

SANSKRITI IAS DAILY CURRENT AFFAIRS

11-09-2026

Bakhira Lake

 DD India

Bakhira Lake sediments offer new insights for monsoon prediction and water management in Central Ganga Plain

Sediments preserved beneath Bakhira Lake in Uttar Pradesh's Sant Kabir Nagar district have provided a 25,000-year record of changes in the...



Why in News

- A study of **magnetic minerals preserved in Bakhira Lake sediments over 25,000 years** helped reconstruct past changes in climate, rainfall, weathering and sediment transport in northern India.

Geographical Setting

- Bakhira Lake lies within the **Ghaghara–Rapti alluvial system** of northern India.
- It is one of the **largest wetlands in Uttar Pradesh** and was designated a **Ramsar Site in 2022**.

Geomorphological Significance

- It is a perennial **oxbow/floodplain wetland** formed by migration and subsequent cut-off of the **Rapti River**.
- Its floodplain-lacustrine setting promotes preservation of sediments originating from the lake and surrounding catchment.

Biodiversity Value

- Bakhira Lake serves as an important **wintering and breeding ground for migratory and resident waterfowl**.

Oxbow Lake Basics

- An **oxbow lake** forms when a meandering river cuts off a loop, leaving a crescent-shaped water body.
- Such lakes are common on **floodplains**, where rivers frequently change course.
- They are generally shallow and may gradually dry because of **silt deposition**.
- Oxbow lakes can be nutrient-rich and support nearby **agriculture and fishing**.

Mocha Port

Why in News

- **Iran-aligned Houthis** reportedly took control

 France 24

Yemen's Iran-backed Houthi rebels seize strategic Red Sea port city of Mocha

Yemen's Houthis seized the strategic Red Sea port city of Mocha on Thursday as their offensive against Saudi-backed government forces...



of the Yemeni port city of **Mocha**, enhancing their strategic position along the Red Sea coast.

Geographical and Strategic Location

- **Mokha/Mocha** is a historic town in **southwestern Yemen on the Red Sea**.
- It lies near the **Bab el-Mandeb Strait**, about **75 km north of Perim (Mayun) Island**, near the strait's narrowest point.
- **Dhubab**, around 45 km south of Mocha, lies opposite Perim Island near the entrance to the strait.

Historical Importance

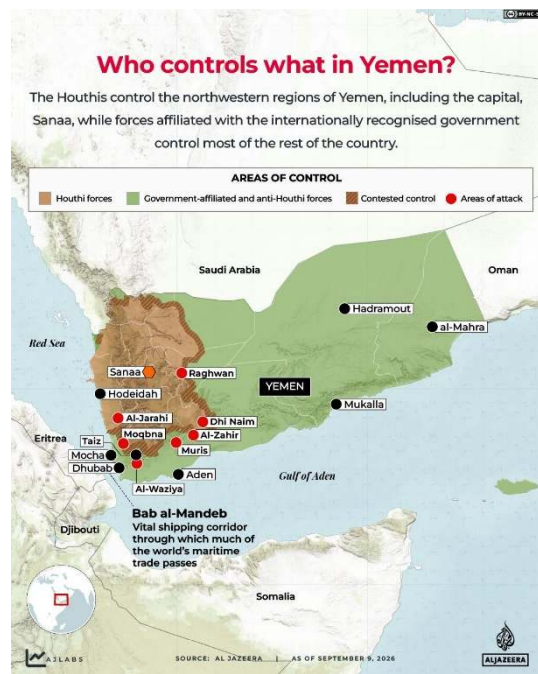
- Mocha was historically **Arabia's chief coffee-exporting centre** and gave its name to the term "mocha."
- It became an important trade centre and was visited by **Indian traders**, who exchanged finished metal products for Yemeni coffee and myrrh.
- Trading establishments of the **British East India Company and Dutch East India Company**, among others, operated there.

Political Control and Decline

- Mocha remained under long-term **Ottoman suzerainty**, with periods of control by the Zaydī imams.
- Its decline was influenced by conflicts involving European powers, the Ottoman Empire and Zaydī imams, along with the emergence of coffee production in **Java and South America**.

Modern Significance

- The modern port was established in **1955** and later served as a minor **logistics and military hub** between Aden and Hodeidah.



Nandankanan Zoological Park

Why in News

- **Nandankanan Zoological Park** introduced **musical therapy** for five abandoned baby orangutans to help them cope with stress.

THE NEW INDIAN EXPRESS

[Music therapy to calm rescued orangutans at Nandankanan zoo](#)

The zoo officials have also provided soft toys to the baby orangutans as part of stress-free management measures.



