

Factly Weekly

Compilation

2026

**For UPSC CSE Prelims
Exam**

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July 2026

INDEX

Cicadas (Cicadoidea)	2
Korku Community	3
National Investment Policy for Urea-2026 for Atmanirbhar Bharat (NIPU-2026)	3
New Species of Bees	5
Viksit Bharat Yuva Connect Programme	5
PARIVARTAN Scheme	7
Operation Southern Readiness 26-2	7
Melatonin	8
Trial in Absentia.....	9
Falkland Islands.....	11
Manasbal Lakes	12
Prime Minister's National Apprenticeship Promotion Scheme (PM-NAPS).....	13
VISHWAS, 2026.....	14
Proton Exchange Membrane (PEM) Fuel Cell	15
Bagmati River	16
Key Facts about Peru	17
58th International Chemistry Olympiad	18
Electronic Gold Receipts (EGRs)	19
SAMADHAN Portal 2.0	20
Ex Pitch Black 2026.....	21
Conocarpus Trees	22
Bardia National Park	23
Salal Hydroelectric Project	24
Batukeshwar Dutt.....	24
Investment Friendliness Index	26
Mission Golden Spice and Lakadong Turmeric	27
RajmargYatra App, Digital Local Pass and 'MargMitra' Help Centre	29
Rhine River	30
Key Facts About North Macedonia	31
Journey of the Tiranga/India's National Flag.....	31
Sal (Shorea robusta) and Sal Borer Infestation.....	33
State of Food Security and Nutrition in the World 2026 report	35
Key Facts About Panama.....	36
Hornbills	38
Kharchi Puja.....	38

Cicadas (Cicadoidea)

News: Meghalaya's niangtaser cicadas (*Chremistica ribhoi*) have reappeared after four years, coinciding with the football World Cup.

About Cicadas (Cicadoidea)



Source – Mongabay

- **Cicadas (Cicadoidea)** are **hemipteran insects** known for **their loud, species-specific calls** and **long underground life cycles**.
- **Habitat:** Most cicadas are **canopy dwellers** and are found in **natural forests with large trees**, where they **spend most of their lives underground**.
- India has several cicada species, mainly in the Northeast, including **Meghalaya's World Cup cicada (*Chremistica ribhoi*)** and the **newly discovered Butterfly Cicada**.
- **Characteristics:**
 - **Life Cycle:** Cicadas remain underground for most of their lives and **emerge only when they are ready to metamorphose into adults**.
 - **Sound Production:** **Only male** cicadas produce **loud calls** through vibrations in the **tymbal membrane** to attract **female partners**.
 - **Species-specific Calls:** Each **species produces its own unique call**, and the **collective sound is a very good indicator of forest health**.
 - **Survival Strategy:** A cicada has the best chance of survival when it **emerges while its predators remain dormant**.
 - **Ecological Importance:** Cicadas feed **birds, reptiles, and mammals** while helping in **soil aeration and nutrient cycling**.
- **Conservation Status:** Cicadas as a group are **not listed on the IUCN Red List**, although **some individual species are classified as Least Concern or Near Threatened**.
 - **In India**, cicadas are **not listed under the Wildlife Protection Act, 1972**, and therefore **lack formal legal protection**.

Korku Community

News: Nearly 2,000 Korku community members from 150 villages marched in Madhya Pradesh demanding removal of forest encroachments and protection of livelihoods.

About Korku Community



Figure 1. Source – Tribesof India

- The **Korku** are an **ancient, peaceful Adivasi community** belonging to the **Munda group** and recognized as a **Scheduled Tribe** by the Government of India.
- **Distribution:** The Korku community is mostly found in **Madhya Pradesh, Chhattisgarh, and the adjoining Melghat region of Maharashtra.**
- **Key Characteristics of Korku Community:**
 - **Language:** The Korku community speaks the **Korku language**, which is an **endangered Austroasiatic Munda language** generally written in the **Devanagari script.**
 - **Traditional Self-Governance:** The Korku community follows a traditional **self-governance system known as Chavadi Swashasan.**
 - **Village Administration:** Village affairs are managed through the **Korku Panchayat**, which is headed by a **Patel** and assisted by the **Padihar, Kotwar, and respected elders.**
- **Agriculture and Livelihood:** The Korkus are primarily **cultivators who practise seasonal double-cropping.**
 - Their livelihoods also **depend on forest produce** such as **mahua, chironji, tendu leaves, and medicinal plants.**
- **Ancestor Worship:** The Korku community **regards its dead as gods** and **commemorates them by installing memorial pillars called Munda.**
- **Traditional Dance:** The community performs the **traditional Gadli dance during cultural occasions.**
- **Community Conservation:** During **Hari and Jitori festivals**, the Korkus **undertake tree planting to protect forests** and **strengthen food security.**

National Investment Policy for Urea-2026 for Atmanirbhar Bharat (NIPU-2026)

News: The Cabinet Committee on Economic Affairs approved the National Investment Policy for Urea-2026 for Atmanirbhar Bharat.

About National Investment Policy for Urea-2026 for Atmanirbhar Bharat (NIPU-2026)



Source – PIB

- **National Investment Policy for Urea-2026 for Atmanirbhar Bharat (NIPU-2026)** is a policy to encourage new investments in gas-based urea manufacturing units in India.
- **Piloted by:** This policy is piloted by the **Department of Fertilizers**.
- **Aim:** The policy aims to encourage new investments, increase indigenous urea production, and achieve self-sufficiency.
- **Key Features of NIPU-2026:**
 - **Production Targets:** The policy covers urea manufacturing units and is expected to add one crore metric tonnes of urea production capacity with eight to nine new plants.
 - **Transparent Cost Structure:** The policy separates fixed and variable costs to improve transparency in the pricing framework.
 - **Return on Equity:** The policy provides a Return on Equity (RoE) band of 12% to 16%, with a minimum of 12% and a maximum of 16%.
 - **Foreign Exchange Protection:** The policy reduces foreign exchange risk by converting fixed costs into Indian Rupees after four years based on prevailing exchange rates.

New Species of Bees

News: Researchers discovered two new rare solitary bee species in Arunachal Pradesh's Siang Valley, highlighting Eastern Himalayas' biodiversity and conservation needs.

About New Species of Bees



Source – The Sentinel

- **Elaphropoda Triangulata and Habropoda Adi** are **two newly discovered species of solitary bees** found in Arunachal Pradesh.
- **Discovered by:** Researchers from the Ashoka Trust for Research in Ecology and the Environment (ATREE), Bengaluru, discovered these species.
- **Naming:** **Elaphropoda Triangulata** was named after the **triangular markings on its abdomen**.
 - **Habropoda Adi** was named in honour of the **Adi indigenous community of Arunachal Pradesh**.
- **Scientific importance:** Each species is currently **known from only one male specimen**, making the discovery important, and researchers have called for more surveys to study their distribution, ecology, and conservation status.
- **Habitat and behaviour:** These species **belong to the bee subfamily Anthophorinae**, which mainly consists of **ground-nesting solitary bees**.
 - Unlike honeybees, they **do not live in colonies and usually nest alone**.
- **Ecological role:** Solitary bees are **important pollinators** because they help maintain healthy ecosystems and support agriculture.
- **Conservation concern:** **Habitat loss, infrastructure development, and other human activities could threaten these species**, making the conservation of forests and natural habitats in the Eastern Himalayas essential.

Viksit Bharat Yuva Connect Programme

News: The Ministry of Youth Affairs & Sports, Government of India will organise the Viksit Bharat Yuva Connect Programme (VBYP).

About Viksit Bharat Yuva Connect Programme



Source: PIB

- **Launched by:** It has been launched by **Ministry of Youth Affairs & Sports.**
- **Duration:** It will be **organized across universities and colleges from 16th July to 15th August 2026.**
- **Theme:** It has a theme of **“Nasha Mukht Yuva for Viksit Bharat.”**
- **Aim:** It aims **to connect young citizens with the vision of a developed India while creating awareness about the harmful effects of substance abuse.**
- It seeks **to empower youth to become ambassadors of a healthy, responsible and drug-free India** by combining civic engagement with anti-drug awareness.
- **Target Group:** It will primarily **engage youth in the 15–25 years age group from rural, urban and tribal communities.**
 - Institutions can also participate and they may subsequently **establish MY Bharat Chapters to ensure sustained youth engagement and facilitate implementation of future MY Bharat initiatives.**
 - All registrations and programme-related activities will be carried out through the [MY Bharat Portal](https://viksitbharat.gov.in).
- **Features:**
 - **Interactive student engagement:** It will **engage students through interactive sessions, presentations, awareness activities and digital participation** via the MY Bharat platform.
 - **Youth Icons to lead awareness: Distinguished Youth Icons** including State Champions of the Viksit Bharat Young Leaders Dialogue (VBYLD), winners of the Viksit Bharat Youth Parliament, NSS Awardees, National Youth Awardees and other accomplished youth leaders, **will visit educational institutions to interact with students.**
 - **Focus on the impact of substance abuse:** The youth leaders **will share insights into India’s development journey and explain how substance abuse poses a serious threat** to individual aspirations, social well-being and the country’s overall progress.
 - **Awareness film:** Participants will **watch a specially curated awareness film** featuring the experiences of individuals and families affected by substance abuse, offering a deeper understanding of its personal and societal consequences.

- **Nasha Mukht Bharat Pledge:** It also includes a **Nasha Mukht Bharat Pledge**, through which participants will reaffirm their commitment to leading healthy, drug-free lives and contributing to nation-building.
 - **Recovery Warriors' testimonials:** Wherever feasible, **personal testimonials from Recovery Warriors, in collaboration with NGOs and spiritual organisations**, will be incorporated to reinforce the campaign's message and inspire participants.

PARIVARTAN Scheme

News: MoHUA approved Guidelines for the PARIVARTAN Scheme to replace older polluting trucks and buses in the National Capital Region.

About PARIVARTAN Scheme



Source – ZEE Business

- **PARIVARTAN** stands for 'Programme for Accelerated Renewal and Incentivization of Vehicle Assets for Reducing Transport Air Pollution and Network Emissions'.
- **Implemented by:** It is implemented by the **Ministry of Road Transport and Highways (MoRTH)**.
- **Funded by:** It is funded by the **National Capital Region Planning Board**.
- **Aim:** This scheme aims to **replace older polluting trucks and buses with cleaner Bharat Stage-VI compliant or electric vehicles**.
- **Key Features:**
 - **Total Outlay:** The Scheme has a **total outlay of ₹9,585 crore**.
 - **Financial Incentives:** The Scheme provides **5% interest subvention on vehicle loans**, a **minimum 8% OEM discount**, **tax concessions**, registration fee waivers, fuel vouchers, financial assistance for electric vehicles, and Certificate of Deposit (CoD) trading support.
 - **State Support:** **Rajasthan, Haryana, Uttar Pradesh, and NCT of Delhi** granting **ten-year Motor Vehicle Tax concessions** and **registration fee waivers** on eligible new vehicles.
 - **Digital Platform:** The Scheme will operate through an integrated platform linked with **VAHAN, V-Scrap, DigiELV, the Public Financial Management System (PFMS)**, participating lenders, and fuel voucher systems for transparent benefit delivery.

