

SANSKRITI IAS DAILY CURRENT AFFAIRS

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Ghepan Lake

 The Tribune

No immediate threat from Ghepan lake in Lahaul-Spiti: Experts

The devastating flash floods in Nepal have brought renewed attention to Ghepan lake above Sissu village in Lahaul and Spiti.



Why in News: The Lahaul-Spiti district administration has decided to strengthen monitoring and precautionary measures for **Ghepan Glacial Lake** after the devastation caused by a glacial burst in Nepal.

Geographical and Cultural Significance

- **Ghepan Lake**, locally known as **Ghepang Ghat**, is a high-altitude glacial lake in the **Lahaul region of Himachal Pradesh**.
- It is situated at an altitude of **4,070 metres** and is named after **Ghepan, the protector deity of Lahaul**.
- The lake is known for its **turquoise-blue waters** and is generally accessed through a challenging trek beginning from **Sissu**.

Glacial Characteristics

- **Three hanging glaciers** feed the lake, creating an unusual alpine-glacial setting above **15,000 feet**.
- Rapid **glacier melt over the past three decades** has significantly expanded the lake.

Disaster and Climate Impacts

- A sudden collapse of the lake could trigger a **Glacial Lake Outburst Flood (GLOF)** carrying water, rocks and debris downstream.
- The expansion of Ghepan Lake reflects the broader impact of **climate change in the Western Himalaya**.
- Strengthened monitoring is therefore important for **downstream disaster-risk reduction**.

Attunli Hydroelectric Project

Power Peak Digest

Arunachal Pradesh's Attunli hydro project gets EAC's environmental nod

The Expert Appraisal Committee (EAC) for River Valley and Hydroelectric Projects has recommended environmental clearance for SJVN Limited's 680 MW Attunli...



Why in News: The **Expert Appraisal Committee (EAC) for River Valley and Hydroelectric Projects** recommended environmental clearance for SJVN Limited's **680 MW Attunli Hydroelectric Project** in Arunachal Pradesh.

Project Profile

- The project is a **680 MW run-of-river hydropower project** in **Dibang Valley district, Arunachal Pradesh**.
- It involves an **85-metre concrete gravity dam** across the **Tangon (Talo) River**.
- The project includes a **7.955 km head race tunnel**, a **93-metre surge shaft** and twin pressure shafts.
- Its underground powerhouse will have **four 170 MW Francis turbines**.

Strategic Significance

- The project will contribute to **hydropower generation** in the strategically important **Dibang Valley** region.
- SJVN is a collaborative venture between the **Government of India and Government of Himachal Pradesh**.

Output and Institutional Linkage

- The project is expected to generate around **2,728 million units annually**.
- It was initially conceived by **Attunli Hydro Electric Power Company Limited**, a joint venture of **Jindal Power** and the **Hydro Power Development Corporation of Arunachal Pradesh**.
- The project was subsequently allotted to **Satluj Jal Vidyut Nigam (SJVN)**.

Liocheles gracilipalpus

The Tribune

New scorpion species discovered in Shivalik Hills of J&Ks Reasi

A team of researchers has discovered and formally described a new species of scorpion from the Shivalik Hills of Reasi district in Jammu and...



Why in News: Researchers discovered and formally described a new scorpion species, *Liocheles gracilipalpus*, from the **Shivalik Hills of Reasi district, Jammu and Kashmir**.

Taxonomy and Distribution

- *Liocheles gracilipalpus* belongs to the scorpion family **Hormuridae**.
- It was discovered at an elevation of **1,655 metres above sea level** in the Shivalik Hills.
- The genus had previously been represented in India by species including *L. australasiae*, *L. nigripes* and *L. schalleri*.
- **Distinctive Features** The species has unusually **long and slender pedipalps**, the pincer-like appendages of scorpions.
- Its total body length ranges from **34.8 to 43.2 mm**, making it relatively large for its genus.
- Its body varies from **greyish brown to dark brown**, while the legs and tail are lighter.
- Researchers observed **sexual dimorphism**, particularly in the structure of the pedipalps.

Habitat and Scientific Significance

- It was found beneath **flat rocks near a man-made wall** and was also observed in human-inhabited areas such as wood-storage sheds.
- Its recorded distribution extends from **1,655 metres to Reasi town at around 600 metres**.

Ramon Magsaysay Award

8 The Business Standard

Friendship founder Runa Khan wins 2026 Ramon Magsaysay Award

Bangladesh's Runa Khan, founder and executive director of non-governmental organisation Friendship, has received the 2026 Ramon Magsaysay...



Why in News: Singaporean lawyer and diplomat **Tommy Koh**, Myanmar activist **Bo Kyi** and Bangladeshi social worker **Runa Khan** were named among the winners of the **Ramon Magsaysay Award**.