Location and Setting

- Nandankanan, meaning “**Garden of Heaven,**” is located at **Barang near Bhubaneswar, Odisha**, on the banks of **Kanjia Lake**.
- Unlike conventional zoos, it is situated within the **Chandaka Forest**, which is moist deciduous and semi-evergreen in character.
- The complex also contains a **botanical garden**, with part of the area declared a sanctuary.

International and Conservation Significance

- It was the **first zoo in India to become a member of the World Association of Zoos & Aquariums (WAZA)**.
- It has successfully bred several endangered species, including **Asiatic lion, lion-tailed macaque, Nilgiri langur, Indian pangolin, gharial and brow-antlered deer**.

Unique Records

- Nandankanan is described as the **first zoo in the world to breed melanistic and white tigers**.
- It is the **sole conservation breeding centre for Indian pangolins globally**, according to the source.
- It was the first Indian zoo to introduce an **open-top leopard enclosure**, record captive births of **ratels**, and initiate captive breeding of **gharial**.

UNESCO International Literacy Prizes



UNESCO International Literacy Prizes 2026 reward six impactful initiatives

Six outstanding literacy programmes from Colombia, Lebanon, Mexico, Kingdom of the Netherlands, Nigeria and Thailand have been awarded the...



Why in News

- **UNESCO** presented the **2026 International Literacy Prizes** during the International Literacy Day global function held in **Chiapas, Mexico**.

Institutional Framework

- The **UNESCO International Literacy Prizes** have been awarded since **1967** to promote literacy as a foundation for lifelong learning, equity and sustainable development.
- Individuals, **NGOs and government bodies** involved in literacy promotion are eligible when their programmes demonstrate measurable impact and align with the annual theme.

2026 Theme

- The theme of **International Literacy Day 2026** was “**Literacy for people, the planet, and prosperity.**”

Major Prizes

- The **UNESCO King Sejong Literacy Prize** has three annual awards and has been supported by the **Government of the Republic of Korea since 1989**.
- It particularly recognises **mother-tongue and multilingual literacy** initiatives, with each laureate receiving a medal, diploma and **US\$30,000**.
- The **UNESCO Confucius Prize for Literacy** has three annual awards and has been supported by the **Government of China since 2005**.
- It recognises programmes promoting **functional literacy in rural areas and among out-of-school youth**, particularly through technology, with each laureate receiving **US\$30,000** along with a medal and diploma.

Levees

TOI The Times of India

The US built nearly 2,000 km of Mississippi River levees to control floods; the barriers cut sediment off

US News: Nearly 2000 kilometres of levees built along the Mississippi River over the past century helped protect cities and farmland from...

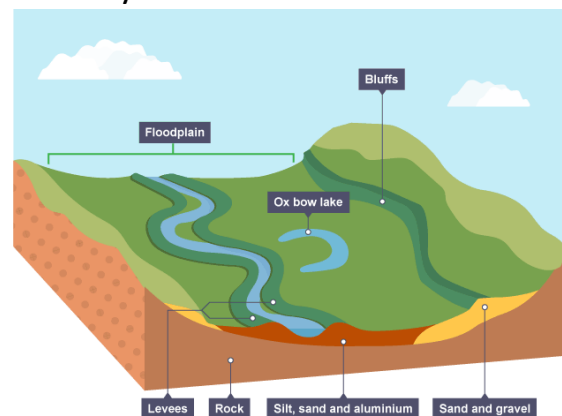


Why in News

- Nearly **2,000 km of levees along the Mississippi River** have helped protect cities and farmland from major floods over the past century.

Concept and Function

- A **levee** is a natural or artificial structure constructed along a river or stream channel to prevent flooding of adjacent land.
- Levees can also divert river flow, protect cities during storms and facilitate reclamation of land.
- Failure or breaching of a levee can result in **disastrous flooding and extensive damage**.



Formation and Construction

- **Natural levees** generally form when flowing water deposits sediments along riverbanks.
- Artificial levees may be constructed using **rocks, sand, soil, metal, wood, plastic or concrete**, depending on local requirements.
- Their height and width are generally determined by expected **rainfall and storm events**.

Global Examples

- The **Mississippi River levee system** is one of the largest modern levee systems.
- **The Netherlands** uses dams, levees and dikes extensively for tidal control and land reclamation.

Coastal Applications

- **Sea levees** can prevent high tides and seawater from flowing inland.
- A coastal levee system in **Nova Scotia and New Brunswick, Canada**, along the Bay of Fundy, helps prevent high tides from inundating inland areas.

