

SANSKRITI IAS DAILY CURRENT AFFAIRS

26-10-2026

Saidongar-1 Pumped Storage Project, Maharashtra

DH Deccan Herald

Plan to fell 32,000 trees for Rs 13,500-crore hydropower project in Raigad triggers political storm

Raigad/Mumbai: A plan to fell 32,490 trees for a 3,000-MW pumped storage power project in Maharashtra's picturesque Raigad district has...



Why in News

- Environmental activists and opposition parties raised concerns over tree felling for the **Saidongar-1 Pumped Storage Project** in Raigad district, Maharashtra.

Location and Project Specifications

- **Nearby protected area:** **Bhimashankar Wildlife Sanctuary**, located in Pune district, lies adjacent to the project.
- **Capacity:** The project is planned for **3,000 MW**, making it one of India's largest proposed pumped storage projects.
- **Developer:** **Torrent Energy Storage Solutions Private Limited**, a subsidiary of Torrent Power Limited, Gujarat.
- **Reservoirs:** The project will have an upper hilltop reservoir and a lower reservoir across the **Pej River**.

Technical Features and Energy Security

- **Dam heights:** The upper reservoir structure will have a maximum height of **27 metres**, while the lower structure will have a maximum height of **59 metres**.
- **Turbines:** It will use **10 reversible pump turbines**, each with a capacity of **300 MW**.
- **Annual generation:** Expected electricity production is approximately **6,241 GWh**.
- **Working principle:** Pumped storage stores energy by pumping water uphill and generates electricity when water flows down through turbines.
- **Grid stability:** It supports electricity balancing and integration of variable renewable energy sources.

Ashoke Sen and the Oskar Klein Medal 2026

THE Hindu

Ashoke Sen becomes first Indian physicist to receive Oskar Klein Medal

Professor Ashoke Sen has been awarded the Oskar Klein Medal for 2026, becoming the first Indian physicist to receive the honour,...



Why in News

- Indian theoretical physicist **Professor Ashoke Sen** received the **2026 Oskar Klein Medal**, becoming the first Indian physicist to receive this honour.

Award and Recognition

- **Oskar Klein Medal:** Established in **1988**, it recognises outstanding contributions to theoretical physics and honours Swedish physicist Oskar Klein.
- **Awarding institutions:** **Stockholm University** and the **Nobel Committee for Physics of the Royal Swedish Academy of Sciences**.
- **2026 recognition:** Sen was honoured for contributions to string theory, black-hole entropy and string field theory.
- **Memorial lecture:** He delivered *Gravity from Strings and Strings from Gravity* at Stockholm University's AlbaNova Centre on **22 October 2026**.

Scientific Concepts and Contributions

- **String theory:** It proposes that fundamental constituents of matter are tiny, one-dimensional objects called **strings**, whose different vibrations correspond to different particles.
- **Quantum gravity:** String theory seeks to reconcile **general relativity** with **quantum mechanics**, particularly in extreme environments such as black holes.
- **S-duality:** Sen's research explores relationships between different descriptions of physical systems.
- **Black-hole entropy:** His work has advanced understanding of the microscopic origin of black-hole entropy.
- **String field theory:** His contributions have strengthened the theoretical framework for studying string dynamics and interactions.

Other Honours

- **Breakthrough Prize in Fundamental Physics:** 2012; **Dirac Medal:** 2014.
- **Indian awards:** **Padma Shri (2001)**, **Padma Bhushan (2013)** and **Shanti Swarup Bhatnagar Prize (1994)**.
- **Other distinctions:** **Infosys Prize in Mathematical Sciences (2009)**, **ICTP Prize (1989)** and election as a **Fellow of the Royal Society in 1998**.

***Osbeckia assamensis*: New Flowering Plant in Assam**

Nagaland Post

New flower species discovered in Assam's Manas park

A new flowering plant species has been identified in Assam's Manas National Park, adding to the region's rich biodiversity and highlighting...