Operation Southern Readiness 26-2

News: The Indian Navy will host Operation Southern Readiness 26-2, a four-day multinational maritime training engagement, in Kochi from July 20 to 23.

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About Operation Southern Readiness 26-2



Source – DD News

- **Operation Southern Readiness 26-2** is a **four-day multinational maritime training exercise**.
- **Hosted by:** The **Indian Navy** is hosting the exercise **at the Southern Naval Command, Kochi** under the **Indian Navy-led Combined Task Force 154 (CTF 154)**.
- **Partnership:** The exercise is conducted in partnership with the **Combined Maritime Forces (CMF)**.
 - The **CMF is a multinational maritime partnership comprising more than 40 nations**, with the **Indian Navy** playing an active role in advancing collaborative maritime security efforts.
- **Aim:** The initiative aims to **strengthen regional capacity building and enhance collective maritime security** through closer cooperation among participating countries.
- **Key Features**
 - **Comprehensive Training Programme:** The programme combines **classroom instruction, simulator-based learning, and practical onboard training** to provide professional maritime security training and operational exposure.
 - **Training Areas:** Participants receive training in **maritime law, maritime domain awareness, information sharing, counter-narcotics operations, force protection, asymmetric threats, maritime uncrewed systems, damage control, firefighting, maritime communications, survival at sea, and boarding procedures**.
 - **Regional Maritime Cooperation:** The exercise **brings together personnel from Combined Maritime Forces (CMF) partner nations for practical exercises and the exchange of best practices** to strengthen cooperation and collective maritime security.

Melatonin

News: A new study suggests that melatonin may help reduce chronic muscle and joint pain, besides its well-known role in regulating sleep.

About Melatonin

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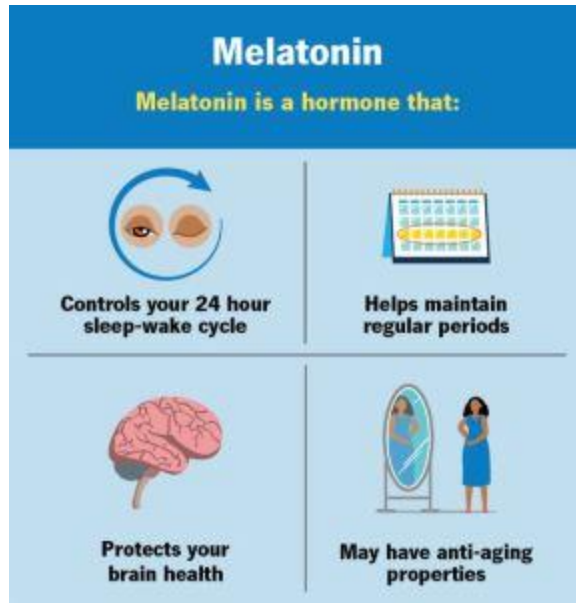


Figure 2. Source – Cleveland Clinic

- **Melatonin** is a naturally occurring indoleamine hormone primarily responsible for regulating the human body's circadian rhythm and sleep-wake cycles.
- **Natural Origin :** Melatonin is naturally secreted by the pineal gland in the brain.
 - Its production increases in darkness and decreases when the body is exposed to light.
- **Synthetic:** Melatonin can also be produced synthetically in laboratories and sold as a dietary supplement, which is known as exogenous melatonin.
- **Functions of Melatonin:**
 - **Sleep Regulation:** Melatonin regulates the body's sleep-wake cycle by increasing in darkness and preparing the body for sleep.
 - **It is widely used to treat insomnia and jet lag.**
 - **Pain Regulation:** Melatonin may reduce chronic muscle and joint pain by dampening pain signals in the brain and spinal cord, reducing inflammation, calming overactive nerves, and protecting cells from oxidative stress.
- **Antioxidative and Neuroprotective Properties:** Nano-formulated melatonin showed enhanced antioxidative and neuroprotective properties because of its sustained release and improved bioavailability.
- **Mitophagy Regulation:** Melatonin improves mitophagy, a process that removes unhealthy mitochondria from cells, and enhances mitochondrial biogenesis, which helps reduce oxidative stress
- **Role in Parkinson's Disease:** Nano-formulated melatonin showed enhanced neuroprotective effects and reduced oxidative stress in Parkinson's disease models, indicating its potential as a therapeutic candidate.
- **Concern:** Melatonin provides only modest benefits based on current evidence and may cause side effects such as daytime sleepiness, dizziness, headaches, nausea, hormonal changes, and mood swings.

Trial in Absentia

News: A Special NIA Court has issued a non-bailable warrant against Hafiz Saeed in the Pahalgam terror attack case. As he is unlikely to appear, the NIA is expected to seek a trial in absentia under Section 356 of the BNSS.

About Trial in Absentia



Source: TH

- A **trial in absentia** is a **criminal trial** conducted **without the accused being present in court**.
- **Key legal provisions:**
 - **Section 356 of the Bharatiya Nagarik Suraksha Sanhita (BNSS)** allows a court **to conduct such a trial if a person declared a proclaimed offender has absconded** to avoid trial and there is **no immediate possibility of arrest**.
 - After **recording its reasons in writing**, the court may continue with the **inquiry, trial, and judgment** as if the accused were present.
 - Under the earlier **Code of Criminal Procedure, 1973 (CrPC)**:
 - **Section 82(4)** allowed proclamation and attachment of the property of an absconding accused.
 - **Section 317** allowed a Judge or Magistrate to conduct proceedings without the accused in certain special situations.
 - **Section 299** allowed evidence to be recorded in the absence of an absconding accused if there was no immediate chance of arrest.
 - These **provisions gave courts limited discretion to proceed without the accused only when**:
 - **the personal presence of the accused was not necessary in the interest of justice, or**
 - **the accused repeatedly disrupted court proceedings.**
 - However, the CrPC **did not permit a full criminal trial in the absence of the accused**. As a result, many trials remained pending for years until the accused was arrested.
- **Applicability:** Trial in absentia is available **only in cases involving serious offences punishable with imprisonment of at least 10 years, life imprisonment, or death, where the accused has been declared a proclaimed offender**
- **Procedural safeguards under Section 356:** Section 356 includes **several safeguards to ensure a fair trial before proceedings** can begin in the absence of the accused. These include:
 - Two consecutive arrest warrants must be issued at least **30 days apart**.
 - A notice must be **published in a local or national newspaper**, giving the accused **30 days** to appear before the court.
 - The notice **must also be displayed at the accused's last known residence**.
 - A **relative or friend of the accused** must be **informed** about the trial.

- The trial cannot begin until **90 days after charges are framed**, giving the accused sufficient time to appear.
- If the **accused does not have a lawyer**, the court must appoint a **defence lawyer at the State's expense** to protect the accused's right to a fair trial.
- **Statements of prosecution witnesses recorded before the trial begins** may be used as evidence against the absconding accused.
 - However, **if the accused later appears or is arrested**, the court may allow the witnesses **to be cross-examined in the interest of justice**.
- As far as possible, **witness statements and examinations should be recorded through audiovisual electronic means**.
 - These **recordings must be preserved to ensure transparency, accuracy, and the integrity of the trial**, and to assist the court if the accused is later apprehended.

Falkland Islands

News: After Argentina's 2-1 victory over England in the semi-final of the 2026 FIFA World Cup, Lautaro Martínez and Giovani Lo Celso celebrated by holding up a banner that read, "*Las Malvinas son Argentinas*," meaning "*The Falkland Islands (Malvinas) are Argentine*."

About Falkland Islands



Figure 3. Source: World Atlas

Falkland Sound.

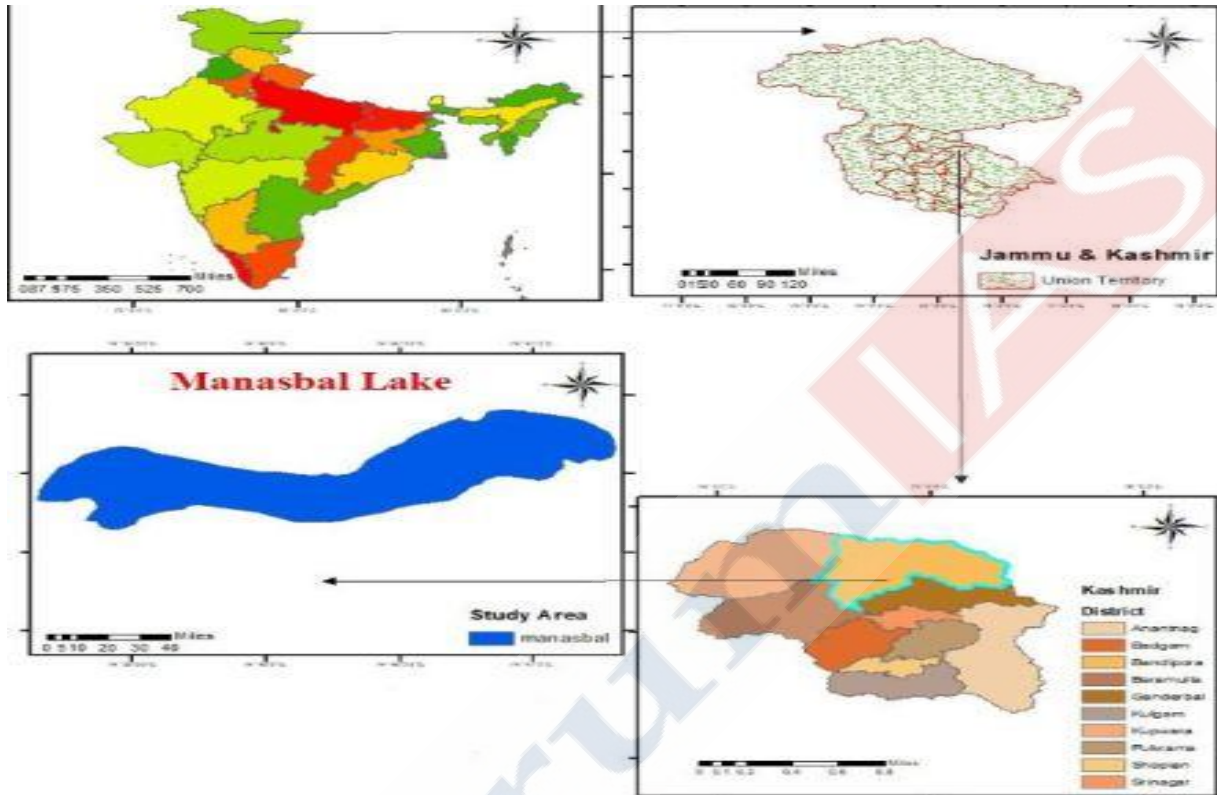
- The central areas of both **large islands** are covered by hills and low mountains, including the **Wickham Heights and Hornsby ranges**.
- **Highest Point:** The highest point in the archipelago is **Mount Usborne on East Falkland**, which rises to **2,312 feet (705 m)**.
- **Shallow streams, ponds, and small lakes** cover only a **small part of the land**.
- Drowned river valleys along the coast form protected natural harbors.

