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Purse Seine Fishing

Live Law

Supreme Court Calls For Cooperative Federalism Between Centre, Tamil Nadu In Regulating Purse Seine...

The Court directed Tamil Nadu to ensure timely clearance of applications for Access Passes for purse seine fishing vessels to fish in...



Why in News: The **Supreme Court** recently emphasised that the Union and State Governments must follow **cooperative federalism** for effective regulation of purse seine fishing in India's **Exclusive Economic Zone (EEZ)** and territorial waters.

Fishing Method and Characteristics

- **Purse seine** is a large wall of netting deployed in a circle around a dense school of **pelagic fish**.
- The bottom of the net is closed by hauling a **purse line**, a process known as "pursing".
- The nets can exceed **2,000 metres in length** and reach about **200 metres in depth**, depending on the vessel, mesh size and target species.
- **Pelagic fish** live in the open-water column, generally away from the seabed, and may occur at depths of up to about **600 feet**.

Environmental and Economic Dimensions

- Purse-seine fishing is considered efficient because it can harvest **large, dense schools of fish** in a single operation.
- Since the gear generally does not touch the seabed, it can cause **less seabed disturbance** and may have

Governance and Federalism

- **Fisheries** is a **State List** subject, making States responsible for marine fisheries management within their territorial waters.
- States have implemented purse-seine restrictions up to **12 nautical miles** in **Tamil Nadu, Kerala, Puducherry, Odisha, Dadra and Nagar Haveli and Daman and Diu, and Andaman and Nicobar Islands**.

relatively low bycatch in suitable conditions. ➤ The method can also target fish congregating around Fish Aggregating Devices (FADs). ➤ Concerns arise over the depletion of small pelagic species such as sardines, mackerel, anchovies and trevally, particularly along India's western coast.	➤ The Supreme Court's observation highlights the need for Centre–State coordination in regulating fishing activities across different maritime jurisdictions.
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Polychaete Worms

 Mongabay India

A world of bristles beneath the waves

Polychaete worms, also known as bristle worms, occur in almost all marine habitats, with some even adapting to low-salinity and inland water...



Why in News: The rapid expansion of **shrimp aquaculture** has increased large-scale harvesting of wild **polychaete worms**, raising ecological concerns.

Biological Profile

- **Polychaetes** are a diverse group of **marine annelids**, commonly known as **bristle worms**.
- The name *Polychaeta* means “**many hairs**”, referring to the numerous bristles or **chaetae** on their bodies.
- Each body segment generally bears a pair of **parapodia**, which assist in crawling, swimming and burrowing.
- Their body contains a **coelom**, a fluid-filled internal cavity surrounded by muscle layers.

Ecological Significance

- Polychaetes act as **detritivores**, contributing to the decomposition of organic matter.
- They contribute to **oxygen transport and redistribution** within marine sediments.
- Their large-scale harvesting for aquaculture feed can therefore have implications for **marine sediment ecosystems and food webs**.

Habitat and Adaptability

- Polychaetes occur across diverse marine environments, including **estuaries, mangroves, sandy shores, coral reefs, seagrass beds, continental shelves and deeper waters**.
- Their high ecological adaptability and sensitivity to environmental changes make them useful **bioindicators of ecosystem health**.
- Different species may reproduce **sexually or asexually**, while some are **hermaphroditic**.

Uparkot Fort

Why in News: Uparkot Fort in Junagadh remained closed to visitors after a **leopard** was spotted within the historic premises.

 News On AIR

Gujarat Govt. Approves ₹28.68 Cr. Projects to Boost Spiritual and Heritage Tourism

In a major boost to Gujarat's spiritual and heritage tourism, the state government has approved development projects worth over 28.68 crore...



Historical and Geographical Setting

- **Uparkot Fort** is located in **Junagadh, Gujarat**, at the foothills of **Girnar Hill**.
- It is traditionally believed to have been built in **319 BCE** by **Mauryan emperor Chandragupta**, although the fort was subsequently expanded several times.
- The fort was earlier known as **Revath Nagri** and is believed to have remained inhabited for more than **2,000 years**.
- It reportedly faced **16 sieges**, with legend associating it with a prolonged **12-year siege**.

