

SANSKRITI IAS DAILY CURRENT AFFAIRS

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Vitamin B6

 Verywell Health

High-Dose Vitamin B6 May Increase the Risk of Nerve Damage

Key Takeaways · Vitamin B6 toxicity is rare, but reported cases have increased by about 40% over the past decade. · High doses of B6 are often...



Why in News: Reports from **America's Poison Centers** indicate that cases of **Vitamin B6 poisoning** have increased by about **40% over the past decade**, although such poisoning remains uncommon.

Physiological Functions

- **Vitamin B6, or pyridoxine**, is a **water-soluble vitamin**, meaning the body has limited capacity to store it.
- It supports **normal brain development, nervous-system function and immune function**.
- It contributes to **antibody formation, haemoglobin synthesis, protein metabolism and blood-glucose regulation**.

Toxicity

- Excessive intake of Vitamin B6 can cause **difficulty coordinating movements, numbness and sensory disturbances**.
- Unlike deficiency, toxicity is generally associated with **high-dose supplementation**, rather than ordinary dietary intake.

Dietary Sources and Deficiency

- Major dietary sources include **poultry, fish, potatoes, chickpeas, bananas and fortified cereals**.
- Vitamin B6 deficiency is more likely in people with **kidney disease** or **malabsorption syndromes** affecting the small intestine.
- **Autoimmune disorders, certain epilepsy medications and alcohol dependence** can also contribute to deficiency.
- Deficiency may cause **anaemia, confusion, depression, irritability, glossitis and peripheral neuropathy**.

Eastern Economic Forum

M Modern Diplomacy

Eastern Economic Forum: Russia Bets on Asia and the Global South

The Eastern Economic Forum has been described as a successful solid platform since its creation. It increasingly attracts guests from widely...



Why in News: The **Eastern Economic Forum (EEF)**

continues to serve as a platform for economic cooperation and investment involving Russia and countries across the Asia-Pacific region.

Institutional Profile

- The **EEF** was established in **2015** by Russian President **Vladimir Putin**.
- It is held annually in **Vladivostok, Russia**, with participation from governments, businesses, investors and experts.
- Its principal objective is to promote development of **Russia's Far East** and expand international economic cooperation in the **Asia-Pacific**.



Russian Far East: Geographical Significance

- Russia's Far East is the country's **easternmost region** and is characterised by sparse population and harsh climatic conditions.
- The macro-region borders the **Pacific Ocean and Arctic Ocean** and is adjacent to **China, Japan, Mongolia, the United States and the North Korea**.
- It spans approximately **four time zones** and contains diverse climatic conditions ranging from northern deserts to subtropical areas.

Resource and Strategic Importance

- The region possesses substantial reserves of **gold, diamonds, oil and natural gas**.
- Around **one-third of Russia's coal reserves and hydro-engineering resources** are located in the region.
- The EEF has increasingly attracted participation from countries including **China, India, Malaysia, Mongolia and Myanmar**, strengthening its Indo-Pacific economic relevance.

Sasthamcotta Lake

TH The Hindu

Newly-wed couple found dead in Sasthamcotta Lake in Keralam

In what the police suspect to be a case of suicide, a young newly-wed couple was found dead in Sasthamcotta Lake near the Ambalakkadavu area...



Why in News: A young newly-wed couple was recently found dead near **Sasthamcotta Lake** in Kerala's Kollam district.

Geographical and Ecological Profile

- **Sasthamcotta Lake**, also called **Sasthamkotta Lake**, is the **largest freshwater lake in Kerala**.
- It is located in **Kollam district** and is named after the ancient **Sastha temple** situated on its bank.
- The lake covers about **375 hectares** in its present form, with parts of the original lake area converted for agriculture.
- It is surrounded by hills on all sides except the south, where a **bund separates it from adjoining rice fields**.