- **Location:** They are archipelago in the **South Atlantic Ocean on the Patagonian Shelf** and is considered a **British overseas territory**.
 - They are situated **483km (300 miles) off the east coast of Argentina**.
- **Capital:** The capital is **Stanley (also, Port Stanley)**.
- **Area:** They covers a **total area of 12,173 sq.km**.
- **Geography:**
 - They are an **archipelago made up of two large islands, East Falkland and West Falkland and 776 smaller islands and islets**.
 - They have a **rugged coastline**, and **most of the land is hilly, rocky, and covered with low shrubs and coarse grass**.
 - The **two main islands** are separated by

Manasbal Lakes

News: Manasbal Lake in central Kashmir's Ganderbal district is showing ecological recovery with the return of migratory birds.

About Manasbal Lake



Source – ResearchGate

- **Manasbal Lake:** It is the **deepest natural freshwater lake in Jammu and Kashmir** and is known as the “**Supreme Gem of all Kashmir Lakes.**”
- **Location:** The lake is **located in Ganderbal district, Srinagar**, at an altitude of about 1,585–1,600 metres in the **Jhelum Valley**.
- **Surroundings:** The lake is surrounded by **the Baladar mountains**, the **Karewa plateau** in the north, and **the Ahtung hills** in the south.
- **Size and depth:** The lake covers about 2.81 km² and reaches a **depth of up to 13 metres (43 feet)**.
- **Water Source:** The lake has a **drainage basin of about 10 km²** and receives water **mainly from precipitation**.
- **Outflow:** The outflow of the lake is **regulated into the Jhelum River**.
- **Thermal Stratification:** The lake is monomictic, which means it circulates once in a year for a short time.
 - It shows **thermal stratification from March to November**, with a **thermocline depth of 9 metres**.
- **Ecology and Biodiversity:**
 - **Rich Aquatic Flora:** The lake supports **macrophytes, phytoplankton**, and extensive growth of **Lotus (Nelumbo nucifera)**, which **blooms during July and August**.

- **Diverse Fauna:** The lake is **home to zooplankton, benthos, and fish** such as Schizothorax niger, Schizothorax esocinus, Cyprinus carpio, and Neomacheilus latius.
- **Important Bird Habitat:** The lake is one of the **largest natural habitats for aquatic birds** and **supports many migratory birds**, making it an important birdwatching site.
- **Economic Significance:** The lake supports local livelihoods through **fishing, water supply, tourism**, and the harvesting and marketing of **lotus (Nelumbo nucifera) rootstocks** for food and commercial use.
- **Cultural Heritage:** The lake has the ruins of a **Mughal garden built by Nur Jahan**.
 - Near the lake, there are also the ruins of a 17th-century fort and an ancient temple dating to 800–900 AD.

Prime Minister's National Apprenticeship Promotion Scheme (PM-NAPS)

News: The Government extended the Special Intervention under PM-NAPS for FY 2026–27 to expand apprenticeship opportunities across the North-Eastern Region.

About Prime Minister's National Apprenticeship Promotion Scheme (PM-NAPS)



Source – KNN India

- **Prime Minister's National Apprenticeship Promotion Scheme (PM-NAPS)** is a Government of India scheme **launched in 2016 to promote apprenticeship training through financial support** to establishments.
- **Extension:** It has been **extended for FY 2026–27 to strengthen apprenticeship opportunities in the North-Eastern Region** under the **Special Intervention for Promotion of Apprenticeship**.
- **Objective:** The scheme aims to **develop skilled manpower** through **on-the-job training**, **encourage establishments to engage apprentices**, **provide up-skilling opportunities**, and **increase apprenticeship participation in MSMEs** and underserved regions such as the North-East.
- **Implemented by:** The **Ministry of Skill Development and Entrepreneurship (MSDE)** implements PM-NAPS.

- The FY 2026–27 **special intervention in the North-Eastern Region** will be implemented by the **Indian Institute of Entrepreneurship (IIE), Guwahati**.
- **Legal backing:** The scheme provides financial incentives to establishments engaging apprentices under the **Apprentices Act, 1961**.
- **Key features:**
 - **Financial support:** The scheme provides **financial incentives** to establishments **through partial stipend support for apprentices**.
 - **Stipend support:** Government **shares 25% of the minimum prescribed stipend**, subject to a **maximum of ₹1,500 per apprentice per month**, through the **Direct Benefit Transfer (DBT)** mechanism.
 - **Industry-focused training:** The scheme **promotes industry-aligned, paid on-the-job training** to bridge the gap between education and employment.
 - **Certificate benefit:** Candidates **receive a NAPS certificate after completing training**, which improves their employability.
 - **Inclusive approach:** The scheme **encourages participation from MSMEs, women, marginalized communities, and underserved regions**, including the North-East.

VISHWAS, 2026

News: EPFO has launched VISHWAS, 2026, as a one-time dispute resolution initiative for settlement of damages and penalty-related disputes under EPF laws.

About VISHWAS, 2026

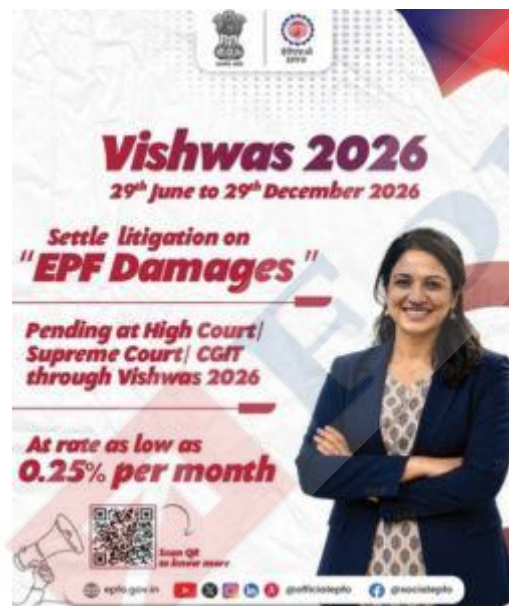


Figure 4. Source – EPFO

- VISHWAS, 2026 is a **one-time dispute resolution initiative** to facilitate amicable **settlement of damages and penalty-related disputes**.
- **Launched by:** The **Employees' Provident Fund Organisation (EPFO)** under the Ministry of Labour & Employment launched the scheme.
- **Objective:** The scheme aims to **promote voluntary compliance, reduce litigation, enable speedy resolution of long-pending disputes, and safeguard the interests of employees**.
- **Timeline:** The scheme came **into effect on 29 June 2026** and will **remain operational for six months from the date of notification**.
- **Four categories:**
 - Cases where **penalty or damages orders are under challenge** before a judicial forum.
 - Final penalty or damages orders **where recovery is pending or partly made, including Recovery Certificate (RRC) cases**.
 - Cases where **notices have been issued but final penalty or damages orders are yet to be passed**.
 - Cases where **notices for penalty or damages are yet to be issued**.

- **Exclusion:** The scheme excludes **fully recovered cases**, cases **involving fraud, misappropriation or deliberate falsification of records**, and cases where **statutory interest has not been fully deposited**.
- **Key features:**
 - **Digital and time-bound process:** Eligible employers can apply online through the EPFO Employer Portal using a Digital Signature Certificate (DSC) or e-Sign through a transparent, fully digital and time-bound process.
 - **Concessional rates:** For defaults before 14 June 2024, damages or penalty will be recalculated at 0.25% per month for defaults up to two months, 0.50% per month for defaults from two to less than four months, and 1.00% per month for defaults exceeding four months.
 - **Interest requirement:** Employers must fully deposit the applicable statutory interest before submitting an application.
 - **Undertaking:** Applicants must furnish an undertaking that no further appeal will be pursued for the dispute settled under the scheme.
 - **Compliance benefit:** The scheme enables employers to regularise legacy EPF compliance at a significantly lower financial cost while supporting quicker resolution of long-pending disputes and improved compliance.

Proton Exchange Membrane (PEM) Fuel Cell

News: Prime Minister Narendra Modi flagged off India's first hydrogen-powered train on the 89-km Jind-Sonapat route in Haryana on July 17.

About Proton Exchange Membrane (PEM) Fuel Cell

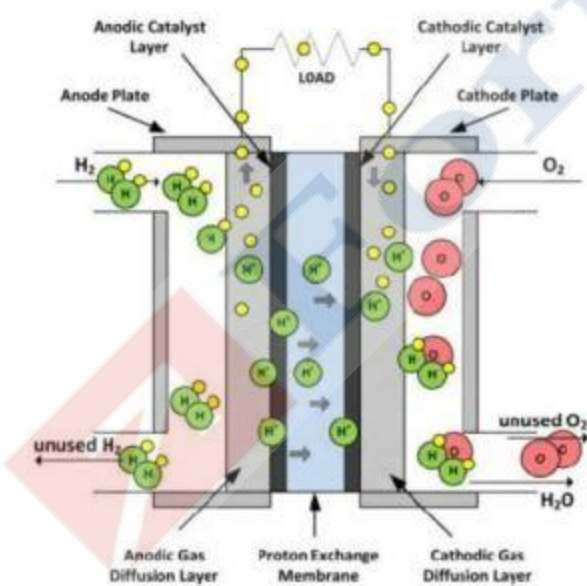


Figure 5. Source – ResearchGate

- **Key Features:**
 - **Continuous Fuel Supply:** Unlike traditional batteries, PEM fuel cells require a continuous supply of hydrogen fuel and oxygen to sustain electricity generation.