Water and Defence Features

- The fort contains the **Nawabi Lake** and a large moat reportedly reaching about **300 feet in depth**.
- Its combination of **Buddhist, Hindu, Jain and Islamic architectural elements** reflects the layered cultural history of Junagadh.

Architectural and Cultural Features

- The fort covers about **70 acres**, with walls reaching over **20 metres** in height at some places.

- Its premises contain **Buddhist rock-cut caves** dating to around the **2nd century BCE**, along with carvings and inscriptions.
- The complex also contains the **15th-century Jama Masjid**, the **Nuri Shah tomb**, temples and the **Adi Chadi and Navghan stepwells**.
- A large cannon, reportedly manufactured in **Egypt in 1531**, is also located within the fort.

Pacific Islands Forum

 The Economist

The Pacific Islands Forum fizzles as China flexes its muscles

China's attempts to disrupt the Pacific Islands Forum meeting in Palau, where Taiwan's diplomat attended, included threats and suspected...



Why in News: The **Pacific Islands Forum (PIF)** has remained an important regional platform for cooperation on security, climate change, ocean governance and sustainable development in the Pacific.

Institutional Profile

- The **Pacific Islands Forum** was established in **1971** and is the region's principal **political and economic organisation**.
- It has **18 members** comprising Pacific Island countries and territories along with **Australia and New Zealand**.
- Its headquarters is located in **Suva, Fiji**.
- The annual Forum meeting is chaired by the **Head of Government of the host country** until the next meeting.

Regional Priorities

- PIF focuses on **regional security, economic development, climate change and ocean governance**.
- It promotes regional cooperation under the **2050 Strategy for the Blue Pacific Continent**.
- Its stated vision is to build a resilient Pacific region based on **peace, harmony, security, social inclusion and prosperity**.

Membership Facts

- Members include **Fiji, Australia, New Zealand, Papua New Guinea, Samoa, Tonga, Tuvalu, Vanuatu, Kiribati, Palau, Nauru (Naoero), Marshall Islands and Micronesia**.
- Its membership also includes **Cook Islands, Niue, French Polynesia and New Caledonia**, making it broader than a grouping of sovereign island states alone.

Districts as Export Hubs Initiative

 News On AIR

Govt expands 'Districts as Export Hubs' initiative to boost India's export growth

To enable every district to contribute to India's export growth by leveraging its unique strengths, the Government has brought in a...



Why in News: The **Districts as Export Hubs (DEH) Initiative** is shifting India's export strategy towards leveraging the products and services of individual districts and connecting local producers with global markets.

Institutional Framework

- The initiative is led by the **Directorate General of Foreign Trade (DGFT), Department of Commerce**.
- The **Department of Commerce** provides overall policy direction, while **DGFT** coordinates implementation and monitors progress.

District-Level Planning

- A key function of DEPCs is preparing **District Export Action Plans (DEAPs)**.
- DEAPs identify products and services with export potential and assess **infrastructure, logistics and export-related bottlenecks**.
- The initiative seeks to make districts active stakeholders in expanding India's **export base** rather than concentrating exports in established industrial centres.

- **State Export Promotion Committees (SEPCs)** guide implementation and promote inter-departmental convergence at the State level.
- **District Export Promotion Committees (DEPCs)** identify local export opportunities and address district-level bottlenecks.

Scale and Current Phase

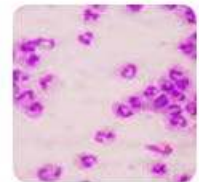
- Export potential has been identified across **734 districts** covering sectors such as **agriculture, toys and GI products**.
- From **1 June 2026**, the initiative adopted a phased, outcome-oriented approach covering districts across **27 States and Union Territories**.
- Implementation is supported by **24 DGFT regional authorities and 11 partner agencies**.

Sepsis

C&EN

New method brings sepsis diagnosis down from days to hours

Sepsis is deadly. According to the World Health Organization, sepsis infections are responsible for about one in five of all deaths...