Why in News

- Researchers identified a new flowering plant species, *Osbeckia assamensis*, in the grasslands of **Manas National Park, Assam**.

Taxonomy and Distribution

- **Family:** **Melastomataceae**, a family of flowering plants.
- **Habitat:** Grasslands of Manas National Park in the Himalayan foothills of Assam.
- **Growth form:** A perennial shrub reaching approximately **2–2.5 metres** in height.
- **Conservation status:** Classified as **Data Deficient (DD)** under IUCN criteria.

Ecological Significance

- **Biodiversity:** The discovery expands the documented plant diversity of Manas National Park.
- **Conservation:** The **Data Deficient** category indicates insufficient information to reliably assess extinction risk; it does not mean the species is necessarily threatened.

Distinguishing Features

- **Flowers:** Pink flowers occur in inflorescences bearing approximately **30–35 flowers**, compared with **5–12** in *Osbeckia nayarii*.
- **Leaves and stem:** It has large, opposite leaves, a largely unbranched stem and distinctive stem hairs.
- **Seeds:** Longer seeds help distinguish it from closely related species.
- **Reproductive season:** Flowering and fruiting occur from **September to February**.

International Centre for Integrated Mountain Development (ICIMOD)

 The Times of India

Glaciers, water, disasters: Almora's GB Pant Institute to coordinate ICIMOD activities in India

Bageshwar: Union ministry of environment, forest & climate change (MoEFCC) has tasked Almora's GB Pant National Institute of Himalayan...



Why in News

- The **Ministry of Environment, Forest and Climate Change (MoEFCC)** assigned the **G.B. Pant National Institute of Himalayan Environment (GBPNIHE), Almora**, responsibility for coordinating ICIMOD activities in India.

Institutional Profile of ICIMOD

- **Establishment:** Formally established and inaugurated on **5 December 1983**.
- **Headquarters:** **Kathmandu, Nepal**.
- **Nature:** An intergovernmental knowledge and learning centre working for the people and ecosystems of the **Hindu Kush Himalaya (HKH)**.
- **Eight member countries:** **Afghanistan, Bangladesh, Bhutan, China, India, Myanmar, Nepal and Pakistan**.

Hindu Kush Himalaya: Geographical Importance

- **Extent:** Approximately **3,500 km** across eight countries.
- **Third Pole:** The region is called the **Third Pole** because of its extensive snow and ice reserves outside the Arctic and Antarctic.
- **River systems:** It is the source region of the **Amu Darya, Indus, Ganga, Brahmaputra, Irrawaddy, Salween, Mekong, Yangtze, Yellow River and Tarim**.
- **Water security:** These river basins support approximately **1.9 billion people**.
- **Biodiversity:** The region contains **four global biodiversity hotspots**.

Climate Governance and Regional Cooperation

- **Core mandate:** ICIMOD promotes knowledge-sharing, regional policy coordination and climate-resilient mountain development.
- **Climate threats:** Glacier retreat, warming and changing precipitation threaten ecosystems, water security and mountain livelihoods.
- **Transboundary cooperation:** It facilitates regional partnerships to address shared mountain challenges and upstream–downstream interdependencies.

Narcotics Control Bureau and Operation Trident

 DD India

NCB launches Operation Trident across three northeastern states; 18 arrested

The Narcotics Control Bureau (NCB), in coordination with the Mizoram Police and the Enforcement Directorate (ED), has launched a major...



Why in News

- The **Narcotics Control Bureau (NCB)** launched **Operation Trident**, deploying 38 teams simultaneously at 38 locations across Assam, Mizoram and Manipur.

Institutional and Legal Framework

- **Administrative control:** The NCB functions under the **Ministry of Home Affairs**.
- **Establishment:** Constituted on **14 November 1985** under the **Narcotic Drugs and Psychotropic Substances Act, 1985 (NDPS Act)**.
- **Headquarters:** **New Delhi**.
- **Mandate:** It is India's nodal drug law enforcement and intelligence agency.