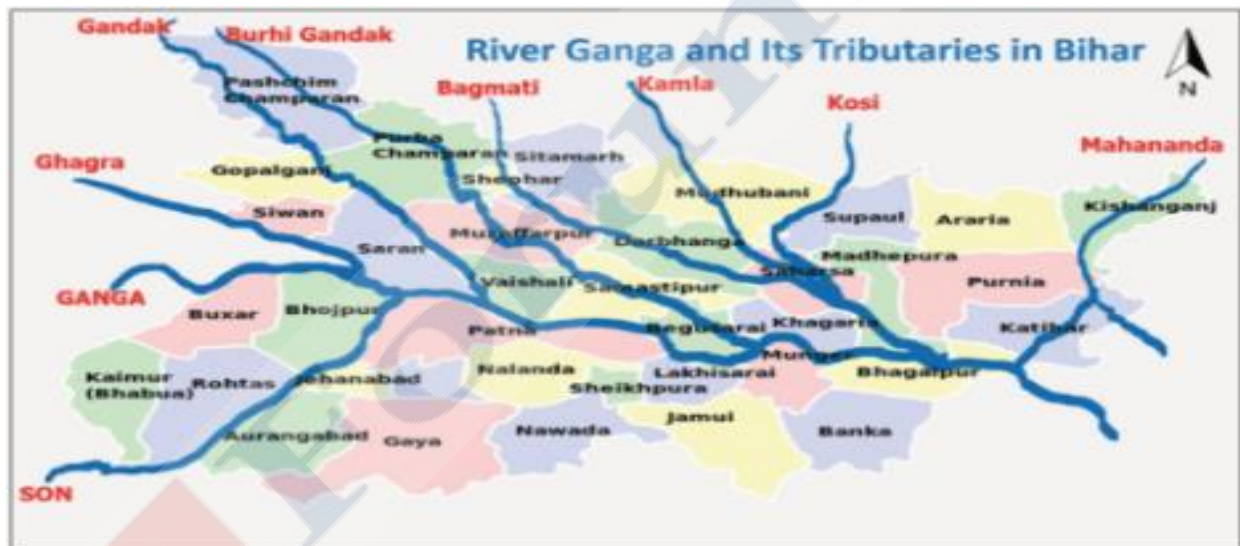
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- **Compact and Efficient Design:** They provide **high power density** in a compact size, making them an **environmentally friendly energy solution**.
- **Low Maintenance:** They **run on hydrogen fuel**, can be **refuelled easily**, and require **significantly less maintenance** than traditional backup power sources.
- **Application:**
 - **Telecom Towers:** PEM fuel cells provide **backup power for telecom towers** during grid outages.
 - They **offer quick start-up**, **operate at relatively low temperatures**, and provide a **clean alternative to diesel generators**.
 - **Portable Devices:** They are used in **laptops, mobile phones, battery chargers, and unmanned aerial vehicles**.
 - **Backup Power Systems:** They are **used as clean backup power systems** where reliable electricity is required and support uninterrupted operations during power interruptions.

Bagmati River

News: Heavy rainfall in Nepal's catchment areas has led to a continuous rise in the water levels of the Gandak, Bagmati, Kamla Balan, and Kosi rivers in Bihar.

About Bagmati River



Source – Mera Apna Bihar

- It flows **through south-central Nepal and northern Bihar**.
- **Origin:** It originates from the **Bagdwar area in the Shivapuri Hills**, located in the **northwestern part of Kathmandu Valley** of Nepal.
 - The river enters India near **Shorwati village** in **Sitamarhi district, Bihar** and joins **Kosi River** at **Badiaghat** in **Khagaria district, Bihar**.
- The Bagmati River basin transacts **three distinct latitudinal physiographic zones** in the **Nepal Himalayas- Mountain Zone, Siwalik Zone and Terai Zone**.
- **Tributary of:** It is a tributary of the **Kosi River**.
- **Length:** It is **597 km (207 km in Nepal and 390 km in India)** long **trans-boundary perennial river**.

- **Dam associated:** The primary dam constructed on the river is the **Dhap Dam** in Nepal.
- **Fauna:** The lower stretch of the river in India provides important habitat for the **Gangetic dolphin** and **gharial**.
- **Religious Significance:** It is considered holy by **both Hindus and Buddhists**.
 - The banks of the Bagmati River are home to various temples, including the **Pashupatinath Temple** which is a **UNESCO World Heritage Site**

Key Facts about Peru

News: At least six people were killed and many others were injured after earthquakes struck Peru's Junín region, causing widespread damage and relief operations.

Key Facts about Peru



Figure 6. Source – World Atlas

Huascarán (6,768 m) is the highest peak in Peru and is located in the Cordillera Blanca, which forms part of the Andes Mountains (Sierra region).

- **River Systems:** The major rivers include the **Amazon, Ucayali, and Madre de Dios**.
- **Important Lake:** Lake Titicaca is shared with Bolivia and is the world's highest navigable lake.
- **Oceanography:**
 - **Humboldt (Peru) Current:** It is a **cold, northward-flowing ocean current** that moves **along Peru's Pacific coast** and strongly influences the country's coastal conditions.

- **Location:** Peru is the **third-largest country in South America** and is located just **south of the Equator**.

- **Boundaries:**

- **Land Boundaries:** Peru shares its borders with **Ecuador and Colombia in the north, Brazil in the east, Bolivia in the southeast, and Chile in the south**.
- **Maritime Boundary:** Peru's western boundary lies along the **Pacific Ocean**.

- **Climate:** Peru has a **tropical climate in the east, a dry desert climate in the west, and temperate to frigid conditions in the Andes**.

- **Physiographic Zones:** Peru is divided into **three major regions** – **Costa (coastal plain) along the Pacific Ocean, Sierra (Andes Highlands) in the central part of the country, and Amazonia (Amazon Basin/Selva region) in the east**.

- **Highest Peak:** **Mount**

- **Upwelling System:** The cold Humboldt Current causes deep, nutrient-rich water to rise to the surface, which supports one of the world's richest marine ecosystems and major commercial fishing zones.
- **Earthquake prone:**
 - **Tectonic Setting:** Peru lies along the **Pacific Ring of Fire** (a highly active seismic belt around the Pacific Ocean).
 - **Reason for Vulnerability:** The **South American Plate** overrides the **Nazca Plate**, and the continued uplift of the **Andes** results in frequent earthquakes.
- **Biodiversity:**
 - **Megadiverse Status:** Peru is among the world's top 20 megadiverse countries, with 36 ecosystems that support more than 25,000 protected plant and animal species and over 4,000 marine species.
 - Peru also has the world's largest diversity of butterflies and ranks third globally in the number of bird species.

58th International Chemistry Olympiad

News: India won four gold medals and secured the joint top rank at the 58th International Chemistry Olympiad, achieving its best-ever performance.

About 58th International Chemistry Olympiad



Source – IE

- The **58th International Chemistry Olympiad** is the world's premier chemistry competition for secondary school students.
- **Host Country:** The 58th International Chemistry Olympiad was held in **Tashkent, Uzbekistan**.
- **Country Participation:** A total of **363 students from 93 countries** participated in the 2026 edition of the Olympiad.

- **Key Aspect related to India:**
 - **India's Position:**
 - India **won four gold medals** and **secured the joint top rank** along with China, Vietnam and the Individual Participant (Russia).
 - **Four Indian students who won gold medals are:**
 1. **Debadatta Priyadarshi** from Bhubaneswar, Odisha
 2. **Harshit Singhal** from Mandi Gobindgarh, Punjab
 3. **Kabeer Chhillar** from Delhi
 4. **Sandeep Kuchi** from Hyderabad, Telangana
 - **This was India's 27th participation** in the International Chemistry Olympiad.
 - **The 2026 edition marked India's best-ever performance** at the competition.
 - **Coordinating Agency:** The **Homi Bhabha Centre for Science Education (HBCSE)**, under the **Tata Institute of Fundamental Research (TIFR)**, conducts India's national selection and training programme.
 - **Funding Agencies:** The programme receives support from the **Department of Atomic Energy (DAE)**, the **Department of Science and Technology (DST)** and the **Ministry of Education (MoE)**.

About International Chemistry Olympiad

- The International Chemistry Olympiad is the world's premier competition for secondary school students in chemistry.
- **Annual Event:** The Olympiad has been held every year since 1968.
- **Nature of Competition:** Students compete through theoretical and practical examinations.
- **Objective:** The Olympiad brings together the best young chemistry students from different countries to compete at the international level.

Electronic Gold Receipts (EGRs)

News: In May 2026, the National Stock Exchange of India introduced Electronic Gold Receipts (EGRs) for buying and selling gold in electronic form.

About Electronic Gold Receipts (EGRs)



Source – BT

- **Electronic Gold Receipts (EGRs)** are **exchange-traded securities** that represent **ownership of physical gold stored** in the Securities and Exchange Board of India (SEBI)-regulated vaults.
- **Launched in:** The **Bombay Stock Exchange** launched **India's first EGR segment** on **October 24, 2022**.
- **Regulator:** The **Securities and Exchange Board of India (SEBI)** regulates the Electronic Gold Receipt framework and SEBI-regulated vaults.
- **Aim:** The initiative aims to **improve transparency in gold pricing, standardize quality, provide secure ownership**, and make India's gold market more efficient.
- **Key Features of EGRs**
 - **Electronic Ownership:** EGRs are **held in a demat account, traded on stock exchanges**, and can be **converted into physical gold** through the prescribed process.
 - **Trading and Settlement:** EGRs **follow a T+1 settlement cycle** and are available for **trading during market hours**.
 - **Purity and Denominations:** EGRs are **available in 99.9% and 99.5 % purity** with denominations of **10 mg, 100 mg, 1 g, 10 g, 100 g, and 1 kg**.
 - **Transparent and Secure:** Each EGR is **backed by physical gold stored in SEBI-regulated vaults**, ensuring standardized ownership, transparent pricing, and assured purity.
 - **Tax:** There is **no GST on EGR trading**, but **3% GST is applicable on physical delivery of gold**.

SAMADHAN Portal 2.0

News: The Delhi Regional Office of the Chief Labour Commissioner (Central), Ministry of Labour & Employment, successfully organized a comprehensive awareness session on the **SAMADHAN Portal 2.0** for trade union representatives.

About SAMADHAN Portal 2.0

- It is an **upgraded digital platform (for online filing, conciliation, arbitration, and adjudication of industrial disputes)** in alignment with the Labour Codes.
- **Nodal Ministry:** It is platform of **the Ministry of Labour and Employment**
- It facilitates **dispute resolution for workers, employers, and trade unions**.
- **Features:** It features **seamless online filing of Industrial Disputes, submission of various claims under the modern Labour Codes, and real-time status tracking mechanisms** designed to empower stakeholders.

About SAMADHAN Portal



Figure 7. Source: Ministry of Labour & Employment

- It is a **digital initiative** by the **Ministry of Labour and Employment**.
- It provides a **single online platform** for workers, trade unions, employers, and other stakeholders **to raise and track employment-related grievances**.
- **Features:**
 - Through the portal, **users can submit industrial disputes, charters of demand, claims under applicable labour laws**, and other employment-related complaints.
 - It promotes **transparency, improves efficiency, reduces delays caused by offline communication**, and helps users easily track the progress of their cases.
 - It also **enables centralized monitoring by the Ministry**, ensuring faster resolution and better implementation of labour laws.

Ex Pitch Black 2026

News: The Indian Air Force started participating in Ex Pitch Black 2026 at the Royal Australian Air Force Base Darwin from 20 July 2026.

About Ex Pitch Black 2026



Figure 8. Source – DD India

enhance operational interoperability, strengthen military cooperation, improve force integration, and exchange operational best practices in realistic multinational air combat scenarios.