Award Profile

- The **Ramon Magsaysay Award** is regarded as a major Asian honour recognising **transformative leadership and public service**.
- It was first given in **1958** and is named after former **Philippine President Ramon Magsaysay**.
- The award is presented in **Manila, Philippines**, traditionally on **31 August**.
- Awardees receive a **certificate and medallion** bearing the profile of Ramon Magsaysay.



Historical Categories

- From **1958 to 2008**, the award was given in categories including **Government Service, Public Service, Community Leadership, Journalism/Literature/Creative Communication Arts, Peace and International Understanding, and Emergent Leadership**.
- **Emergent Leadership** was introduced in **2000** and was supported by a grant from the **Ford Foundation**.

- Since **2009**, the award has generally not been given in fixed categories, except **Emergent Leadership**.

AstroRad

S Space

Radiation-shielding vest aced Artemis I lunar test, could protect astronauts on moon and Mars missions

"AstroRad could help overcome one of the major health challenges limiting long-duration human exploration beyond Earth."



Why in News: Israeli company **StemRad**, with **Lockheed Martin**, has developed **AstroRad**, a radiation-shielding vest for astronauts undertaking space travel.

Technology and Purpose

- **AstroRad** is a wearable radiation-shielding vest designed to protect astronauts from dangerous **space radiation beyond Low-Earth Orbit (LEO)**.
- It is designed to reduce **Radiation Exposure Induced Death (REID)** and prevent **Acute Radiation Syndrome (ARS)** associated with solar particle events.
- The technology was developed by **StemRad** with support from the **Israel Space Agency and Lockheed Martin**.



Smart Shielding Principle

- Its proprietary design selectively protects organs and tissues that are most sensitive to radiation while minimising shielding mass.
- Radiation-sensitive organs include the **lungs, bone marrow, colon, stomach, breasts and ovaries**.

- Variable shielding thickness is used to complement the body's natural shielding.

Material and Design

- The shielding uses a **hydrogen-rich polymer**, which helps minimise the generation of secondary radiation.
- Individual solid shielding elements are arranged in a **scale-like architecture** to permit astronaut movement and comfort.

Coral Bleaching

Down To Earth

Coral bleaching events becoming more frequent, leaving reefs little time to recover

Global coral reefs are bleaching more often, with recovery windows shrinking as marine heatwaves intensify. A new GCRMN report shows hard...



Why in News: The **7th Status of Coral Reefs of the World Report** by the **Global Coral Reef Monitoring Network (GCRMN)** reported that coral bleaching events are becoming more frequent and recovery periods have shortened significantly.

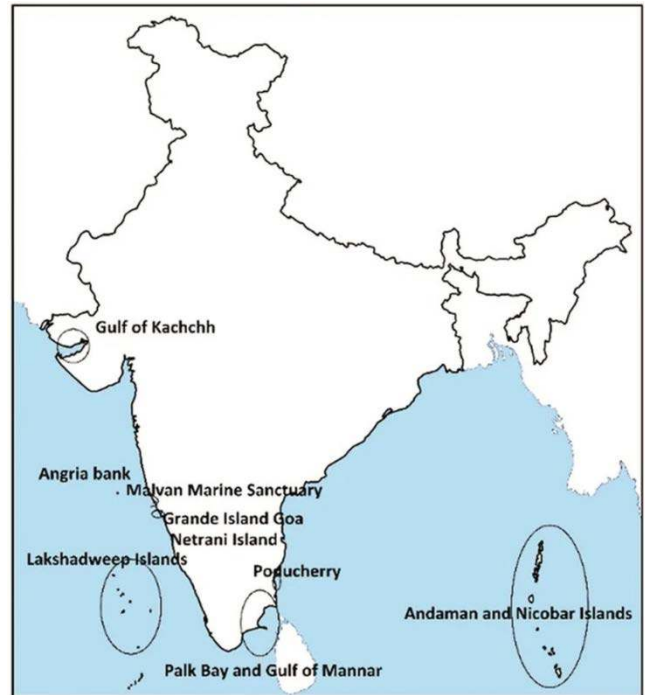
Scientific Process

- **Coral bleaching** occurs when corals are stressed by environmental changes such as **increased temperature, pollution and ocean acidification**.
- Under stress, **zooxanthellae** living inside coral polyps produce reactive oxygen species, leading corals to expel these algae.
- The loss of zooxanthellae exposes the pale coral skeleton and disrupts the **symbiotic relationship** essential for coral growth and survival.



Major Causes

- **Rising ocean temperature due to climate change** is the leading cause of coral bleaching.
- **Polluted runoff and storm-generated precipitation** can cause bleaching, particularly in near-shore corals.
- **High solar irradiance** and exposure during **extremely low tides** can also trigger bleaching in shallow-water corals.



