

SANSKRITI IAS DAILY CURRENT AFFAIRS

21-09-2026

Khejri Tree

News On AIR

Lok Sabha Speaker Om Birla pays respect to Amrita Devi Bishnoi and martyrs protecting Khejri trees in Khejadli village of Rajasthan

Lok Sabha Speaker Om Birla has paid respects to Amrita Devi Bishnoi and all the martyrs who laid down their lives for the protection of...



Why in News: The **Lok Sabha Speaker** paid tribute to **Amrita Devi Bishnoi and other martyrs** associated with the protection of Khejri trees at **Khejadli village, Rajasthan**, during the 18th century.

Ecological Characteristics

- **Khejri (*Prosopis cineraria*)** is the **State Tree of Rajasthan** and is considered sacred in the region.
- It is a drought- and frost-resistant tree capable of surviving temperatures from about **40–45°C in summer to below 10°C in winter**.
- It can grow under low rainfall conditions of about **100–600 mm** and thrives in dry, sandy soils.

Distribution and Adaptation

- It occurs mainly in the **arid and semi-arid regions of Rajasthan, Gujarat, Haryana, Punjab and Delhi**, besides parts of southern India.
- It is a deciduous tree with **feathery leaves and small yellow flowers** adapted to harsh desert conditions.

Ecological and Economic Significance

- As a **nitrogen-fixing tree**, Khejri improves soil fertility and supports the ecology of the **Thar Desert**.
- Its leaves provide important **livestock fodder**, while its nutritious pods are consumed as vegetables.
- Its fruit is used to prepare the traditional Rajasthani dish **Sangri**, while its bark has medicinal uses.

Nevados de Chillán Volcano

Hindustan Times

Chile Volcano Erupts, Sends Ash Column 380 Metres Into the Sky | Videos

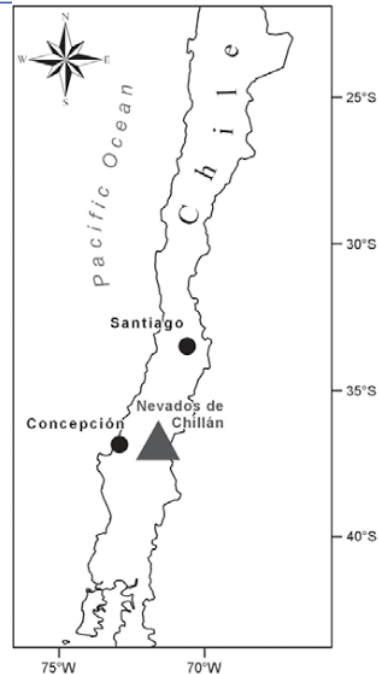
Chile's Nevados de Chillán volcano erupted in an eruptive pulse, sending ash and volcanic material about 380 metres above the crater.



Why in News: Nevados de Chillán in Chile recently witnessed an eruptive pulse that sent ash and volcanic material about **380 metres above the crater**.

Geographical Setting

- Nevados de Chillán is a **composite stratovolcanic complex** in the **Southern Volcanic Zone of the Chilean Andes**.
- It is located in Chile's **Ñuble Region** and is among the country's active volcanic systems.



Major Peaks

- The complex consists of **three overlapping peaks**, namely **Cerro Blanco (Volcán Nevado)**, **Volcán Viejo** and **Volcán Nuevo**.
- **Cerro Blanco** is the highest peak at about **3,212 metres**, while **Volcán Viejo** reaches about **3,089 metres**.

Volcanic Activity

- Documented eruptions date back to the **17th century**, with geological evidence indicating much older activity.
- The volcanic complex is particularly associated with **lava-dome growth, explosions and pyroclastic activity**.

Damodar River

 The Statesman

Historically rare, hilsas spotted swimming upstream in Damodar

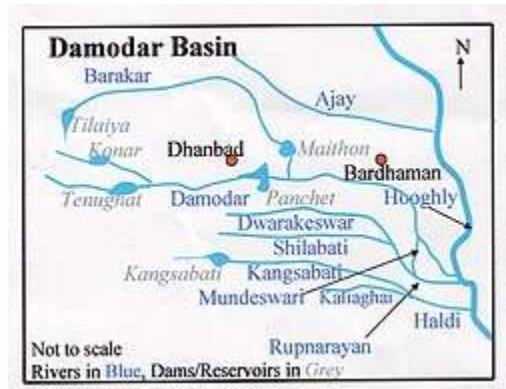
Fishermen harvested prized silver hilsas in the Damodar river in Khandaghosh, creating a stir among the community.