- **First Edition:** June 1981
- **2026 Location:** The exercise is conducted at RAAF Bases Darwin and Tindal in the Northern Territory, and RAAF Base Amberley in Queensland, Australia.

- **Ex Pitch Black 2026** is the **Royal Australian Air Force's flagship biennial multinational air combat exercise** with a **45-year history**.
- **Origin of Name:** The name "**Pitch Black**" comes from the exercise's focus on **night flying** over the large unpopulated areas of northern Australia.
- **Host Country:** **Australia** hosts **Ex Pitch Black 2026** through the **Royal Australian Air Force (RAAF)**.
- **Objective:** The exercise aims to

- **Participating Countries:** More than 19 nations, including India, Australia, the USA, the UK, Japan, France, Indonesia, Singapore, South Korea, Canada, and other Indo-Pacific partners, are participating in the exercise.
- **Key Features of Ex Pitch Black 2026:**
 - **Scale of Exercise:** The 2026 edition brings together more than 19 nations, 100+ aircraft, and 4,400+ personnel.
 - **Operational Training:** The exercise focuses on complex aerial manoeuvres, offensive counter-air operations, air defence tracking, tactical coordination, mission planning, and integrated high-intensity operational training.
 - **IAF Participation:** The Indian Air Force (IAF) has deployed Rafale fighter aircraft, supported by C-17 Globemaster III and IL-78 Air-to-Air Refuelling aircraft, along with pilots, engineers, technicians, controllers, and other experts.
 - **India's Previous Participation:** The IAF has participated in the 2018, 2022, and 2024 editions, reaffirming its commitment to strengthening defence cooperation and regional security.

Conocarpus Trees

News: The Karnataka High Court directed the Greater Bengaluru Authority to consider a PIL seeking the removal of Conocarpus trees across Bengaluru.

About Conocarpus Trees



Figure 9. Source – TH

- **Conocarpus tree** is a genus of trees that was introduced to India from Gulf countries for urban landscaping and greening purposes.
- **Species:** There are two species of Conocarpus trees found in India –
 - **Conocarpus erectus (buttonwood)** and **Conocarpus lancifolius (damask)**.
- **Key Characteristics:**
 - **Fast Growth and Low Maintenance:** Conocarpus became popular because it grows quickly, requires little maintenance, and survives well with limited care.
- **Tolerance to Harsh Conditions:** The species is drought- and salinity-tolerant, making it attractive for urban greening and plantation drives.
- **Urban Landscaping:** The trees were widely planted along roads, boundary walls, and public spaces by private and public entities.
- **Strong Root System:** Conocarpus has vigorous roots that naturally search for subsoil water and can extend towards water sources.
- **Environmental concerns:**
 - **Ecological Concerns:** The Government of India has advised all states and union territories to stop planting both species because of ecological and public health concerns.
 - **Impact on Biodiversity:** Experts reported that Conocarpus replaced many native tree species and may release compounds that hinder the growth of nearby vegetation.

- **Health and Infrastructure Issues:** Studies from Pakistan and the Middle East raised concerns about **allergenic pollen**, while its **root system may damage infrastructure** under poor horticultural planning.
- **Status:**
 - **Species Status:** Conocarpus has **no formal invasive alien species status in India**, although experts have suggested treating it as an emerging invader until further studies are completed.
 - **Court and Government Status:** In August 2025, the **Government of India advised all States and Union Territories to stop planting both species**, while the **Karnataka High Court** directed the Greater Bengaluru Authority to consider the PIL regarding their removal.

Bardia National Park

News: A young boy died in a mugger crocodile attack in Bahraich, highlighting the wildlife-rich Terai landscape connected with Bardia National Park.

About Bardia National Park



Figure 10. Source – ResearchGate

- **Bardia National Park** is the **largest** and **most undisturbed national park** in Nepal's Terai, established in 1988.

- **Location:** The park is located in **Bardiya District** of Nepal's Terai.

- **Major River:** The **Karnali River** forms the park's **eastern boundary**, and the **Babai**

River flows through the park.

- **Protected Landscape:** Bardia National Park adjoins **Banke National Park** and together they form the **Bardia-Banke Tiger Conservation Unit**.
- **Wildlife Connectivity:** The park supports **cross-border wildlife movement** between **Nepal and India** through the **Western Terai Complex**.
- **Conservation Importance:** The park promotes wildlife conservation, ecotourism, and local livelihoods while protecting Nepal's natural heritage.
- **Vegetation:** About **70%** of the park is covered with **forests**, while the remaining area includes **grasslands, savannah, and riverine forests**.
- **Flora:** The park has **839 recorded plant species**, including vascular plants, ferns, and one gymnosperm species.
- **Fauna:** The park supports 642 faunal species, including the **royal Bengal tiger, one-horned rhinoceros, Asian elephant, gharial, mugger crocodile, fish, reptiles, amphibians, leopards, sloth bears, and many bird species**.

Salal Hydroelectric Project

News: Authorities opened all gates of the Salal Dam after heavy rainfall sharply increased water inflow into the Chenab River and reservoir.

About Salal Hydroelectric Project



Figure 11. Source – IE

- **Location:** The Salal Hydroelectric Project is located in the Reasi district of Jammu and Kashmir.
- **Timeline:** The project planning started in the 1960s, construction began in 1970, and commercial operation started in 1987.
- **River System:** The project is built on the [Chenab River](#) and harnesses its hydropower potential.
- **Developed and Owned by:** The project is developed and owned by the National Hydroelectric Power Corporation (NHPC).
- **Type:** The project is a 690 MW run-of-the-river hydropower project with Stage-I and Stage-II, each having three units of 115 MW.
- **Size:** The Salal Dam is 130 m high and has an elevation of 1,627 feet above mean sea level.
- **Strategic Importance:** This was the first hydropower project built by

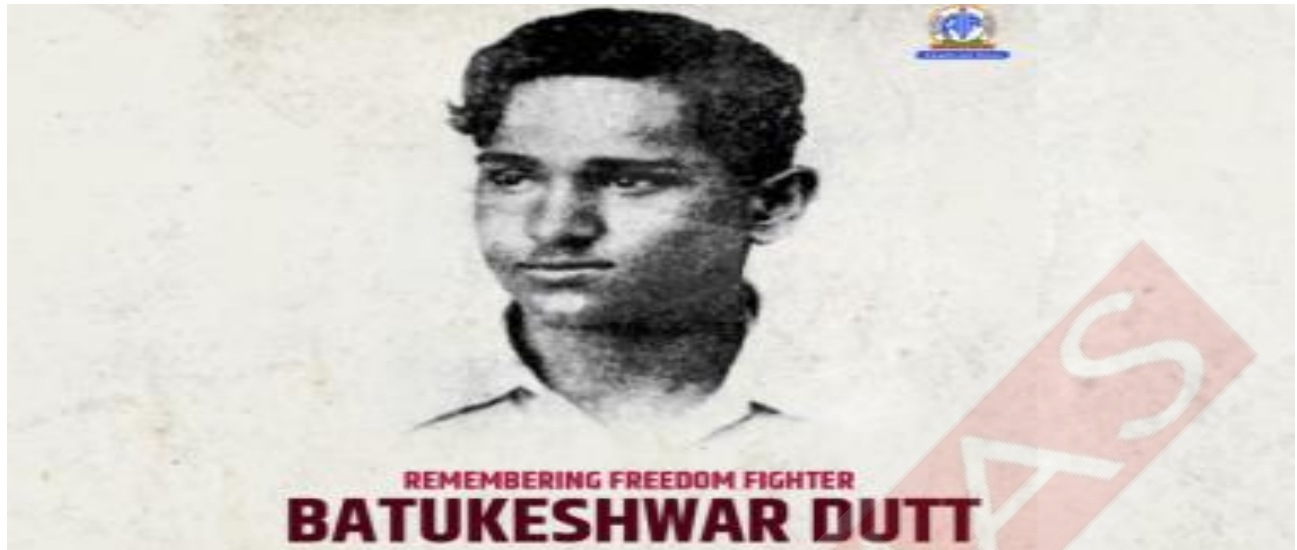
India in Kashmir under the [Indus Water Treaty](#) regime.

- **Beneficiaries:** The Jammu and Kashmir receives 12.5% of the energy generated from the project, while the remaining power is transmitted to the Northern Grid for distribution to Punjab, Haryana, Delhi, Himachal Pradesh, Rajasthan, and Uttar Pradesh.

Batukeshwar Dutt

News: Union Home Minister Amit Shah and Defence Minister Rajnath Singh have paid tribute to revolutionary and freedom fighter Batukeshwar Dutt on his death anniversary.

