

# SANSKRITI IAS DAILY CURRENT AFFAIRS

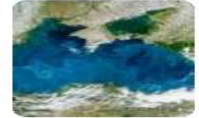
24-07-2026

## Black Sea

 Hindustan Times

### Why Black Sea has become the Russia-Ukraine war's most crucial battleground | World News

Bordered by Europe, Asia and West Asia, the Black Sea is a vital trade and security corridor. | World News.



### Why in News

- India issued a security advisory for ships flying the Indian flag or employing Indian seafarers operating in the **Black Sea** region.

### Geographical Characteristics

- The **Black Sea** is a large inland sea located between **Europe and Asia**.
- It is one of the **marginal seas of the Atlantic Ocean**.
- It covers an area of about **436,000 sq. km**.
- It has **lower salinity** than the world's oceans because of limited water exchange.



### Bordering Countries and Connectivity

- It is bordered by **Ukraine, Russia, Georgia, Turkey, Bulgaria and Romania**.
- The **Crimean Peninsula** projects into the Black Sea from the north.
- The **Bosporus Strait, Sea of Marmara and Dardanelles Strait** connect it to the **Mediterranean Sea** and the **Atlantic Ocean**.
- The **Kerch Strait** connects it with the **Sea of Azov**.

### Hydrology and Economic Importance

- Major rivers flowing into it include the **Danube, Dnieper, Dniester, Southern Bug and Rioni**.

- **Russia** has the longest Black Sea coastline, followed by **Turkey** and **Ukraine**.
- It serves as a major maritime route for exports from **Eastern Europe**.
- **Ukraine** possesses the highest number of islands in the Black Sea.

### Strategic Relevance

- The region is central to **European energy, trade and maritime security**.
- Control over the **Bosporus and Dardanelles** remains strategically significant.
- The Black Sea has emerged as a critical theatre in contemporary geopolitical conflicts.

## Crime and Criminal Tracking Network & Systems (CCTNS)

 The New Indian Express

### Telangana ranks 13th in e-Zero FIR implementation: DGP

Noting that the rollout of the e-Zero FIR system had not yet reached its full potential, he asked officers to expedite its implementation.

### Why in News

- **Chhattisgarh** scored **64.97/100** in the latest **National Crime Records Bureau (NCRB)** assessment of the **Crime and Criminal Tracking Network & Systems (CCTNS)**.

### Major Objectives

- It enables **citizen-centric police services** through an online portal.
- It facilitates **real-time collection, updating and sharing of crime and criminal data**.
- It provides **Pan-India search** of national crime and criminal records.

#### Institutional Framework

- **CCTNS** was conceptualised by the **Ministry of Home Affairs (MHA)** in **2009**.
- It aims to create a comprehensive and integrated **e-Governance platform** for policing.
- It covers **all States and Union Territories** and more than **15,000 police stations**.

### Membership

- The **EAS** has **19 members**.
- It includes **11 ASEAN members** along with **Australia, China, India, Japan, New Zealand, Republic of Korea, Russia and the United States**.
- **Timor-Leste** joined following its **ASEAN accession in October 2025**.

- It supports computerisation of police processes and crime reporting.

### Governance Significance

- It improves coordination among State Police, Central Law Enforcement Agencies and citizens.
- It establishes vertical connectivity from police stations to **State Crime Records Bureaus (SCRBs)**.
- It also provides horizontal connectivity between State and Central agencies.
- It strengthens data-driven policing, investigation and criminal justice delivery.

## East Asia Summit (EAS)



News On AIR

### EAM S Jaishankar calls for safe & unblocked international waterways at East Asia Summit

India today stressed that international waterways must remain safe and unblocked and called for dialogue and diplomacy to end the West Asia...



### Why in News

- During the **21st East Asia Summit** in **Manila**, India's External Affairs Minister stressed that global maritime routes must remain safe and unimpeded.

### Institutional Profile

- The **East Asia Summit (EAS)** is the **Indo-Pacific's premier leader-led forum** for strategic dialogue.

- It was established in 2005 at Kuala Lumpur, Malaysia.
- India is a founding member of the summit.
- The forum is led by ASEAN, whose chair rotates annually.

### Priority Areas

- The summit promotes cooperation in Environment and Energy.
- Other priority areas include Education, Finance, Global Health, Natural Disaster Management and ASEAN Connectivity.
- It also addresses emerging political, security and economic challenges in the Indo-Pacific.