Why in News: Experts in West Bengal are examining the unusual occurrence of **hilsa fish upstream in the Damodar River**.

Geographical Profile

- The **Damodar River** is an important river of the **Ganges River System** flowing through **Jharkhand and West Bengal**.
- It originates in the **Palamau Hills of the Chota Nagpur Plateau** and flows southeastwards before entering the plains of West Bengal.
- The river is about **592 km long** and meets the **Hooghly River at Shayampur**, around 48 km from Kolkata.



Economic Significance

- The Damodar basin is an important **industrial and mineral belt**, traversing the **Jharia, Raniganj, Bokaro, Karanpura and Giridih coalfields**.
- Historically known as the **“Sorrow of Bengal”**, the river was associated with severe flooding in the plains of West Bengal.

Damodar Valley Project

- The **Damodar Valley Corporation (DVC)** was established in **July 1948** to undertake multipurpose development of the river basin.
- Major DVC structures include **Tilaiya, Maithon, Konar and Panchet dams** and the **Durgapur Barrage**, supporting flood control, irrigation and power generation.

Exercise SLINEX-26

TOI The Times of India

Indian, Sri Lankan navies conduct joint maritime exercise SLINEX-26 to boost coordination

NEW DELHI: To boost coordination between Indian and Sri Lankan Navy, the 13th edition of the joint bilateral maritime exercise, SLINEX-26,...



Why in News: The **13th edition of Exercise SLINEX-26** is being conducted at **Visakhapatnam** between the Indian and Sri Lankan navies.

Exercise Profile

- **SLINEX** is a **bilateral naval exercise between India and Sri Lanka**, conceptualised in **2005**.
- The Indian Navy is represented by **INS Kavaratti**, an indigenous Anti-Submarine Warfare Corvette, and **INS Jyoti**, a Fleet Tanker.



Operational Phases

- The exercise begins with a **Harbour Phase** involving professional interactions, cross-deck visits, best-practice sharing, yoga, sports and cultural activities.
- The subsequent **Sea Phase** focuses on coordinated operations to enhance **interoperability and operational synergy**.

Maritime Significance

- SLINEX strengthens **maritime cooperation, interoperability and mutual understanding** between the two navies.
- SLINEX-26 aligns with India's **MAHASAGAR vision** and supports a **secure, stable and inclusive maritime environment** in the Indian Ocean region.

Sulphur

 The Indian Express

As energy infra comes under attack in Russia & West Asia, India has a new fertiliser problem – Sulphur

Import prices of sulphur have more than trebled in last 1 year on the back of wars & increased use for EV batteries.



Why in News: Rising **sulphur prices**, linked in the source to conflicts in **West Asia and Russia-Ukraine**, are affecting the availability of **DAP, SSP and other complex fertilisers** in India.

Chemical Characteristics

- **Sulphur (S)** is a **non-metallic chemical element** occurring naturally as elemental sulphur and in **sulphate and sulphide minerals**.
- It is a brittle, pale-yellow solid, a **poor conductor of electricity** and insoluble in water.
- Sulphur is reported as the **13th most abundant element in Earth's crust**.

Sulfur*	
atomic number	16 [32.059, 32.076]
symbol	S
electron configuration	[Ne]3s ² 3p ⁴
name	sulfur*
atomic weight	
acid-base properties of higher-valence oxides	
crystal structure	
physical state at 20 °C (68 °F)	
Other nonmetals	Solid
Orthorhombic	Strongly acidic

*Also spelled sulphur.
© Encyclopedia Britannica, Inc.

Indian Distribution

- Major occurrences in India include **Puga Valley in Jammu & Kashmir, Barren Island, Andhra Pradesh, Kerala and Himachal Pradesh**.

Industrial Applications

- Sulphur is a major raw material for **sulphuric acid**, which is used in **fertiliser production, ore processing, oil refining and chemical synthesis**.
- It is also used in **rubber vulcanisation, agricultural products, pharmaceuticals, detergents, fungicides, dyestuffs and agrichemicals**.