About Batukeshwar Dutt



Source: News on Air

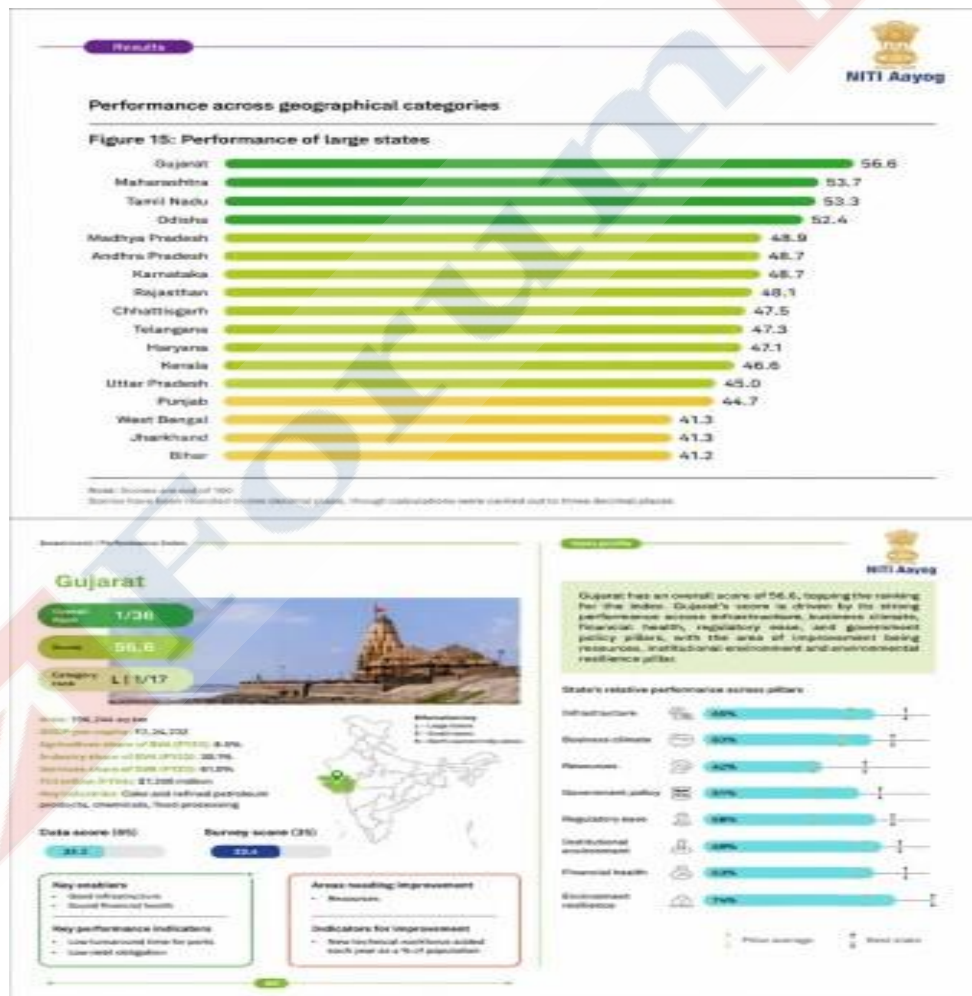
- Batukeshwar Dutt was an **Indian revolutionary in the early 1900s**.
- He was also **known as BK Dutta**.
- **Birth:** He was **born on November 18, 1910**, in the **Bardhaman district of Bengal**.
- **Early life:** Patriotism and love for Indian culture were deeply ingrained in him from childhood, values he inherited from his family.
 - He was affectionately called **Mohan** and **Battu** during his early years.
 - His father, **Bihari Dutt**, was engaged in social service, while his mother, **Kamini Devi**, was a homemaker rooted in traditional values.
- **Influence:** During his high school years, he came into contact with revolutionaries **Surendranath Pandey** and **Vijay Kumar Sinha**, who inspired him to join the revolutionary movement.
 - His decision was influenced **by his family's nationalist values and by witnessing a British soldier mercilessly beat an innocent Indian child on Kanpur's Mall Road**.
- **Activities:** He joined the **Hindustan Republican Association (HRA)** through **Suresh Chandra Bhattacharya**, the editor of *Pratap*.
 - He developed a close association with **Bhagat Singh** and met **Chandrashekhar Azad** in **1924**.
 - After the **Kakori Conspiracy Case**, he moved **first to Bihar and later to Calcutta**.
 - In **1927**, the **Hindustan Republican Association** was reorganised and renamed the **Hindustan Socialist Republican Association (HSRA)**.
 - Within the organisation, he received specialised training in bomb-making and became one of its most skilled experts.
 - Many of the bombs used by revolutionaries during that period were **either manufactured by him or by young revolutionaries trained under his guidance**.
 - He stood alongside **Bhagat Singh** in the **1929 Assembly Bomb Case**.
 - He became a household name after the **Central Legislative Assembly Bomb Case of 1929**, in which **he and Bhagat Singh threw non-lethal bombs inside the Assembly to protest against repressive British laws**.
- **Later life:** While Bhagat Singh was sentenced to death, Batukeshwar Dutt was awarded **life imprisonment**.

- He was imprisoned in the **Cellular Jail (Kala Pani)** in the Andaman Islands and later shifted to **Hazaribagh, Delhi, and Bankipur jails**. During his imprisonment, he endured severe torture that permanently damaged his health.
- In **1938**, he was released on the condition that he would abstain from political activities.
- He later joined **Mahatma Gandhi's non-violent movement**.
- During the **Quit India Movement of 1942**, he was arrested again and was finally released in **1945**.
- In **1958**, he received formal recognition and was nominated to the **Bihar Legislative Council**.
- **Death:** He passed away on **July 20, 1965**.
- **Legacy:** He is remembered for his **fearless role in India's freedom struggle** alongside Bhagat Singh and for the hardships he endured even after Independence.

Investment Friendliness Index

News: Recently, a report on "Investment Friendliness Index" was released by NITI Aayog.

About Investment Friendliness Index



Source: NITI Aayog

- It presents a **structured and data-driven framework** for assessing how effectively States and Union Territories **create, enable, and sustain an environment conducive to investments**.
- **Released by:** This report is released by NITI Aayog.
 - This is NITI Aayog's first -ever Investment Friendliness Index (IFI).
- It evaluates **key policy, institutional, regulatory, and infrastructure-related parameters** that **influence investment decisions** and **provides a comparative assessment of the investment ecosystem** across States and Union Territories.
- **Focus:** It seeks to **foster competitive and cooperative federalism by encouraging States and Union Territories** to adopt best practices and undertake continuous reforms in pursuit of the vision of Viksit Bharat @2047.
- **Indicators and pillars:** It evaluates States **across 84 indicators under eight key pillars** with different weightages that determine investment readiness: **infrastructure (25 percent), business climate (20 percent), resources (15 percent), government policy (10 percent), regulatory ease (12 percent), financial health (7 percent), institutional environment (6 percent), and environmental resilience (5 percent)**.
- **Performance of states:**
 - **Gujarat has secured the top position**, followed by Maharashtra and Tamil Nadu.
 - The Index identifies **Gujarat's policy stability and investor-centric governance as among the State's biggest strengths**.
 - In the **hilly and North-Eastern** category, Uttarakhand ranked first, followed by Assam and Himachal Pradesh.
 - Among UTs and city states, **Goa topped the rankings, followed by Delhi and Chandigarh**.
- **Classification:** The report classifies states into four categories: **Top performers, frontrunners, emerging performers and aspiring states**.
 - **Five states** have been identified as **top performers**, while **15 have been placed in the frontrunners category, including Delhi, Uttar Pradesh and Andhra Pradesh**.
 - Eight states and UTs including Punjab, West Bengal, Bihar, J&K have been categorised as **emerging performers**.
 - **Another eight including Mizoram, Arunachal Pradesh and Manipur** have been placed in the **aspiring states category**.

Mission Golden Spice and Lakadong Turmeric

News: The Union Minister of Communications and Development of North Eastern Region (MDoNER) launched Mission Golden Spice to promote Meghalaya's GI-tagged Lakadong turmeric globally.

About Mission 'Golden Spice'



Source – PIB

- **Mission Golden Spice** is an **Integrated Lakadong Turmeric Value Chain Enhancement Project** for turmeric cultivation and value chain development in Meghalaya.
- **Initiative by:** The **Ministry of Development of North Eastern Region (MDoNER)** launched the mission with the **Government of Meghalaya**.
- **Implementing Agencies:** The mission is anchored by **MDoNER** and the **North Eastern Council (NEC)** in collaboration with the **Government of Meghalaya**.
- **Inter-Ministerial Convergence:** The mission works with the **Ministries of Agriculture & Farmers Welfare, Food Processing Industries, and Commerce**, along with the Agricultural and Processed Food Products Export Development Authority (**APEDA**), **Spices Board**, National Turmeric Board, Indian Council of Agricultural Research (**ICAR**), Ministry of Electronics and Information Technology (**MeitY**), National Bank for Agriculture and Rural Development (**NABARD**), and Small Farmers Agribusiness Consortium (**SFAC**).
- **Financial Outlay:** The government has approved an **outlay of ₹175.45 crore** for the mission.
- **Time Period:** The mission will be **implemented in two phases** of an **Five year roadmap (2025-2030)**
 - **Implementation Phases:**
 - **First phase:** Focus on **Value chain strengthening and expansion** and scale up.
 - **Second phase:** Promotion of **Meghalaya's Unique Selling Proposition(USP)**.
- **Target:** The mission aims to increase **farmers' remuneration from ₹30–40 per kilogram to nearly ₹80 per kilogram by 2030** and expand the cultivation area **from about 2,500 hectares to 7,500 hectares**.

About Lakadong Turmeric

- **Cultivation Area:** Lakadong turmeric is **cultivated in the Lakadong area of the Jaintia Hills in Meghalaya**.
- **Special Quality:** It contains **7–12% curcumin**, which is nearly **four times** the world average.
- **Recognition:** It received the **Geographical Indication (GI) tag** in 2024.
- **Characteristics:** The turmeric is **darker in colour**, is **organically grown without fertilizers**.
- **Uses:** It is **used for its anti-inflammatory, antioxidant, and neuroprotective properties**.

- **Unique Advantage:** Meghalaya's acidic, iron-rich soil and specific environmental conditions contribute to the **unique qualities of Lakadong turmeric**.

RajmargYatra App, Digital Local Pass and 'MargMitra' Help Centre

News: The National Highways Authority of India (NHAI) has introduced the Digital Local Pass facility and the MargMitra Help Centre on the RajmargYatra app.

About RajmargYatra App



Source – Digit

- **RajmargYatra App** is a mobile application that **provides digital services to make National Highway travel more convenient and citizen-centric**.
- **Nodal Ministry:** Ministry of Road Transport and Highways is nodal minister.
- **Implementing Agency:** National Highways Authority of India (NHAI) is implementing agency.
- **Objective:** It aims to make National Highway **travel more seamless** by providing **technology-driven public services** and improving ease of living.
- **Key Pre-existing Features:**
 - **Annual Pass Facility:** The app provides an Annual Pass facility, through which more than 80 lakh Annual Passeshave been sold with real-time activation.
 - **Other Digital Services:** The app also enables **geo-tagged complaint registration with photos and videos, provides real-time weather alerts, notifies users about nearby amenities** such as hospitals and fuel stations, and **offers unified FASTag banking services**.
- **New Features:** The app has **introduced the Digital Local Pass facility and the MargMitra Help Centre**.
 - **Digital Local Pass Feature:**
 - **Eligibility:** Residents living within a 20-kilometre radius of an **eligible toll plaza** can **purchase a Local Pass through the app**.
 - **Benefits:** Eligible users **can purchase a monthly Local Pass digitally** and enjoy unlimited travel through the respective toll plaza for one month.
 - **Digital Verification:** The system uses **consent-based integration with DigiLocker, VAHAN, and GIS-based verification** to establish eligibility while improving transparency, accuracy and user convenience.

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- **Initial Rollout:** The facility has been introduced at the Mundka-Bakkarwala Toll Plaza on Urban Extension Road-II (UER-II), Delhi, and will be expanded to other toll plazas across the country.
- **MargMitra Help Centre:**
 - **Single-Window Assistance:** It is an intelligent digital assistance platform integrated into the RajmargYatra app that enables commuters to access information, seek assistance and register grievances.
 - **Multilingual Support:** Users can type or speak their queries in 22 Indian languages.
 - **Key Services:** It provides instant assistance on FASTag recharge, KYC requirements, refund status, Annual Pass, Local Pass services and other frequently asked questions.
 - **Grievance and Road Safety:** Users can lodge complaints, track their status in real time, file appeals, check FASTag blacklisting status, view pending electronic notices, and report stalled vehicles or encroachments on National Highways.

Rhine River

News: A prolonged heatwave has caused several major European rivers, including the Danube, Rhine, Elbe, and Loire, to dry up, threatening drinking water supplies, inland navigation, trade, and recreational activities.