Hydrology and Biodiversity

- The lake receives water primarily from **underground springs**.
- The water stays exceptionally pure because of a specific larva (**Chaoborus**) that eats bacteria in the lake.
- The lake supports **27 species of freshwater fish** and **two genera of prawns**.
- Surrounding forests and wetlands provide habitat for birds such as **egrets, herons and kingfishers**.

International Environmental Status

- Sasthamcotta Lake has been designated a **Ramsar Site** under the **Ramsar Convention** since **November 2002**.
- Its wetland ecosystem is significant for freshwater resources, fisheries and associated biodiversity in Kerala.

Poompuhar

TH The Hindu

T.N. launches third phase of underwater archaeological exploration off Poompuhar coast

In another step forward in tracing the maritime trade links of the ancient Tamils, the Tamil Nadu State Department of Archaeology (TNSDA)...



Why in News: The **Tamil Nadu State Department of Archaeology (TNSDA)** commenced the **third phase of underwater archaeological exploration** off the coast of Poompuhar in Mayiladuthurai district.

Historical and Geographical Setting

- **Poompuhar**, also known as **Puhar** or **Kaveri Poompattinam**, is located in **Mayiladuthurai district, Tamil Nadu**.
- The settlement lies near the point where the **Cauvery River** enters the **Bay of Bengal**.
- The term **Puhar** refers to a river's estuary in the sea.
- It was a major ancient port and served for a period as the capital of the **Early Chola kings in Tamilakam**.

Archaeological Evidence

- Underwater archaeological investigations have recovered **pottery dating to the 4th century BCE** off the coast.
- The city's antiquity is supported by archaeological evidence indicating its establishment thousands of years ago.
- **Silappathikaram** and **Manimekalai**, important Tamil epics, describe the city's prominence in the context of **Sangam literature**.



Environmental and Maritime Context

- Poompuhar is believed to have been repeatedly affected by **large tsunami waves**, contributing to the destruction and submergence of parts of the ancient settlement.
- Its offshore remains make it significant for studying **ancient maritime trade, coastal archaeology and Chola-era history**.

Asian-Pacific Postal Union



Dr. Vinaya Prakash Singh Re-elected APPU Secretary-General for Second Consecutive Term

Dr. Vinaya Prakash Singh, a 1988 batch officer of the Indian Postal Service, has been re-elected as Secretary-General of the Asian-Pacific...



Why in News: **Vinaya Prakash Singh**, a 1988-batch Indian Postal Service officer, was re-elected as **Secretary-General of the Asian-Pacific Postal Union (APPU)** for a second consecutive four-year term.

Institutional Architecture

- The **APPU** is an intergovernmental organisation comprising **32 member countries** from the Asia-Pacific region.
- Its headquarters is located in **Bangkok, Thailand**.
- It is the **only Restricted Union of the Universal Postal Union (UPU)** in the Asia-Pacific region, with the UPU being a **UN specialised agency** dealing with postal services.
- The APPU was established in **1961** to facilitate postal relations and cooperation among member countries.

Regional Postal Cooperation

- The Union works on improving **express services, parcels, e-commerce, logistics, letter post and financial services**.
- It coordinates regional positions on **global postal issues and strategies** and supports integration with the global postal network.

Organisational Structure

- The **Congress** is the supreme organ and meets no later than two years after the UPU Congress.

Training and Leadership

- The **Secretary-General** leads the Union's activities and also serves as Director of the **Asian Pacific Postal College (APPC)** in Bangkok.
- The **APPC** is described as the largest intergovernmental postal training institute in the Asia-Pacific region.

- The **Executive Council** comprises all members and meets annually to oversee the Union's activities.
- The **APPU Bureau** performs liaison, information, inquiry and training functions for member countries.

Other Important News of the day

Places in News

Cape Verde

Why in News: At least **25 people** were reportedly killed in a bus accident in the African island nation of Cape Verde.