### Strategic Importance

- The EAS supports a free, open, inclusive and rules-based Indo-Pacific.
- It provides an important platform for dialogue on maritime security and regional stability.
- It strengthens ASEAN centrality in regional architecture.

## Arunachaleswarar Temple

TH The Hindu

### Man held for using duplicate keys to allow devotees worship at Arunachaleswarar temple in Tiruvannamalai

A man was arrested for using duplicate keys to illegally facilitate worship at Arunachaleswarar temple in Tiruvannamalai.



### Why in News

- A man was arrested for illegally facilitating devotees' entry into the Arunachaleswarar Temple at Tiruvannamalai, Tamil Nadu.

### Historical Significance

- The Arunachaleswarar Temple, also known as Annamalaiyar Temple, is located at the base of Arunachala Hill in Tamil Nadu.
- It is dedicated to Lord Arunachalesvara, a form of Lord Shiva.

- The present structure was initiated by the **Early Cholas** (9th century CE).
- It was later expanded by the **Later Cholas, Hoysalas and Vijayanagara Nayakas**.

### Architectural Features

- The temple is an outstanding example of **Dravidian architecture**.
- The complex spreads over nearly **25 acres**, making it one of India's largest temples.
- It has **four monumental gopurams** with elaborate carvings.
- The **eastern rajagopuram** is about **66 metres** high with **11 storeys**, making it one of the tallest temple towers in India.
- The temple consists of **five precincts**, each containing a large **Nandi** and multiple towers.
- The famous **thousand-pillared hall** was constructed during the **Vijayanagara period**.

### Cultural Importance

- The temple is one of the most revered **Shaivite pilgrimage centres** in South India.
- It is closely associated with the sacred **Arunachala Hill**, an important spiritual site in **Tamil Shaivism**.
- It represents the continuity of **Chola and Vijayanagara temple-building traditions**.

### Picrorhiza kurroa

THE HINDU

[Himachal farmers pioneer sustainable cultivation of endangered Himalayan herb 'Kutki'](#)

Himachal farmers adopt sustainable methods to cultivate endangered herb Kutki, boosting conservation and rural income in the Himalayas.



### Why in News

- A sustainable cultivation model in **Mandi district, Himachal Pradesh**, is helping conserve **Picrorhiza kurroa**.

### Conservation Dimensions

- IUCN Red List: Endangered.
- CITES: Appendix II.
- Sustainable cultivation reduces pressure on wild Himalayan populations.

### Botanical Profile

- *Picrorhiza kurroa* is a perennial medicinal herb with underground rhizomes.
- It is popularly known as Kutki.
- The name is derived from Greek words "Picros" (bitter) and "Rhiza" (root).

### Habitat and Distribution

- It is native to the alpine and sub-alpine Himalayas at elevations of 2,700–4,500 metres.
- It occurs from Garhwal to Bhutan and Kashmir to Sikkim, besides Pakistan, Tibet, western China and Myanmar.
- It prefers north-west-facing moist slopes with porous sandy clay soil.
- It can be propagated through seedlings, rhizomes, stolons and offsets.

### Medicinal Importance

- The medicinally important parts are the rhizomes and roots.
- It possesses hepatoprotective, anti-pyretic, anti-malarial, anthelmintic and laxative properties.
- It improves appetite and is used for treating asthma, cough and cold.

## Ratle Hydroelectric Project

GK Greater Kashmir

### Chenab river swells after heavy rain, Cofferdam at 850 MW Ratle Hydroelectric Project damaged

Continuous heavy rainfall across Jammu and Kashmir has led to a sharp rise in the water level of the Chenab River, damaging the temporary...

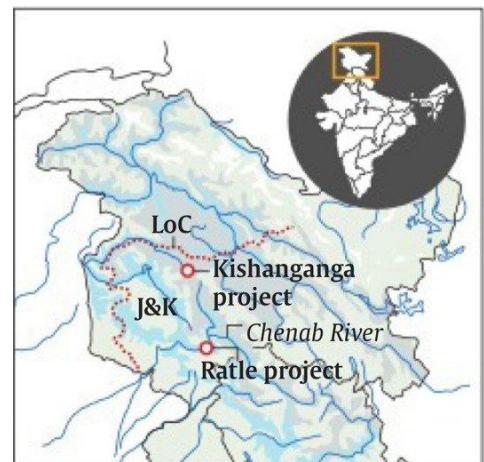


### Why in News

- Heavy rainfall damaged the temporary cofferdam of the under-construction **850 MW Ratle Hydroelectric Project** on the **Chenab River** in **Jammu & Kashmir**.