About Rhine River

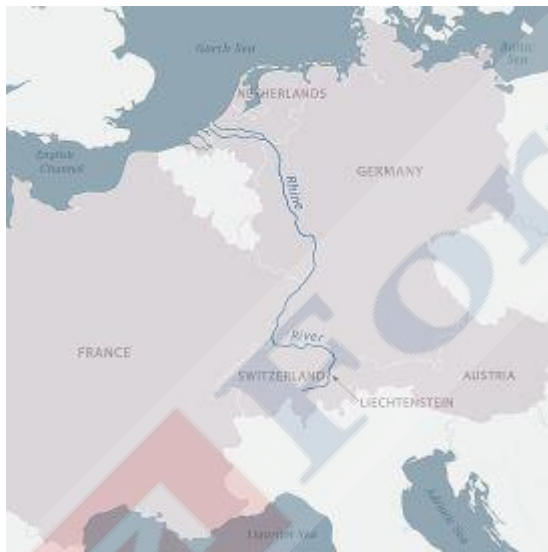


Figure 12. Source: World Atlas

- It is the **12th longest river in Europe.**
- It is **longest river in Western and Central Europe.**
- **Source:** It originates from two principal sources in Switzerland, including the **Anterior Rhine in Tomasee** and **Posterior Rhine in Tamin**, with both sources located in **Graubunden**.
- **Flows through:** It flows through **six countries: Switzerland, Germany, Austria, Liechtenstein, Germany, and the Netherlands.**
 - Additionally, the **Rhine Basin** drains **Belgium and parts of Italy and France.**
- **Length:** It covers a **distance of 1,230 km** from its source in Switzerland to its mouth in the Netherlands.
- **Falls into:** It empties into the **North Sea** at **Rotterdam (Netherlands).**
- **Tributaries:** Major tributaries of the Rhine River include the **Aare, Tamina, Moselle, Erft, Rein da Tuma, Plessur, Rotach, and Wiese rivers.**
- **Major cities along river:** It includes **Basel (Switzerland), Cologne, Bonn, Duisburg, Mainz, Leverkusen, and Neuss (Germany), Strasbourg (France), and Rotterdam and Utrecht (Netherlands).**
- It is one of **Europe's most important rivers**, playing a vital role in **industrial transport and production.** Nearly **20% of the world's chemical industry** is concentrated along its banks.

Key Facts About North Macedonia

News: President Droupadi Murmu addressed the India–North Macedonia Business Forum in Skopje during her official visit on July 21, 2026.

Key Facts About North Macedonia



Figure 13. Source – Britannica

- **Location:** North Macedonia is a landlocked country situated in the south-central Balkans in Southeast Europe.

- **Capital:** Skopje is its capital city.

- **Boundaries:** It is bordered by Kosovo and Serbia in the north, Bulgaria in the east, Greece in the south, and Albania in the west.

- **Name Dispute:** The country changed its name to the Republic of North Macedonia after signing the Prespa Agreement with Greece in June 2018.

- The name change removed Greece's veto and allowed the country to enter the North Atlantic

Treaty Organization (NATO) and pursue accession to the European Union (EU).

- **Climate:** It has a moderate continental climate influenced by both Mediterranean and continental climatic zones.
- **Relief:** North Macedonia is a predominantly mountainous country with rugged terrain, ancient metamorphic rocks, younger sedimentary deposits in the central region, and broad fertile valleys suitable for agriculture.
- **Major Rivers:** The Vardar River is the largest river and drains most of the country's territory.
- **Drainage:** About 90% of the country's area drains into the Aegean Sea through the Vardar River and its tributaries.
 - While the remaining areas drain towards the Adriatic Sea and the Black Sea basins.
- **Highest Peak:** Mount Korab, located on the Albanian border, is the country's highest peak.
- **Major Lakes:** The major lakes are Ohrid, Prespa, and Dojran.
 - Ohrid and Prespa are tectonic lakes, while these lakes are shared with neighbouring countries.
- **Flora:** It is covered with deciduous forests, coniferous forests, Pindus Mountains mixed forests, Balkan mixed forests, Rhodopes mixed forests, and Aegean sclerophyllous and mixed forests.
- **Fauna:** The major fauna includes wild pigs, wolves, bears, lynx, grasshoppers, and small lizards.

Journey of the Tiranga/India's National Flag

News: Seventy-nine years ago on July 22, 1947, the Constituent Assembly adopted the design of India's National Flag.

About Journey of the Tiranga/ India's National Flag



Figure 14. Source – DD News

- The **National Flag** embodies the **sacrifices of the freedom movement and the ideals of the Republic**.
- **Evolution During the Freedom Movement:**
 - **1904:** Sister Nivedita designed one of the earliest Indian flags with yellow and red colours, a Vajra symbol and a white lotus, representing India's cultural and spiritual nationalism.
 - **1906:** During the Swadeshi Movement, Sachindra Prasad Bose and Hemchandra Kanungo hoisted a tricolour at Parsee Bagan Square, Calcutta, featuring eight lotus flowers, "Vande Mataram", the sun and crescent moon.
 - **1907:** Madam Bhikaji Cama unfurled the Saptarishi Flag at the International Socialist Congress in Stuttgart, Germany, the first known hoisting of an Indian national flag on foreign soil.
 - **1917:** During the Home Rule Movement, Annie Besant and Bal Gangadhar Tilak introduced a flag with red and green stripes, the Union Jack, seven stars, and a crescent with a star.
 - **1921:** Pingali Venkayya presented a flag design to Mahatma Gandhi at the AICC meeting in Bezwada (Vijayawada). Gandhi suggested adding a white band and the Charkha, forming the basis of the present Tricolour.
 - **1931:** The Indian National Congress adopted the saffron-white-green tricolour with the Charkha, regarded as the precursor to the present National Flag.
- **Adoption of the National Flag**
 - **June 1947:** The Constituent Assembly appointed an ad hoc committee to recommend the National Flag. The committee retained the 1931 tricolour but replaced the Charkha with the Ashoka Chakra.
 - The Constituent Assembly adopted the present National Flag on July 22, 1947.
 - The Ashoka Chakra was taken from the Dharma Chakra on the Lion Capital of Emperor Ashoka at Sarnath.
 - The Tricolour became India's National Flag on August 15, 1947.
- **Symbolism**
 - The saffron band represents courage, sacrifice and selflessness.
 - White signifies peace, truth and integrity
 - Green stands for prosperity, growth and harmony with nature.
 - At the centre of the white band is the Ashoka Chakra, symbolising Dharma, justice and continuous progress.
 - Its 24 spokes underscore the importance of constant movement, ethical governance and the rule of law.
- **Constitutional and Legal Framework**
 - The Constitution does not prescribe the design or specifications of the National Flag.
 - Article 51A(a) makes it a Fundamental Duty to respect the National Flag.
 - Its display and protection are governed by:
 - [Flag Code of India, 2002](#)

- Emblems and Names (Prevention of Improper Use) Act, 1950
 - [Prevention of Insults to National Honour Act, 1971](#)
- **Dimensions and Specifications**
 - It is **manufactured as per Bureau of Indian Standards (BIS) specifications under the Flag Code.**
 - It maintains a **3:2 length-to-height ratio with three equal horizontal bands.**
 - The **Ashoka Chakra** has 24 equally spaced navy blue spokes.
 - Traditionally made only from hand-spun and handwoven khadi. **2022 amendments allowed machine-made flags** and flags made of polyester, cotton, wool, silk and bunting, besides khadi.
- **Display of the National Flag**
 - The **Flag Code of India, 2002 (effective January 26, 2002)** governs the display and use of the National Flag.
 - **2022 amendments** allowed the Tricolour to be **flown day and night**
 - The Flag may be **flown every day if displayed with dignity.**
 - **It must not:**
 - Touch the ground or water.
 - Be used as drapery, decoration or for commercial purposes.
 - When displayed with other flags, it must occupy the position of honour.
 - Damaged or soiled flags must be disposed of with dignity.
- **Punishable:** Disrespect to the National Flag is punishable under the **Prevention of Insults to National Honour Act, 1971.**

Sal (*Shorea robusta*) and Sal Borer Infestation

News: The Madhya Pradesh Forest Department has sought permission to fell nearly 150,000 sal trees after a severe sal borer infestation in Dindori district.

About Sal (*Shorea robusta*) Tree



Source – DTE

- **Sal (*Shorea robusta*)** is one of the **oldest and strongest tree species** and is an important forest tree of **northern India**.
- **Family:** It belongs to the **Dipterocarpaceae family**.
- **Distribution:** In India, Sal is naturally found in **Uttarakhand, the Terai region of Uttar Pradesh, Jharkhand, Odisha, Madhya Pradesh, Chhattisgarh, and West Bengal**.
 - The tree is also native to **Bangladesh, Nepal, Tibet, and across the Himalayan regions**.
- **Key Aspects:**
 - **Importance:** Sal provides **valuable timber, seed fat used in chocolate manufacturing**, and non-timber forest products that support rural livelihoods.
 - **Special Feature:** It is known as the “**Sentinel of the Forests**” because it can **survive for many years and withstand environmental changes**.
 - **Climate Requirement:** It grows well in a **warm and humid climate, light loamy soil with good drainage, and annual rainfall of about 1,000–3,000 mm**.
 - **Life Span:** The tree can live for nearly 100 years and does not require frequent watering or care.