Geographical Features

- **Cape Verde**, officially **Cabo Verde**, is an island country in the **central Atlantic Ocean**, off the northwest coast of Africa.
- It consists of **10 volcanic islands**, divided into the **Barlavento (Windward)** and **Sotavento (Leeward)** groups.
- It covers approximately **4,033 sq. km** and lies near **Senegal**, the nearest point on mainland Africa.
- The islands are generally arid, with **stable temperatures and extreme dryness**, and lack significant permanent rivers.



Physical Geography

- The eastern islands are generally **geologically older and flatter**, while the western islands are **younger and more mountainous**.
- Volcanic terrain combined with an arid climate restricts the development of **long or permanent river systems**.

Historical and Political Profile

- The islands were reportedly uninhabited before **Portuguese colonisation in the mid-15th century**.

	➤ Cabo Verde gained independence from Portugal in 1975 and has Praia as its capital. ➤ It is a multiparty republic, with a population largely comprising people of mixed European and African ancestry. Language and Cultural Context ➤ Portuguese is the official language and is primarily used in formal settings. ➤ Crioulo/Cape Verdean Creole is the most widely spoken language and represents an important Portuguese-based creole tradition.
Environment	Bura Chapori Wildlife Sanctuary  India Today NE <u>Assam man killed in wild buffalo attack near Burachapori sanctuary</u> A wild buffalo strayed out of Burachapori Wildlife Sanctuary and fatally attacked Shafikul Islam in a jute field on a river island in Nagaon... Why in News: A man was recently killed after being attacked by a wild buffalo while working in a jute field on a river island near Bura Chapori Wildlife Sanctuary in Assam. Geographical Setting ➤ Bura Chapori Wildlife Sanctuary is located in Sonitpur district, Assam, on the south bank of the Brahmaputra River. ➤ It covers approximately 44.06 sq. km and forms part of the Laokhowa–Burachapori ecosystem. ➤ It lies between Kaziranga National Park to the east, Orang National Park to the west and Laokhowa Wildlife Sanctuary to the south. Ecosystem and Vegetation ➤ The sanctuary falls within the subtropical monsoon climatic regime.

	➤ Its landscape comprises wet alluvial grasslands, riparian forests, semi-evergreen forests, wetlands and river systems. ➤ Important plant species include Hollang, Mekai, Dhuna, Udiyam, Nahar, Samkothal and Bheer, along with medicinal herbs. Faunal Significance ➤ Key mammals include the greater one-horned rhinoceros, tiger, leopard, wild buffalo, hog deer, wild pig and elephant. ➤ Important avifauna include the endangered Bengal Florican, Black-necked Stork, Mallard, Open-billed Stork, Teal and Whistling Duck. ➤ Its location within the Brahmaputra floodplain ecosystem makes it important for grassland, wetland and riverine biodiversity conservation.
Defence	LORA Missile  Reuters <u>Germany successfully tests Israeli ballistic missile, officials say.</u> BERLIN, Sept 2 (Reuters) - Germany successfully tested an Israeli ballistic missile in the North Atlantic overnight, military officials said...  Why in News: Germany recently conducted a LORA missile test in the North Atlantic, according to military officials. Technical Profile ➤ LORA stands for Long Range Artillery and is an Israeli-developed short-range ballistic missile. ➤ It is a single-stage, solid-propellant missile with a length of 5.2 m, diameter of 0.624 m and launch weight of about 1,600 kg. ➤ The missile has a maximum range of approximately 280 km and can carry a payload of up to 600 kg. Guidance and Launch Capability ➤ LORA can be launched from ground-based and sea-based platforms, providing operational flexibility.

- Its guidance combines **Inertial Navigation System (INS)**, **Global Positioning System (GPS)** and **TV-based terminal guidance**.
- It can employ a **high-explosive warhead or submunitions** and reportedly possesses in-flight manoeuvring capability.