Digital Bharat Nidhi

PIB

Agreement Signed between DBN (Digital Bharat Nidhi) - Department of Telecommunications; Government of Jharkhand; JDICL; BSNL & JCNL for Implementation of...

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Why in News

- **Digital Bharat Nidhi (DBN)** under the **Department of Telecommunications (DoT)** signed an agreement for implementing the **Amended BharatNet Programme (ABP)** under the state-led model.

Institutional Transition

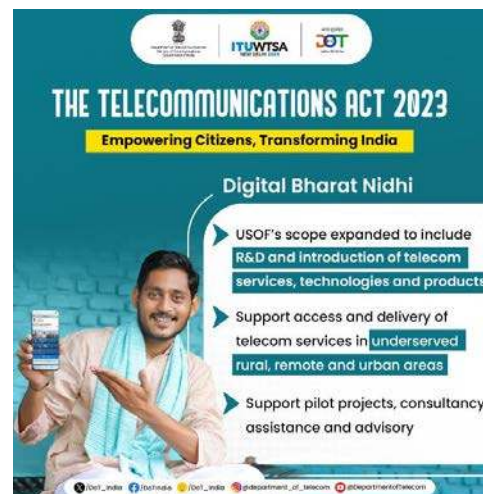
- Digital Bharat Nidhi was formerly known as the **Universal Service Obligation Fund (USOF)**.
- It operates under the **Telecommunications Act, 2023** and functions as an attached office of the **Department of Telecommunications, Ministry of Communications**.

Mandate and Objectives

- DBN promotes universal access to telecommunications in **underserved rural, remote and urban areas**.
- It supports **research and development**, pilot projects, consultancy and advisory assistance relating to telecommunications.
- It also supports the introduction of new **telecommunication services, technologies and products**.

Funding Mechanism

- Contributions from telecom companies are first credited to the **Consolidated Fund of India (CFI)**.



- The balance credited to DBN **does not lapse at the end of the financial year**.
- DBN funds are used for expanding telecommunications access and supporting **telecom R&D, technologies and products**.

Administration

- The **Administrator**, appointed by the Central Government, manages DBN.
- The Administrator selects **DBN implementers** through bidding or invitations for applications from eligible persons.

Other Important News of the day

Environment

Red-Naped Ibis

Why in News

- A new study of **Red-Naped Ibises in Udaipur** found diverse bacteria in their faeces, including **multidrug-resistant strains**.

Ecological Profile

- The **Red-Naped Ibis** is a common, resident and **non-migratory wading bird**, also called the **Indian Black Ibis**.
- It has a bare dark head with a **crimson-red warty skin patch on the crown and nape**.
- It is an **opportunistic omnivore** feeding on insects, amphibians, reptiles, small fish, carcasses and occasionally plant material.



Habitat and Distribution

- It inhabits **lakes, marshes, riverbeds and irrigated farmlands** and may also forage in dry fields away from water bodies.
- It is widespread across the **plains of the Indian Subcontinent**, including Haryana, Punjab, the Gangetic Plain and parts of southern India.
- It is **diurnal** and is commonly observed foraging in small groups.

Conservation Status

- The species has declined substantially because of **hunting and habitat loss**.
- Its **IUCN Red List status is Least Concern** and it is listed under **Schedule II of the Wild Life Protection Act, 1972**.

Awards News	Dr. APJ Abdul Kalam Jan Seva Award 2026  PIB <u>NCSC Chairman Shri Kishor Makwana to Receive "Dr. APJ Abdul Kalam Jan Seva Puraskar 2026"</u> NCSC Chairman Shri Kishor Makwana to Receive "Dr. APJ Abdul Kalam Jan Seva Puraskar 2026". Award Recognises the Commission's Dedicated...  Why in News ➤ Kishor Makwana, Chairman of the NCSC, received the Dr. APJ Abdul Kalam Jan Seva Award 2026 for contributions to social justice and Scheduled Castes' rights. Award Details ➤ The award was presented at the 16th Sansad Ratna Awards 2026 ceremony in New Delhi. ➤ The Prime Point Foundation and Sansad Ratna Awards Committee nominated the NCSC for the honour. Constitutional Linkage ➤ The NCSC is a constitutional body under Article 338 of the Constitution. ➤ The Commission safeguards the constitutional rights and interests of Scheduled Castes.
Defence	Exercise Yudh Abhyas 2026  The Times of India <u>US and Indian armies kick off 'Yudh Abhyas 2026', counter-drone systems being used for first time; Sergio</u> News News: NEW DELHI: The United States Army and Indian Army have commenced Exercise Yudh Abhyas 2026, marking the 22nd iteration of the...  Why in News ➤ The Indian Army and U.S. Army commenced Exercise Yudh Abhyas 2026, marking its 22nd edition.