About Sal Borer Infestation



Source – DTE

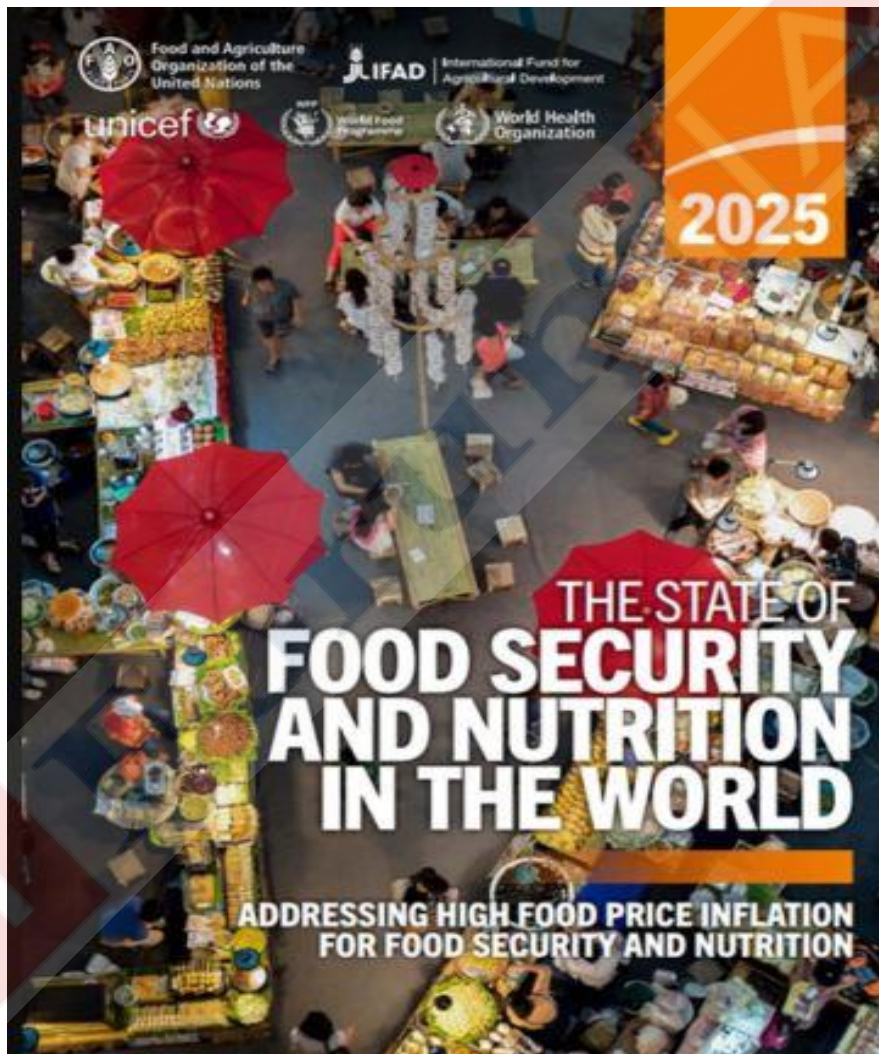
- **Caused by:** The infestation is caused by the **sal borer, a dark brown beetle of the order Coleoptera and family Cerambycidae**.
- **Nature of Damage:** It is the most **destructive insect pest of sal forests** and **damages both standing trees and freshly felled timber**.
- **Pest Outbreak Cyclical:** Major outbreaks occur naturally in a cycle of about 30 years, with the last major outbreak reported in 1997.
- **Symptoms of Infection:** **Sawdust-like material appears** around the trunks of infected sal trees.
 - The borer **first attacks weak and unhealthy trees**, while **adult insects are often seen gathering around household lights**.
- **India Current Scenario:**
 - **Region of Infection:** The current sal borer outbreak has affected **Dindori district and the Amarkantak region of neighbouring Anuppur district in Madhya Pradesh**.

- **Government Action:** The Madhya Pradesh Forest Department has sought **permission from the Central Government to fell 147,380 infested sal trees in Dindori**
- It is using the 'trap tree' method to control the spread of the pest.
- **Community Participation:** The Forest Department has set up **insect collection centres and is paying Rs 2 per insect.**

State of Food Security and Nutrition in the World 2026 report

News: The UN released the State of Food Security and Nutrition in the World 2026 report on July 21, 2026, highlighting India's nutrition progress and challenges.

About State of Food Security and Nutrition in the World 2026 Report



Source – WHO

- **State of Food Security and Nutrition in the World 2026 report is the UN system's flagship assessment of global hunger, food insecurity, and malnutrition.**

- **Produced by:** The report is **jointly produced by** the Food and Agriculture Organization (**FAO**), the International Fund for Agricultural Development (**IFAD**), the United Nations Children's Fund (**UNICEF**), the World Food Programme (**WFP**), and the World Health Organization (**WHO**).
- **Focused:** The 2026 report **focuses on the rising cost of healthy diets, the factors driving these trends, and policies to make nutritious food more affordable.**
- **Key Findings:**
 - **Global Findings:**
 - **Global Hunger:** Hunger **affected 7.8% of the world's population in 2025.**
 - **Food Insecurity:** Around **2.1 billion people experienced moderate or severe food insecurity.**
 - **Progress Towards SDG 2:** Global food security and nutrition improved slightly in 2025, but progress remains **insufficient to achieve the 2030 SDG 2 (Zero Hunger) target.**
 - **Healthy Diet Challenge:** Healthy diets remained **unaffordable for billions of people, especially in Africa**, where two-thirds of the population could not afford one.
 - **India's Findings:**
 - **Hunger Persists:** Despite this progress, about **142.5 million people remained undernourished in 2023–25.**
 - **Healthy Diet Affordability:** Around 520.1 million people (**35.5% of the population**) could not afford a healthy diet in 2025.
 - **Cost of Healthy Diets:** The cost of a healthy diet **increased by nearly 48% since 2017 and reached PPP \$4.11 per person per day in 2025.**
 - **Child Nutrition:** Child stunting declined to 32.9%, but wasting remained high at 18.7%.
 - **Rising Malnutrition:** Overweight among children, adult obesity, and anaemia among women continued to increase.

Key Facts About Panama

News: India and Panama held bilateral talks to deepen maritime cooperation in logistics, shipping, maritime security, skill development and digital transformation.

Key Facts About Panama



Source – Britannica

- **Location:** Panama is a **country in Central America**.
 - It is located on the **Isthmus of Panama**, a narrow bridge of land that connects **North America and South America**.
- **Borders:** It is bordered by **Costa Rica in the west** and **Colombia in the east**.
 - It is bounded by the **Caribbean Sea to the north** and the **Pacific Ocean to the south**.
- **Relief:** A **central mountain chain** divides the country into **Atlantic and Pacific-facing slopes**.
 - The **Panama Canal** passes through a **lowland depression**.
- **Highest peak:** **Barú** is the country's highest peak.
- **Major Rivers:** It has many short rivers, including the **Chagres, Tuira, Chucunaque, Chepo** and **Chiriquí Viejo** rivers.
- **Climate:** It has a **tropical climate** with heavier rainfall on the Caribbean side and a distinct dry season in many Pacific regions.
- **Rainforest:** It has the **largest rainforest in the Western Hemisphere outside the Amazon Basin**, and its tropical rainforests support rich biodiversity.

About Panama Canal

- **Location:** The Panama Canal is an **artificial waterway** located across the **Isthmus of Panama**.
 - It connects the **Atlantic Ocean through the Caribbean Sea with the Pacific Ocean**.
- **Built by:** The Panama Canal was built by the **United States between 1904 and 1914** and officially opened on **15 August 1914**.
- **Controlled by:** **Panama** has **owned and administered the canal since 1999** after the **transfer of control from the United States**.
- **Size:** It is **approximately 80 km long**, making it one of the two most strategic artificial waterways in the world (the other being the **Suez Canal**).
- **Structure:** It has a **series of locks that raise and lower ships by changing the water level**, allowing them to **pass across the continental divide**.

Hornbills

News: In July, four Malabar pied hornbills were spotted near agricultural fields along the Muvvayam river in Kannur district, Kerala, a first for the area.

About Hornbills

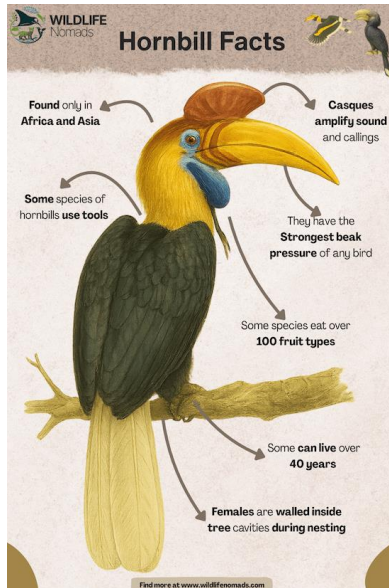


Figure 15. Source: Wildlife Nomads

- Hornbills are a **tropical birds** named for **their unusually large, curved bills**.
- **Scientific name:** They scientific name **Bucerotidae**.
- **Family:** They belongs to **Bucerotidae** family.
- **Habitat:** They inhabit the **canopy of tall evergreen forests**.
- **Distribution:** They are found largely in the **tropics of sub-Saharan Africa and south and south-east Asia**.
- **Characterstics:**
 - **Appearance:** They are easily **recognised by their long, curved bills topped with a casque**.
 - They nest in the **natural hollows of high-canopy trees**, where **females seal themselves inside tree cavities during breeding**.
 - **Diet:** They are one of the biggest **frugivores (fruit-eating birds)** in the **Asian rainforest**.
 - Around 40-70% of their diet consists of **large ficus fruits, figs, drupes and berries, usually red or black in colour**.
- **Ecological significance:** They are often known as '**farmers of the forest**' due to their propensity to **consume fruits and disperse seeds far and wide**.

- **Hornbills found in India:** They are **nine species of hornbill** found in India:

Species	Conservation status as per IUCN Red List of Species
Great hornbill (<i>Buceros bicornis</i>)	Vulnerable
<u>Malabar grey hornbill</u> (<i>Ocyrceros griseus</i>)	Vulnerable
<u>Malabar pied hornbill</u> (<i>Anthracosceros coronatus</i>)	Near Threatened
<u>Indian grey hornbill</u> (<i>Ocyrceros birostris</i>)	Stable population
Note: Most hornbill species in India are listed under Schedule I of the Wildlife (Protection) Act, 1972 , granting them the highest level of protection.	

Kharchi Puja

News: Tripura Chief Minister inaugurated the week-long Kharchi Puja, one of the state's largest and most significant religious and cultural festivals.

About Kharchi Puja

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Source: HT

- It is **week- long, annual Puja** held at **old Agartala in Tripura**.
 - It is also called the '**Festival of 14 Gods**'.
- The word '**Kharchi**' is **derived from two Tripuri words** – '**khar**' or **kharta** meaning '**sin**' and '**chi**' or **si** meaning '**cleaning**'.
- It is observed on the **eighth day of the new moon in July or August every year**.
- **Deities worshipped:** The **Chaturdasa Devata** are the **14 ancestral deities of the Tripuri people**, central to the Kharchi Puja festival.
 - These deities, including **Shiva, Vishnu, Lakshmi, Saraswati, and Kartik**, are worshipped **with great reverence**.
- It is believed that **Tripura Sundari**, the presiding deity of Tripura, menstruates during **Ambubachi** (observed in June).
 - According to tradition, **the Earth becomes impure during this period, and Kharchi Puja is performed to ritually purify the Earth** and cleanse it of people's sins after the Goddess's menstruation ends.
- **Rituals performed during festivals:**
 - An important ritual of the festival is the **construction of the Chaturdasha Mandapa**, which **symbolises the royal palace of the Tripuri kings** and is constructed by **traditional artisans** who craft the structure out of **bamboo** and thatched roofs.
 - On the day of the main puja, the **idols of all the 14 deities from the ancient Ujjayanta Palace** are carried by the royal priest **Chantai** from the temple premises in Agartala to the **holy Saidra river** where they are **dipped in the holy waters** of the river and carried back to the temple.
 - The **idols** are then adorned with **different flowers, traditional attires, ornaments, and vermilion paste**.
 - After this, different varieties of **sweets are distributed** to the devotees as '**prasad**'.
 - The festival is marked by **vibrant folk dances, traditional music, and performances by local artistes**, showcasing Tripura's rich cultural heritage.
- **Cultural Fairs:** A **grand fair** is also **organized alongside the festival**, where cultural programmes and traditional performances are held throughout the days.