Coral Biology

- Corals are **marine invertebrates**, with individual organisms called **polyps** forming colonies.
- Corals maintain a **symbiotic relationship** with single-celled algae called **zooxanthellae**, which provide food and nutrients through **photosynthesis**.
- In return, corals provide the algae with shelter and nutrients, while zooxanthellae contribute to the corals' characteristic colour.

Indian Coral Reef Regions

- Major coral reef regions in India include the **Gulf of Mannar, Gulf of Kutch, Lakshadweep and Andaman & Nicobar Islands**.

Permanent Court of Arbitration (PCA)

 CNBC

India rejects court order to uphold decades-old water-sharing treaty with Pakistan

The arbitration ruling adds a new layer of stress to a long-simmering water dispute between two nuclear-armed neighbors.



Why in News: The **PCA** ruled that the **Indus Waters Treaty (IWT)** remains in force and restricted certain works on the **Ratle Hydroelectric Project**; India rejected the ruling.

Institutional Profile

- The **PCA** facilitates **arbitration, conciliation and fact-finding** in international disputes.
- It is **not a conventional permanent court with fixed judges** but supports ad-hoc arbitral tribunals.
- It was established in **1899** under the **Hague Convention** and is headquartered at the **Peace Palace, The Hague**.
- **India and Pakistan** have been PCA Contracting Parties since **1950**.

IWT Context

- The **Indus Waters Treaty, 1960**, allocates **Ravi, Beas and Sutlej** primarily to India and **Indus, Jhelum and Chenab** primarily to Pakistan.
- The treaty permits India limited hydropower use of the **Western Rivers**.
- In **August 2026**, the PCA held that the IWT remains binding and restricted specified works on the **850 MW Ratle Project** on the Chenab.

India's Position

- India argues that **Article IX** provides a graded mechanism involving the **Permanent Indus Commission, Neutral Expert and Court of Arbitration**.
- India considers the Court of Arbitration **illegally constituted** and its decisions on **Ratle and Kishenganga** null and void.
- India maintains that the IWT is in **abeyance** due to security concerns.

Distinguished Jurist Provision

TH The Hindu

Can jurists be appointed as Supreme Court Judges? | Explained

Explore the unused constitutional provision for appointing jurists as Supreme Court Judges and its implications for legal academia.



Why in News: Justice **Ujjal Bhuyan** highlighted the unused provision under **Article 124(3)(c)** for appointing a distinguished jurist as a Supreme Court judge.

Constitutional Framework

- **Article 124(3)(c)** allows an Indian citizen considered a “**distinguished jurist**” by the **President** to qualify for Supreme Court appointment.
- It provides an alternative route for eminent **legal scholars and academicians** without prior judicial or advocacy experience.
- A similar High Court provision introduced by the **42nd Amendment Act, 1976** was removed by the **44th Amendment Act, 1978**.

Historical Linkages

- **V. Kamath** proposed the provision during the **Constituent Assembly debates in 1949**.
- **B. R. Ambedkar** supported the use of the term “distinguished jurist”.

Key Fact

- Despite existing since **26 January 1950**, no distinguished jurist has been appointed directly to the Supreme Court through this provision.

Other Important News of the day

**Places
in
News**

Germany



News On AIR

4th Indo-German Environmental Forum to be held in New Delhi today

The 4th Indo-German Environmental Forum will be held in New Delhi today to strengthen bilateral cooperation and facilitate multi-stakeholder...



Why in News: India and Germany are conducting the **4th Indo-German Environment Forum** in New Delhi under the theme **“Together For More Resilience.”**

Geographical Position

- **Germany** is located in **Central Europe** and shares land borders with **nine countries**.
- Its neighbours are **Denmark, Poland, Czech Republic, Austria, Switzerland, France, Luxembourg, Belgium and the Netherlands**.
- Germany has maritime boundaries with the **North Sea** and the **Baltic Sea**.

Physical Geography

- The capital of Germany is **Berlin**, and the country has a generally **temperate climate**.
- Major mountain regions include the **Alps and Bavarian Highlands**.
- Major rivers include the **Rhine, Elbe and Danube**.

Natural Resources and Important Lake

- **Lake Constance** is the largest freshwater lake associated with Germany and also borders **Austria and Switzerland**.