Why in News: A recent global study highlighted the rising problem of **antimicrobial resistance (AMR) in children**, which can undermine treatment of life-threatening infections such as **sepsis and pneumonia**.

Pathophysiology

- **Sepsis** is a life-threatening condition in which the body mounts an extreme response to an infection, resulting in **organ dysfunction**.
- The dysregulated immune response can damage the body's own **tissues and organs**.
- Sepsis can progress to **septic shock, multiple organ failure and death**.

Clinical Features

- Common symptoms include **rapid breathing, rapid heart rate, fever, shivering, confusion, severe pain and clammy skin**.
- **Septic shock** is a severe form of sepsis characterised by dangerously low blood pressure and potentially widespread organ failure.

Causes and Risk Factors

- Sepsis most commonly results from **bacterial infections**, but viruses, fungi and parasites can also trigger it.
- Common sources of infection include the **lungs, gastrointestinal system, kidneys and urinary bladder**.
- Vulnerable groups include **older people, very young children, pregnant women and people with underlying health problems**.

Treatment and AMR Linkage

- Early treatment generally involves **appropriate antibiotics, intravenous fluids, oxygen and treatment of the underlying infection**.
- Severe cases may require **blood-pressure-supporting medicines, dialysis, mechanical ventilation or surgery**.
- Rising **antimicrobial resistance** can make infections harder to treat and threatens the effectiveness of antibiotics used against sepsis.

Other Important News of the day

Places in News

Ponnaniyar Dam

 The New Indian Express

Solar-powered motors may pump Cauvery water to Ponnaniyar dam

TIRUCHY: The long-pending demand to divert surplus Cauvery water from Mayanur Barrage into Ponnaniyar Dam and Kannuthu Dam in Manapparai...



Why in News: A long-pending proposal to divert surplus **Cauvery water from Mayanur Barrage** to the Ponnaniyar Dam is likely to benefit farmers in the region.

Location and River System

- **Ponnaniyar Dam** is located near **Pooncholai village** in the **Kadavur hills of Karur district, Tamil Nadu**.

Regional Ecological Significance

- The surrounding forests support wildlife including **elephants, gaurs, sloth bears and sambar deer**.
- The area also supports diverse **bird and reptile species**, linking water-resource management with local biodiversity.

	➤ The dam was constructed in 1976 between the Perumalmalai and Semmalai mountains. ➤ It is built across the Ponnaniyar River, a tributary of the Kaveri River. ➤ The dam's downstream region extends into Tiruchirappalli district. Engineering and Water Storage ➤ It is a concrete gravity dam measuring about 59 metres in height and 310 metres in length. ➤ Its catchment area covers approximately 33.60 square miles, while its storage capacity is about 120 million cubic feet (mcft). ➤ The primary purpose of the reservoir is irrigation, with water also supporting drinking-water needs of nearby settlements.
Environment	Fulvous Whistling Duck TH The Hindu <u>Rare Fulvous whistling duck spotted in Keralam's Malappuram</u> Rare Fulvous whistling ducks spotted in Malappuram's Cherumukku wetlands, marking the first sighting of this species in the area.  Why in News: More than 30 Fulvous Whistling Ducks were recently spotted at the Venjali wetlands in Malappuram, Kerala, where the species is rarely recorded. Identification and Distribution ➤ The Fulvous Whistling Duck, also called the Fulvous Tree Duck, has the scientific name <i>Dendrocygna bicolor</i>. ➤ It is a large, goose-like waterfowl with a long neck and long legs. ➤ It is widely distributed across tropical and subtropical regions of the Americas, Africa and Asia. Conservation Status ➤ The species is classified as Least Concern (LC) under the IUCN Red List. ➤ It is known for its characteristic whistling calls, particularly during flight.