### Project Profile

- The **Ratle Hydroelectric Project** is an **850 MW run-of-river** hydropower project.
- It is located on the **Chenab River** in **Kishtwar district, Jammu & Kashmir**.
- It is situated downstream of Dulhasti and upstream of Baglihar projects.



### Institutional Framework

- The project is implemented by the **Ratle Hydroelectric Power Corporation Limited (RHPCL)**.
- RHPCL** is a joint venture between **NHPC (51%)** and **JKSPDC (49%)**.
- Construction is being executed by **Megha Engineering and Infrastructure Limited (MEIL)**.

### Engineering Features

- The project includes a **133-metre-high concrete gravity dam**.
- It has an underground powerhouse housing **four 205 MW Francis turbines** and one **30 MW auxiliary unit**.
- It is expected to generate about **3,137 GWh** of electricity annually.

## Strategic and International Dimensions

- The project is developed under the framework of the **Indus Waters Treaty, 1960**.
- **Pakistan** has repeatedly alleged that the project violates provisions of the treaty.
- Hydropower development on the **Chenab River** remains strategically significant for India's energy and water security.

### Other Important News of the day

#### Places in News

#### Romania

##### Why in News

- The **President of India** held bilateral talks with the **President of Romania** during her State Visit to Romania.

##### Geographical Profile

- **Romania** is located in **South-Eastern Europe**.
- It is bordered by **Ukraine, Moldova, Bulgaria, Serbia and Hungary**.
- It has a maritime boundary along the **Black Sea**.
- Its capital city is **Bucharest**.



##### Physical Features

- The **Carpathian Mountains** dominate the country's relief.
- The climate is temperate with **four distinct seasons**.
- Major rivers include the **Danube, Argeş, Tisza and Prut**.
- **Mount Moldoveanu** is the country's highest peak.

##### Strategic Importance

- Romania became a member of **NATO** in **2004**.

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                           | <ul style="list-style-type: none"> <li>• It joined the <b>European Union (EU)</b> in <b>2007</b>.</li> <li>• Its location on the <b>Black Sea</b> gives it strategic importance in European security.</li> </ul> <p><b>Economic Resources</b></p> <ul style="list-style-type: none"> <li>• Romania possesses significant reserves of <b>petroleum, gold, silver and uranium</b>.</li> <li>• The <b>Danube River</b> enhances inland navigation and regional trade.</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <p><b>Environment</b></p> | <p><b>Tetragonula yikhumensis</b></p> <p><b>Why in News</b></p> <ul style="list-style-type: none"> <li>• A team of researchers discovered a new species of stingless bee, <b>Tetragonula yikhumensis</b>, in <b>Wokha district, Nagaland</b>.</li> </ul> <p><b>Taxonomic Significance</b></p> <div style="display: flex; align-items: center;"> <ul style="list-style-type: none"> <li>• <b>Tetragonula yikhumensis</b> is a newly identified species of <b>stingless bee</b>.</li> </ul> <div style="margin-left: 20px;">  <p style="font-size: small; text-align: center;">Tetragonula yikhumensis (photo by: Nagaland Post)</p> </div> </div> <ul style="list-style-type: none"> <li>• It is named after <b>Yikhum village</b>, where the species was first collected.</li> <li>• The discovery increases India's known <b>stingless bee species from 25 to 26</b>.</li> <li>• The genus <b>Tetragonula</b> now comprises <b>18 species</b> in India.</li> </ul> <p><b>Ecological Characteristics</b></p> <ul style="list-style-type: none"> <li>• It is a <b>subterranean species</b> that constructs nests underground.</li> <li>• It is the <b>second underground-nesting species</b> of the genus reported from India.</li> </ul> |