Core Functions

- **Coordination:** It coordinates Central and State drug enforcement agencies and assists States in strengthening enforcement.
- **Intelligence:** It collects and analyses intelligence on drug trafficking, seizures and trafficking methods.
- **Statistics:** It prepares **National Drug Enforcement Statistics** and analyses seizure trends.
- **International cooperation:** It liaises with **INTERPOL**, the **International Narcotics Control Board (INCB)** and other relevant agencies.
- **Field enforcement:** Its zonal offices work with State Police, Customs and other enforcement agencies.

Operation and Internal Security

- **Coverage:** Operation Trident involved simultaneous action at **38 locations across three northeastern States**.
- **Objectives:** Coordinated operations help disrupt trafficking networks, identify supply chains and strengthen intelligence-led enforcement.
- **Regional importance:** The Northeast's international borders make inter-agency and cross-border cooperation important for narcotics control.

Ranthambore Tiger Reserve, Rajasthan

Hindustan Times

Tigress T-2403 spotted with three cubs in Ranthambore Tiger Reserve | India News

Tourists on a morning safari in zone 8 of the reserve saw the four-and-a-half-year-old tigress walking with what appeared to be three small...



Why in News

- Tigress **T-2403** was spotted with three cubs in **Ranthambore Tiger Reserve**, Sawai Madhopur district, Rajasthan.

Geographical Location and Landscape

- **Location:** Southeastern Rajasthan, primarily in **Sawai Madhopur district**.
- **Area:** Approximately **1,411 sq. km**.
- **Name origin:** Named after **Ranthambore Fort**, a UNESCO World Heritage Site component.
- **Physiographic setting:** Located near the junction of the **Aravalli and Vindhyan ranges**, associated with the Great Boundary Fault.
- **Rivers:** The **Banas River** lies to the north and the **Chambal River** to the south.

Vegetation and Biodiversity

- **Forest type:** **Dry deciduous forests** and open grassy meadows.
- **Dominant tree:** **Dhok (*Anogeissus pendula*)**.
- **Other flora:** **Acacia, Capparis, Ziziphus and Prosopis**.
- **Mammals:** Tigers, leopards, caracals, jungle cats, sambar, chital, chinkara and wild boar.
- **Birds:** Peacocks, partridges, green pigeons, parakeets, sparrows, prinias and warblers.

Conservation Significance

- **Tiger conservation:** The reserve is an important landscape for monitoring and conserving wild tigers in northern India.
- **Habitat protection:** Its lakes, grasslands and dry deciduous forests support diverse wildlife.
- **Ecological connectivity:** Maintaining links with surrounding forest landscapes supports wildlife movement and long-term conservation.
- **Population monitoring:** Sightings of tigresses with cubs provide useful information on reproduction and tiger population management.

Other Important News of the day

Places
News

in

Democratic Republic of the Congo: Bundibugyo Ebola Vaccine Trial

... BBC

[Ebola outbreak: DR Congo nurse killed in attack as Uganda tightens border](#)

Local youths reportedly accused the health workers of contaminating water sources and spreading Ebola.



Why in News

- The **World Health Organization (WHO)** reported the start of a clinical trial of a vaccine against **Bundibugyo Ebola virus disease** in the **Democratic Republic of the Congo (DRC)** amid the 2026 outbreak.

Geography and Physical Features

- **Location:** Central Africa, with the **Equator** passing through the country.
- **Capital:** **Kinshasa**.
- **Maritime access:** It has a short coastline on the **Atlantic Ocean**.
- **Major river:** The **Congo River** drains a large part of the country.
- **Climate:** Much of the country experiences an **equatorial climate**, with regional variation.
- **Lakes:** **Tanganyika, Albert, Edward and Kivu** are important lakes.
- **Volcano:** **Mount Nyiragongo**, an active volcano, is located in the Virunga Mountains.

