscores India's strategic approach to ensuring food security and meeting domestic demand. Moving forward, sustained policy support and enhanced domestic production capabilities will be crucial in stabilizing the pulses market. Continued investment in agricultural research and international trade agreements will also play a significant role in strengthening India's position in the global pulses market.
- **Source → *The Hindu***