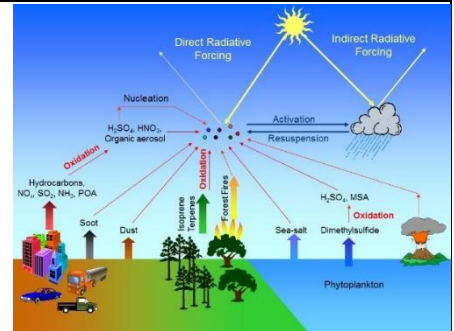
|         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|---------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|         | <ul style="list-style-type: none"> <li>Colonies occur at depths of more than two metres below the ground.</li> <li>The nests contain separate chambers for honey, pollen and brood connected through narrow entrance tunnels.</li> </ul> <p><b>Distinctive Features</b></p> <ul style="list-style-type: none"> <li>It measures about 5.59 mm, making it the <b>largest stingless bee recorded in India</b>.</li> <li>It is distinguished by its <b>unique morphology, body size and nest architecture</b>.</li> <li>The nests are protected by hard layers of batumen, enhancing structural stability.</li> </ul>                                                                                                                                                                                                                                                                     |
| Defence | <p><b>Kusha Missile</b></p> <p><b>Why in News</b></p> <ul style="list-style-type: none"> <li>DRDO successfully conducted the maiden flight test of the <b>Kusha Missile</b> from Dr. APJ Abdul Kalam Island.</li> </ul> <p><b>Defence Capabilities</b></p> <ul style="list-style-type: none"> <li><b>Kusha</b> is an indigenous <b>long-range Surface-to-Air Missile (SAM)</b> system.</li> <li>It can intercept <b>fighter aircraft, missiles, UAVs and large enemy aircraft</b>.</li> <li>Typical engagement range exceeds <b>200 km</b>.</li> </ul>  <p><b>Project Kusha</b></p> <ul style="list-style-type: none"> <li>It is also known as the <b>Extended Range Air Defence System (ERADS)</b>.</li> <li>It is being developed by <b>DRDO</b> with support from Indian industry.</li> </ul> |

|                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                               | <ul style="list-style-type: none"> <li>• It is intended to become the backbone of India's future long-range air defence network.</li> </ul> <p><b>Operational Architecture</b></p> <ul style="list-style-type: none"> <li>• The system has a three-tier interceptor structure comprising M1, M2 and M3 missiles.</li> <li>• Their engagement ranges are approximately 150 km, 250 km and 350–400 km, respectively.</li> <li>• It will integrate with the Integrated Air Command and Control System (IACCS) for network-centric air defence.</li> </ul> <p><b>Strategic Significance</b></p> <ul style="list-style-type: none"> <li>• It strengthens India's indigenous missile defence capability.</li> <li>• It enhances protection against multi-domain aerial threats.</li> <li>• It supports the national objective of Aatmanirbhar Bharat in Defence.</li> </ul> |
| <p>Science and Technology</p> | <p><b>Aerosols</b></p> <p><b>Why in News</b></p> <ul style="list-style-type: none"> <li>• A recent study reported that South Asia faces the highest climate impacts from dust-pollution aerosols, causing significant atmospheric heating.</li> </ul> <p><b>Scientific Basis</b></p> <ul style="list-style-type: none"> <li>• Aerosols are tiny solid or liquid particles suspended in the atmosphere.</li> <li>• They originate from desert dust, industries, vehicle emissions and forest fires.</li> </ul>                                                                                                                                                                                                                                                                                                                                                         |

- They reflect or absorb solar radiation, influencing Earth's energy balance and climate.

### Classification

- **Primary aerosols** are directly emitted (e.g., sea spray, volcanic ash, smoke and mineral dust).
- **Secondary aerosols** are formed through atmospheric chemical reactions (e.g., sulphate aerosols).



### Climate Significance

- Aerosols affect temperature, rainfall and cloud formation.
- **Black carbon-rich, strongly absorbing aerosols** produce maximum atmospheric warming.
- **Very weakly absorbing aerosols** reflect more sunlight, resulting in lower warming.

### Key Findings

- The study classified aerosols into seven categories based on absorption characteristics.
- **Pure dust** dominates **North Africa**, while **black carbon-rich aerosols** drive stronger warming over **South Asia**.

## Uttar Pradesh in News

### Uttar Pradesh Energy Forests

#### Why in News

- The **Uttar Pradesh Government** will establish 'Energy Forests' in every development block under the "One Tree in the Name of

**"Mother" Plantation Mahayagna-2026** to ensure sustainable fuelwood availability in rural areas.

### Key Features

- **Energy Forests** covering at least **1 hectare** will be developed in every development block.
- The plantations will be raised on **forest land, village community land or community agricultural land**.
- The initiative will be implemented by the **Forest and Wildlife Department** with support from the **Rural Development Department** and **Panchayati Raj Department**.



### Ecological Significance

- Fast-growing species such as **Alder, Acacia, Subabul, Gum and Kadamba** will be planted.
- The initiative aims to reduce pressure on **natural forests**, promote **sustainable fuelwood supply**, and support **environmental conservation**.

### Fuelwood Demand

- According to the **2020 MoEFCC** report, each villager living near forests consumes an average of **226 kg of fuelwood annually**.
- The annual fuelwood requirement of **22.7 million** forest-dependent villagers is estimated at **5.14 million tonnes**.