Borders and Natural Resources

- **Nine neighbouring countries:** Angola, Republic of the Congo, Central African Republic, South Sudan, Uganda, Rwanda, Burundi, Tanzania and Zambia.
- **Mineral wealth:** The DRC has substantial resources of **cobalt, copper and industrial diamonds**.



	➤ Regional significance: Its natural resources and cross-border connections are important to Central African economic and security cooperation. Public Health and Vaccine Development ➤ Bundibugyo virus: It causes Bundibugyo Ebola virus disease, a distinct form of Ebola virus disease. ➤ Clinical trial: Vaccine trials assess the safety and effectiveness of vaccine candidates under a defined research protocol. ➤ Outbreak response: Vaccine research complements surveillance, case management and infection prevention and control. ➤ International cooperation: WHO and national health authorities coordinate outbreak response and clinical research.
Environment	Rugda Mushroom: Jharkhand's Wild Monsoon Fungus  Down To Earth Forest beneath a forest: What Jharkhand's prized rugda mushroom reveals about life underground The wild fungus offers a glimpse of the hidden ecological relationships that conservation efforts must recognise, value and protect. A local...  Why in News ➤ Rugda mushroom, a non-timber forest produce (NTFP), provides seasonal income to tribal households in Jharkhand. Ecological Characteristics and Distribution ➤ Scientific names: <i>Astraeus hygrometricus</i> and <i>Astraeus asiaticus</i> are associated with Rugda mushroom. ➤ Distribution: It is a wild, edible, subterranean fungus found across the Chhotanagpur Plateau, particularly in Jharkhand, Odisha, Chhattisgarh and West Bengal. ➤ Seasonality: It emerges after the first monsoon showers and is collected for a few weeks annually. Growth Requirements and Ecological Linkages ➤ Ectomycorrhizal relationship: Rugda forms a natural association with Sal tree roots, exchanging nutrients through an underground fungal network. ➤ Ideal conditions: Growth is associated with rainfall of around 350 cm, ample sunlight and temperatures near 30°C. ➤ Soil: Decomposed Sal leaves form nutrient-rich humus, which retains moisture and supports fungal growth.

	Livelihood and Conservation Significance ➤ Tribal economy: Rugda supports seasonal forest-based livelihoods. ➤ Ecological dependence: Its growth highlights the importance of conserving Sal forests and their soil ecosystems.
Defence	INS Vikrant and Rafale Marine Trials  The Times of India <u>Rafale Marine trials underway in Goa for INS Vikrant operations</u> Indian Navy is conducting trials of the Rafale Marine fighter aircraft in Goa to validate the modifications required for operating the...  Why in News ➤ The Indian Navy commenced Rafale Marine trials at the Shore Based Test Facility in Goa to assess modifications required for operations from INS Vikrant. Design and Indigenous Construction ➤ INS Vikrant: India's first indigenously designed and constructed aircraft carrier, commissioned in 2022. ➤ Design and construction: Designed by the Navy's Warship Design Bureau and built by Cochin Shipyard Limited (CSL), Kochi. ➤ Historical connection: Named after the earlier INS Vikrant (R11), acquired from the United Kingdom and decommissioned in 1997. ➤ Aircraft carriers: India operates INS Vikrant and INS Vikramaditya, the latter being a modified Kiev-class carrier acquired from Russia. Technical Specifications ➤ Dimensions: Approximately 262.5 metres long, 61.6 metres wide, with a displacement of around 45,000 tonnes. ➤ Indigenous content: Approximately 76%, including specialised steel supplied by the Steel Authority of India Limited (SAIL). ➤ Propulsion: Four gas turbines generating approximately 88 MW. ➤ Speed and endurance: Maximum designed speed of 28 knots and independent operation for up to 45 days. ➤ Range: Approximately 8,600 miles (13,890 km), as reported in the supplied material.