Strategic Significance

- The missile is designed to attack **high-value targets deep inside enemy territory**.
- It reportedly entered Israeli service in **2007**, making it an important component of Israel's precision-strike capabilities.

Science and Technology

Hall Effect

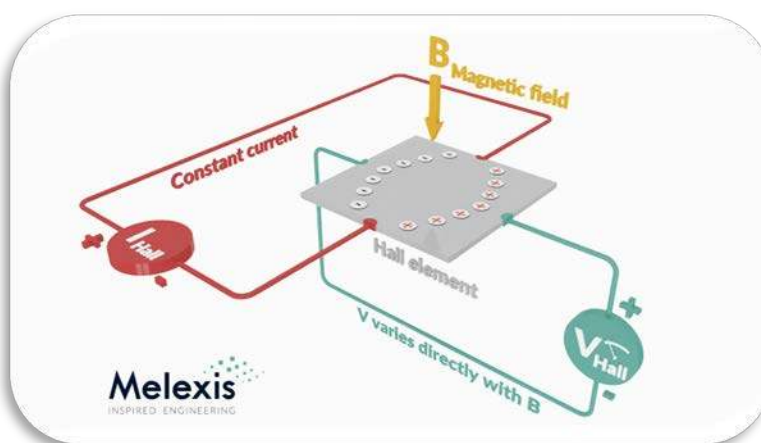
TOI The Times of India

In 1879, Edwin Hall discovered an electrical effect thought to need a perpendicular magnetic field; 147 y

Science News: For more than a century, the Hall effect has been taught with a simple picture that electricity flows through a material,...



Why in News: Scientists have reported an unexpected form of the **Hall effect**, challenging the conventional assumption that the effect requires a magnetic field perpendicular to a material's plane.



Physical Principle

- The **Hall effect** occurs when a current-carrying conductor or semiconductor experiences a magnetic field, producing a measurable voltage transverse to the direction of current.

- American physicist **Edwin H. Hall** discovered the phenomenon in **1879**.
- The deflection of charged particles results from the **Lorentz force** acting on moving charges in an electromagnetic field.
- **Semiconductors such as silicon and germanium** can generate a relatively strong Hall response, enabling sensitive measurements.

Applications

- **Hall sensors** measure magnetic-field strength, with output voltage related to the magnetic field passing through the sensor.
- The technology is used for **proximity sensing, position detection, speed measurement, current sensing, switches and joysticks**.

Recent Scientific Significance

- Conventional understanding associated the Hall response mainly with magnetic fields **perpendicular to the film plane**.
- New findings indicate that a magnetization-related Hall response can occur in **multiple directions**.
- This could assist research on **multidimensional magnetic and topological structures** in condensed-matter physics.

Uttar Pradesh in News

Uttar Pradesh Releases Constituency Development Fund



Indianmasterminds

Uttar Pradesh Releases ₹1,242.50 Crore Constituency Development Fund Ahead of 2027 Assembly Elections

Uttar Pradesh releases ₹1242.50 crore constituency development funds for roads, drainage, water, lighting and other local infrastructure...



Why in News: The **Uttar Pradesh Government** released **₹1,242.50 crore** under the **Vidhan Mandal Kshetra Vikas Nidhi** for constituency-level development ahead of the **2027 Assembly elections**.

Allocation Details

- ₹995 crore was allocated for 398 sitting MLAs at ₹2.50 crore per member.
- ₹247.50 crore was allocated for 99 sitting MLCs at ₹2.50 crore per member.
- The Assembly has 403 seats, while the Legislative Council has 100 seats, with 5 and 1 vacancies, respectively.

Permitted Development Works

- Funds can support roads, drainage, sewerage, drinking water, street lighting and community infrastructure.
- Keshav Prasad Maurya, Deputy Chief Minister, approved the release.

Governance Significance

- Officials have been directed to complete sanctioned works within the prescribed timelines, ensuring timely delivery of constituency-level infrastructure.