Operational Geography

- The first phase is being conducted at **Mahajan Field Firing Range, Rajasthan**, near the Pakistan border.
- Forces subsequently move to **Auli, Uttarakhand**, a high-altitude area close to the **Line of Actual Control (LAC) with China**.

Military Focus

- The exercise aims to strengthen **interoperability, joint operational capabilities and military cooperation** between India and the United States.
- The 2026 edition focuses on **high-altitude warfare, long-range precision fires and counter-drone capabilities**.
- U.S. participation includes Arctic-trained soldiers from the **11th Airborne Division**, based at Fort Wainwright, Alaska.
- The **3rd Multi-Domain Task Force** brings long-range precision fires and integrated command-and-control capabilities to the exercise.

Emerging Technology Dimension

- The exercise includes a **Command Post Exercise, Field Training Exercise and combined live-fire demonstration** involving long-range precision fires and rocket systems.
- Under the **Operation Pathways** framework, the 2026 edition introduces advanced counter-drone capabilities through the **Mobile Low, Slow, Small Unmanned Aircraft Integrated Defeat System (MLIDS)**.

Other India–U.S. Exercises

- **Vajra Prahar** involves Indian and U.S. Army Special Forces, while **Cope India** involves the two air forces.
- **Malabar** involves the Indian, U.S., Japanese and Australian navies, whereas **Tiger Triumph** is a tri-service India–U.S. exercise with emphasis including amphibious and **HADR operations**.

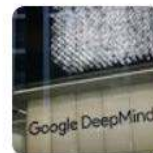
Science and Technology

AlphaGenome Atlas

F Forbes

Google DeepMind Releases AlphaGenome Atlas Mapping 9 Billion Human DNA

Google DeepMind launched the AlphaGenome Atlas, a massive one-petabyte dataset predicting the impact of all nine billion possible...



Why in News

- **Google DeepMind** has unveiled the **AlphaGenome Atlas**, an AI-powered resource for predicting the molecular effects of genetic alterations.

Core Architecture

- The Atlas maps the predicted impact of approximately **9 billion DNA variants**.
- It is a **1 petabyte (PB) dataset** containing nucleotide variants and an **AlphaGenome Variant Impact (AVI) score** for each variant.
- It is available through a regular web browser without coding and is **free for academic researchers**.

Scientific Applications

- The Atlas includes both **coding and non-coding genetic variations** and connects variants with the functional DNA sequences they may disrupt.
- It provides thousands of molecular-effect predictions for each variant across gene-regulatory processes and numerous human and mouse cell types and tissues.

Key Technical Terms

- The **AVI score** is a single numerical measure representing the predicted impact of a genetic variant.
- **AVI feature attributions** identify biological features driving the predicted score, including gene-regulation aspects and the **AlphaMissense protein-impact score**.
- The resource contains more than **2,500 recurrent DNA sequence motifs**, described as the “words” of the genome.

Uttar Pradesh in News

BEDF Basmati and Organic Training Centre



IBEF

<https://www.ibef.org/news/union-minister-mr-jitin-pr...>

Union Minister Mr. Jitin Prasada Lays Foundation Stone for ...

1 day ago — **Mr. Jitin Prasada** said the centre would provide farmers with better access to **training**, quality seeds and **organic** inputs, while creating ... [Read more](#)

Why in News

- **Jitin Prasada** laid the foundation stone for the **BEDF Basmati and Organic Training Centre-cum-Demonstration Farm** at **Tanda Bijeshi, Pilibhit, Uttar Pradesh**.

Institutional Framework

- The centre is a joint initiative of **APEDA** and **Basmati Export Development Foundation (BEDF)**.
- **APEDA** is a statutory body under the **Ministry of Commerce and Industry**, established under the **APEDA Act, 1985**, succeeding **PFEPIC**.

Key Functions

- The centre will produce and multiply **quality Basmati seeds**, including breeder, foundation, certified and truthful seeds.
- It will support **AICRIP** through national Basmati trials and provide technical assistance to farmers and extension workers.
- **NCONF** will support training in **organic farming, bio-inputs and organic certification**.

Export Significance

- **Uttar Pradesh** is a major Basmati-producing state and ranks **7th in organic production** and **8th in organic cultivation area** in India.
- **APEDA** will work with **farmers, FPOs and exporters** to improve quality, compliance and access to international markets.