	Aviation Systems and Strategic Significance ➤ STOBAR: The Short Take-Off But Arrested Recovery system uses a ski-jump for take-off and arrestor wires for landing. ➤ Air wing: It can operate MiG-29K fighter aircraft, Kamov-31 and MH-60R helicopters, alongside indigenous naval aircraft. ➤ Rafale Marine trials: These assess the aircraft's suitability for carrier-based operations. ➤ Strategic significance: Indigenous carrier construction strengthens maritime power projection, operational autonomy and domestic defence manufacturing.
Science and Technology	Melioidosis: Public Health Concern  NDTV  <u>Melioidosis Mimics Tuberculosis, Pneumonia, Sepsis: Why This Deadly Bacterial Infection Goes Undetected In India</u> Melioidosis, caused by <i>Burkholderia pseudomallei</i>, poses a significant health threat in India. Frequently misdiagnosed as tuberculosis or... Why in News ➤ A study in <i>The Lancet Global Health</i> across 15 Indian tertiary-care centres (2023–2025) identified 262 cases among 2,953 high-risk patients, with 50 deaths. Causative Agent and Transmission ➤ Causative agent: <i>Burkholderia pseudomallei</i>, an environmental Gram-negative bacterium found in soil and water in tropical and subtropical regions. ➤ Distribution: It is endemic in Southeast Asia, northern Australia, the Indian subcontinent, southern China, Hong Kong and Taiwan. ➤ Seasonality: Approximately 75–85% of cases may occur during the rainy season. ➤ Transmission: Infection occurs through contaminated soil or water entering wounds, inhalation of contaminated dust or droplets, and occasionally ingestion of contaminated water; human-to-human transmission is exceptionally rare.

Symptoms and Treatment

- **Symptoms:** Fever, headache, breathing difficulties and abdominal or chest pain.
- **Complications:** Pneumonia, bloodstream infections, internal abscesses, skin and soft-tissue infections, septic arthritis and bone infections.
- **Risk factors:** Diabetes, chronic kidney disease, chronic lung disease and alcohol use disorder increase the risk of severe illness.
- **Treatment:** Intensive intravenous antibiotics, followed by prolonged oral eradication therapy, helps prevent relapse.
- **Public health significance:** Environmental exposure and monsoon seasonality make early diagnosis important in endemic regions.

Uttar Pradesh in News

Uttar Pradesh Tops Mission Karmayogi Implementation

TOI The Times of India

Uttar Pradesh tops Mission Karmayogi implementation; Rajasthan, J&K follow

Uttar Pradesh ranks first in Mission Karmayogi implementation, with 19.23 lakh iGOT users; Rajasthan second, J&K third; Unnati Index...



Why in News

- **Uttar Pradesh** ranked **first nationally** in implementing **Mission Karmayogi** and building the capacity of government employees, followed by Rajasthan and Jammu and Kashmir.

Ranking and Institutional Framework

- **Award ceremony:** Recognition was presented at a Northern Regional Workshop organised by **Dr Ram Manohar Lohia Uttar Pradesh Administration and Management Academy (RUPAM)** with the **Capacity Building Commission (CBC)**.
- **Mission Karmayogi:** It promotes competency-based training and continuous professional development among civil servants.

Digital Training and Departmental Performance

- **iGOT Karmayogi:** Uttar Pradesh has **19.23 lakh registered users**, with **99% reported as active**.
- **Unnati initiative:** More than **350 training institutions** are registered to expand departmental training.
- **Category A:** The **Home Department** ranked first after completing over **one crore training courses**, followed by the Basic and Secondary Education Department.
- **Category B:** The **Higher Education Department** ranked first, followed by the Infrastructure and Industrial Development Department.

Capacity-Building Initiatives

- **Unnati Capability Index:** Launched by the Capacity Building Commission to strengthen institutional capacity assessment.
- **National Curriculum Design Framework:** Introduced to improve curriculum design and training quality.
- **Institutional cooperation:** **RUPAM** signed MoUs with State and Central training institutions to strengthen capacity, improve curricula and align training with role-based requirements.