Rebate of State and Central Taxes and Levies (RoSCTL) Scheme

BS Business Standard

Govt likely to extend textile export scheme RoSCTL beyond September 30

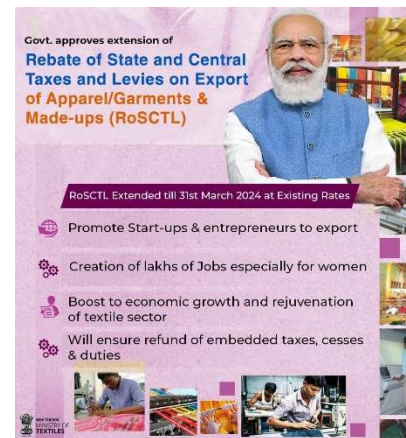
The government may extend the tenure of the Rebate of State and Central Taxes and Levies (RoSCTL) scheme, an export-boosting incentive for...



Why in News: The government is considering extending the **RoSCTL Scheme** beyond **30 September**, supporting the competitiveness of India's textile exports.

Scheme Framework

- **RoSCTL** was introduced by the **Ministry of Textiles in March 2019** as an export incentive for **apparel, garments and made-ups**.
- It rebates embedded **State and Central taxes and levies** that are not otherwise refunded through mechanisms such as GST or duty drawback.
- It succeeded the **Rebate of State Levies (RoSL)** Scheme, which did not provide benefits for central taxes and levies.



Operational Mechanism

- Eligible exporters receive **transferable and sellable duty-credit e-scrips** based on the **Free on Board (FOB) value** of exports.
- The e-scrips are issued electronically through the **Customs system** and can be used for payment of **Basic Customs Duty**.
- The e-scrip is valid for **one year from its creation**, and its duty credit must be transferred in full rather than partially.

Eligibility and Implementation

- Exporters of **garments, apparel and made-ups manufactured in India** are eligible, except entities/IECs on the **DGFT Denied Entity List**.
- The scheme is implemented by the **Department of Revenue, Ministry of Finance**.

- By rebating otherwise unrefunded taxes such as **electricity duty, mandi tax and fuel tax**, the scheme reduces embedded export costs and improves international competitiveness.

Amit Shah to Inaugurate 3rd ANTF Conference



ANI News

Amit Shah to inaugurate 3rd ANTF conference tomorrow; focus on 2026-29 narcotics targets

New Delhi [India], September 21 (ANI): Union Home Minister Amit Shah will inaugurate the 3rd National Conference of Anti-Narcotics Task...



Why in News: Union Home Minister Amit Shah will inaugurate the **3rd National Anti-Narcotics Task Force (ANTF) Conference**.

Institutional Framework

- **ANTF** coordinates efforts of Central and State agencies against **drug trafficking and narcotics-related crimes**.
- The conference brings together enforcement agencies to improve **inter-agency coordination**.

Key Focus

- Discussions will cover **drug trafficking networks, enforcement strategies and intelligence sharing**.
- The government is focusing on strengthening the **Nasha Mukh Bharat** approach and combating illicit drug supply.

India Launches Biovigilance Programme for Patient Safety

DD India

Anupriya Patel launches National Formulary of India 2026, announces Biovigilance Programme

Union Minister of State for Health and Family Welfare and Chemicals and Fertilizers Anupriya Patel on Monday launched the 7th Edition of the...



Why in News: India has launched the **Biovigilance Programme of India (BvPI)** to strengthen monitoring of **adverse events related to biological products**.

Purpose

- BvPI aims to monitor the **safety and effectiveness of biological products**, including vaccines and other biologics.
- It supports early detection and assessment of **adverse events** to improve patient safety.

Institutional Framework

- The programme strengthens India's **pharmacovigilance and regulatory surveillance** system.
- It promotes systematic collection and analysis of safety data on biological products.

National Formulary of India

- The **National Formulary of India (NFI)** provides information on the **rational use of medicines** and supports safe prescribing practices.

Other Important News of the day

Person in News

Karan Yadav Appointed ISL CEO

 The New Indian Express

Karan Yadav appointed new ISL CEO

From co-founding digital publication site to leading commercial strategy for Indian athletes, Yadav begins new chapter in new era of India's...