	➤ Important natural resources include lignite, coal, natural gas, iron ore, copper, nickel, potash and uranium.
Environment	Sharp-tailed Sandpiper
	 The Indian Express <u>Only fifth recorded sighting in 150 yrs: Rare Siberian visitor spotted at Najafgarh lake</u> Smaller numbers fly to Melanisia, a cluster of islands in the southwestern Pacific Ocean between New Guinea in the west to Fiji in the east.  Why in News: A rare sharp-tailed sandpiper was recently spotted in Chandu village, Gurgaon. Taxonomy and Habitat ➤ The sharp-tailed sandpiper is scientifically known as <i>Calidris acuminata</i> and is a small wader bird. ➤ It inhabits freshwater marshes and coastal mudflats and may also occur inland. ➤ Breeding occurs in northern Siberia, extending from the Lena River Delta towards the Kolyma region. Migration and Feeding ➤ It migrates southwards through East Asia to major non-breeding grounds in Australia and New Zealand. ➤ Its diet includes seeds, worms, molluscs, crustaceans and insects. ➤ It often forages in agricultural pastures and shallow wetland margins, particularly after rainfall. Threat Status ➤ Major threats include pollution, altered sediment flows and sea-level rise.

	➤ The IUCN Red List categorises the species as Vulnerable.
Defence	Exercise Super Garuda Shield
	 U.S. Embassy & Consulates in Indonesia (.gov) Super Garuda Shield 2026 Opens in Indonesia, Reinforcing United States-Indonesia Strategic Partnership Bandung, West Java – The United States Armed Forces and the Indonesian National Armed Forces (TNI), in collaboration with 13... 
	Why in News: The US and Indonesia launched the annual Super Garuda Shield exercise, being conducted across Indonesia until 11 September 2026. Exercise Profile ➤ Super Garuda Shield is hosted by Indonesian Armed Forces (TNI) and co-led by USINDOPACOM. ➤ It began in 2006 as the bilateral Garuda Shield and later became a multilateral, multi-domain exercise. ➤ 13 partner and observer nations participate, including Japan, South Korea, Australia, Canada, UK, France and Singapore. Key Features ➤ It covers land, air, maritime and cyber domains, including airborne operations, live-fire drills and amphibious assaults. ➤ It includes jungle warfare, reconnaissance and special operations. ➤ HADR exercises prepare forces for earthquakes, tsunamis, volcanic eruptions and wildfires. Strategic Significance ➤ Strengthens the US–Indonesia defence partnership and military interoperability.

	➤ Reflects Indonesia's policy of strategic autonomy while maintaining ties with both the US and China. ➤ Supports security of major SLOCs, including the Malacca, Sunda and Lombok Straits.
Science and Technology	Rotenone TOI The Times of India <u>In 2015, Utah reset Red Fleet Reservoir with rotenone; fertile walleye were removed before sterile walley</u> Science News: In a strategic move to protect native fish, Utah wildlife managers removed every fertile walleye from Red Fleet Reservoir...  Why in News: Biologists in Southcentral Alaska used rotenone to eliminate an invasive population of northern pike as part of lake restoration. Chemical Characteristics and Uses ➤ Rotenone is a naturally occurring compound obtained from the roots of tropical plants belonging to the genera Derris, Lonchocarpus and Tephrosia. ➤ It is commonly used as an insecticide and pesticide and has also been used in fisheries management. ➤ At carefully calculated concentrations, it blocks oxygen uptake in fish gills, thereby killing fish while leaving most other aquatic organisms unaffected. ➤ The compound breaks down relatively quickly in sunlight and warm water and is commercially available as wettable powder or liquid. About Northern Pike ➤ Northern pike is a freshwater predatory fish belonging to the family Esocidae.

- Its scientific name is *Esox lucius*, and it is native to **circumpolar regions**.
- It occurs across parts of the **USA, Alaska, Canada, Europe and Asia**, including rivers, lakes and the brackish **Baltic Sea**.

Ecological Concern

- Northern pike can become invasive outside its native range because it preys on native fish such as **trout, perch and bass**.
- The **IUCN Red List** categorises northern pike as **Least Concern**.

Uttar Pradesh in News

Lokmata Ahilyabai Matrishakti Yojana

 Jagran

सीएम योगी ने मुफ्त बस यात्रा का किया शुभारंभ, 60+ उम्र की महिलाएं बसों में निःशुल्क कर सकेंगी सफर

मुख्यमंत्री योगी आदित्यनाथ ने 'लोकमाता अहिल्याबाई मातृशक्ति यात्रा' योजना...



Why in News: The **Uttar Pradesh Government** implemented the **Lokmata Ahilyabai Matrishakti Yojana** for elderly women.

Key Features

- **Women above 60 years** can travel **free of cost in Uttar Pradesh roadways buses**.
- Beneficiaries need **Aadhaar or another valid identification document** to establish age.
- Women unable to produce valid identification must pay the applicable fare.

Implementation

- The scheme was implemented alongside the **free travel facility on Rakshabandhan**.
- It aims to provide **mobility and financial relief** to elderly women.