	➤ In India, it is more commonly recorded in wetlands of Assam and other northeastern States. Habitat and Physical Features ➤ It prefers shallow wetlands with abundant vegetation, including freshwater lakes, marshes, swamps, flooded grasslands and wet rice fields. ➤ It measures approximately 45–55 cm in length and weighs around 500–1,000 grams. ➤ It has predominantly reddish-brown plumage, whitish upper tail-coverts and whitish flank stripes. ➤ A distinctive crescent-shaped white band across the black tail is visible during flight.
Defence	Khagantak-243 Why in News: The Indian Air Force (IAF) successfully conducted a drop trial of the indigenously developed Long Range Glide Bomb (LRGB), Khagantak-243. Technical Profile ➤ Khagantak-243 is a 300-kg-class airborne long-range stand-off precision-guided glide bomb. ➤ It is jointly developed by Bharat Electronics Limited (BEL) and JSR Dynamics. ➤ The weapon is designed to be released from a fighter aircraft and glide towards its target without requiring the aircraft to fly directly over the target. ➤ It has a reported range of 144–180 km when released from an altitude of 12 km at Mach 0.8. 

	Design and Operational Advantage ➤ The bomb has a cylindrical body, swivel-type mid-body glide wings and five aft control surfaces for navigation and control. ➤ Stand-off capability enables aircraft to engage targets from considerable distances while reducing exposure to certain enemy air-defence systems. ➤ Indigenous development of such precision-guided weapons supports India's defence indigenisation and long-range strike capability.
Science and Technology	Cold Allodynia  The Indian Express <u>Chemotherapy can induce cold pains. How 'brain circuit' causing it was found</u> Cold allodynia causes pain from ordinary cold temperatures, and researchers have identified a brain circuit linked to the chemotherapy side...  Why in News: Researchers have identified a brain circuit associated with cold allodynia, a painful side effect that can occur following certain chemotherapy treatments. Clinical Characteristics ➤ Cold allodynia occurs when normally harmless exposure to cold produces pain or intense burning/freezing sensations. ➤ Symptoms may include sharp or burning pain, tingling and pins-and-needles sensations. ➤ It represents an abnormal response of the nervous system to normally non-painful cold stimuli. Major Causes ➤ Chemotherapy, particularly treatment involving oxaliplatin, can cause painful cold sensitivity through nerve dysfunction. ➤ Diabetes can damage peripheral nerves and contribute to neuropathic symptoms.

- **Infections, autoimmune disorders and vitamin B12 deficiency** can also affect nerves and contribute to neuropathic pain.

Management

- Treatment may include neuropathic-pain medicines such as **pregabalin, gabapentin or duloxetine** under medical supervision.
- **Lidocaine or capsaicin-based topical treatments** and supportive measures to avoid excessive cold may help manage symptoms.
- **Transcutaneous electrical nerve stimulation (TENS)** may be used as an additional approach for controlling neuropathic pain.

Uttar Pradesh in News

Uttar Pradesh Launches Development Projects in Deoria and Gorakhpur

ANI News

"Journey of good governance will gain new momentum": UP CM unveils projects worth Rs 435 crore in Deoria, Gorakhpur

Lucknow (Uttar Pradesh) [India], August 29 (ANI): Uttar Pradesh Chief Minister Yogi Adityanath on Saturday launched and laid the foundation...



Why in News: **Uttar Pradesh Chief Minister Yogi Adityanath** launched and laid foundation stones for development and public welfare projects worth over **₹435 crore** across **Deoria and Gorakhpur** districts.

Developmental Initiatives

- **Deoria** received **80 development works** worth **₹305 crore** in the **Salempur and Bhatpar Rani Assembly constituencies**.
- **Gorakhpur** saw the inauguration or foundation laying of **170 projects worth over ₹130 crore**.
- The **Kalyan Mandapam at Basharatpur, Rapti Nagar, Gorakhpur** was dedicated to public service.

Women's Empowerment Framework

- Uttar Pradesh has prepared an action plan covering women's development from **birth and education to employment and entrepreneurship**.
- The approach seeks to promote **women's economic participation and self-reliance** alongside welfare measures.



Women-Centric Welfare Measures

- The State highlighted initiatives focused on **women's safety, dignity and self-reliance**.
- Under the **Lokmata Ahilyabai Matrushakti Yatra**, **women aged 60 years and above** are provided **free bus travel** across Uttar Pradesh.
- The scheme seeks to improve **mobility and dignified access to public transport** for elderly women.