Why in News: Karan Yadav has been appointed as the **Chief Executive Officer (CEO) of the Indian Super League (ISL)**.

ISL Institutional Structure

- ISL is operated by **Football Sports Development Limited (FSDL)** in partnership with the **All India Football Federation (AIFF)**.
- The CEO oversees the league's **commercial, operational and strategic activities**.

Role & Profile

- Karan Yadav will focus on **league growth, commercial development, fan engagement and stakeholder coordination**.
- His appointment comes as the ISL seeks to strengthen its **professional and commercial framework**.

Environment	Painganga Wildlife Sanctuary  The Times of India <u>Third tiger relocated to Painganga as Maharashtra pushes breeding population plan</u> Maharashtra relocates third tiger to Painganga Wildlife Sanctuary as part of plan to build a breeding population; young Tadoba tigress joins...  Why in News: Maharashtra's tiger conservation programme added a third tiger to the population being established in Painganga Wildlife Sanctuary through the relocation of a young tigress. Location and Physical Features ➤ Painganga Wildlife Sanctuary is located in Yavatmal district, Maharashtra, covering about 325 sq km. ➤ It derives its name from the Painganga/Penganga River, a tributary of the Wardha River, which borders the sanctuary on three sides. ➤ The sanctuary has basaltic rock formations and ancient rock shelters containing petroglyphs. Vegetation and Fauna ➤ Its landscape includes rolling hills, riverine valleys and dense deciduous forests dominated by teak and bamboo. ➤ Important fauna include leopard, four-horned antelope, sambar, nilgai, blackbuck, chinkara, porcupine, jackal and fox. ➤ The sanctuary also supports diverse birdlife, including vultures, kingfishers, cuckoos, kites and bulbuls.
Defence	AASHVAST Lab  The Indian Express <u>New Army labs to weed out Chinese parts and hidden bugs in drones</u> The use of Chinese components in military drones has been a cause of concern for India, especially since many of these drones are used in...  Why in News: The Indian Army plans to deploy six AASHVAST laboratories nationwide for cybersecurity screening of drones and CCTV systems.

Core Features

- **AASHVAST** stands for **Assessment and Analysis of Electronic Systems Hardware for Vulnerabilities and Security Threats**.
- It is a specialized system for testing military electronics for **hidden security vulnerabilities and unauthorized components or malicious code**.
- It was developed by a private firm for the **Directorate General of Electronics and Mechanical Engineering (DG EME)**.

Security Capabilities

- The laboratories can detect approximately **14 types of vulnerabilities** across defence electronic systems.
- They examine both **hardware and software**, including firmware-level vulnerabilities in **UAVs, communication systems and sensors**.
- They can test systems against **GPS spoofing and jamming** and identify hidden passwords, embedded keys and remote-access tools.

Strategic Significance

- AASHVAST strengthens the **cybersecurity and resilience of defence infrastructure** against supply-chain, firmware and electronic vulnerabilities.
- It can help secure **military drones, sensors, communication systems and other electronic platforms** from evolving cyber threats.

Science and Technology

Neodymium-Iron-Boron (NdFeB) Magnets

TH The Hindu

Missing measure in India's magnet mission

Most Indians know the parable of several blind men trying to describe an elephant. One touches its trunk and believes it is a snake.



Why in News: **NdFeB magnets** have gained importance as critical components for **energy transition technologies and advanced manufacturing**.

Material Characteristics

- **NdFeB magnets** are rare-earth permanent magnets primarily composed of **neodymium, iron and boron**.
- Their principal magnetic phase is **Nd₂Fe₁₄B**, having a **tetragonal crystalline structure**.
- They offer high **magnetic energy density, coercivity and remanence**, making them the strongest commercially available permanent magnets.

Performance and Protection

- Typical composition includes about **29–32.5% neodymium, 64–69% iron and 1.1–1.2% boron**.
- Their magnetic performance can decline at high temperatures, while **dysprosium (Dy)** and **terbium (Tb)** are added to improve high-temperature performance.
- NdFeB magnets are susceptible to corrosion and commonly receive a **Ni-Cu-Ni protective coating**.

Applications

- They are widely used in **electric motors, generators, electronics, sensors, speakers, automobiles, medical devices and renewable-energy technologies**.