NEXT IAS

DAILY CURRENT AFFAIRS (DCA)

Time: 45 Min

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Table of Content

SC RULING ON STRAY DOGS

Context

- Recently, the Supreme Court of India directed the Delhi government and authorities of Noida, Gurgaon, and Ghaziabad to capture and relocate stray dogs to shelters, calling the situation 'grim'.
  - It stressed that 'infants and young children, at any cost, should not fall prey to rabies'.

Stray Dog Problem in India

- India is home to over 60 million stray dogs, accounting for 37% of the global stray dog population. Dog bites occur every 10 seconds in India, totaling over 3 million annually.
  - Rabies claims two lives every three hours, making **India the global epicenter for rabies-related deaths.**
- Infants and elderly citizens are increasingly vulnerable, with fatal attacks reported in **Delhi, Telangana, and Punjab.**
- Stray dogs contribute significant **health hazards.**
- Even the rabies elimination goal (by 2030) is unattainable without effective stray control.

Root Causes: A Complex Web

- **Pet Owner:** Pet ownership is rising rapidly, with 30 million pet dogs recorded in 2024 and is growing at 10–15% annually.
  - A significant portion of the problem stems from irresponsible pet ownership like abandonment of pets, unneutered pets, and lack of identification.
- **Issue of Proxy Petting:** Feeding strays on streets—often by well-meaning citizens—makes dogs territorial and aggressive.
  - It mirrors the issue seen with monkeys in urban India, emboldening animals and increasing attacks on non-feeders.
- Municipal laws mandate sterilization and sheltering, but implementation is **patchy and underfunded.**

Earlier Attempts to Control Stray Populations

- **Lethal Measures:** Past methods like electrocution, poisoning, shooting—proved both inhumane and ineffective.
  - Reduced competition for food led to increased breeding among survivors.
- **Sterilisation Drives:** The **Animal Birth Control (ABC) programme**, introduced in 1992 and formalised in 2001, requires sterilising at least two-thirds of a canine population in a short window to work.
  - No Indian city has consistently met this target, and pet dogs breeding with strays undo much of the progress.

Legal and Ethical Dilemmas

- **Protection for Feeders:** Citizens feeding stray dogs are protected under **Article 51A(g) of the Constitution,** which encourages compassion for living creatures.
- India's legal frameworks: Like **Prevention of Cruelty to Animals (PCA) Act (1960), Animal Birth Control (ABC) (2001, updated in 2023), and Municipal Acts** aim to balance animal welfare with public safety. However, contradictions persist:
  - Municipalities are restricted from euthanizing strays unless they are mortally ill.
  - Stray dogs are **now legally recognized as 'community animals',** complicating removal efforts.
- **Right to Life vs. Right to Safety:** The Supreme Court has repeatedly emphasized that stray dogs have a right to live, cautioning against indiscriminate culling. It raises difficult questions, like:
  - Can the right to life of stray animals override the right to safe public spaces, especially for children and the elderly?
  - Is it ethical to allow animals to suffer homelessness and disease on the streets in the name of compassion?

Toward Humane and Balanced Solutions

- Mandatory pet registration, microchipping and sterilization to prevent abandonment and uncontrolled breeding.
- Designated feeding zones and shelters to reduce territorial aggression.
- Public awareness campaigns to educate citizens on dog behavior and responsible interaction.
  - Instilling empathy and responsibility in young citizens can create a more humane future.
- Accountability for pet owners and feeders, ensuring they contribute to safety and welfare.
- **National Task Force** to coordinate efforts across states, as proposed by MP Karti Chidambaram.
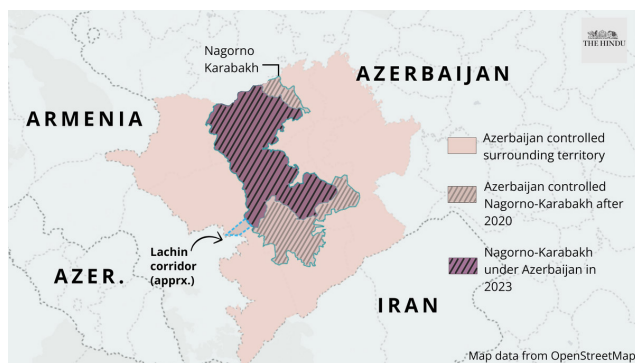
Source: IE

ARMENIA-AZERBAIJAN PEACE TREATY

In News

- Armenia and Azerbaijan signed a historic U.S.-brokered peace agreement at the White House, ending decades of **conflict over Nagorno-Karabakh**.

Nagorno-Karabakh

- It is located within the international borders of Azerbaijan.

- It is in the South Caucasus region between eastern Europe and western Asia, spanning the southern part of the Caucasus mountains that roughly includes modern-day **Armenia, Azerbaijan, and Georgia.**

  - The Armenians are Christians, while Azeris are Muslims.

What is the Dispute?

- **Nagorno-Karabakh, historically part of the Armenian Kingdom,** was ruled by empires like the Ottomans, Persians, and Russians.

  - Tsarist Russia controlled the South Caucasus during the 19th century, but its influence declined after the 1917 Russian Revolution.

- The Armenia-Azerbaijan conflict dates back nearly a century, originating during **World War I when Ottoman and Azeri** forces targeted ethnic **Armenians in the South Caucasus.**

- Nagorno-Karabakh, a predominantly Armenian region within Azerbaijan, became a key flashpoint, rooted in ethnic, religious, and geopolitical tensions.

- As the Soviet Union collapsed in 1991, **Armenians in Nagorno-Karabakh declared independence**, leading to a war that lasted until 1994 and caused around 30,000 deaths.

  - A Russia-brokered ceasefire followed, but borders remained unsettled despite international peace efforts.

- In **2020**, Azerbaijan launched a successful offensive, regaining surrounding territories with support from Turkey and Pakistan.

  - Another offensive in 2023 allowed **Azerbaijan to claim full control.**

Key Outcomes of recent deal

- **Cessation of Hostilities:** The peace deal ends nearly 35 years of tensions and paves the way for regional stability and development.

- **Trump Route for International Peace and Prosperity (TRIPP):** It includes reopening key transport routes and creating the "**Trump Route for International Peace and Prosperity"** to link Azerbaijan with its Nakhchivan exclave via Armenia.

- **U.S. Exclusive Development Rights:** The U.S. won't send soldiers, but it will have the exclusive right to develop and manage the route, likely with American companies involved.

India's Strategic Interest

- **Relations with Armenia :** India has deep historical and cultural ties with Armenia, dating back millennia.

  - The two countries share strong modern relations, including a $250 million defence deal in 2022.

  - Armenia also supports India's positions on Kashmir and the UN Security Council.

- **Connectivity Interest:** Strategically, the South Caucasus region, including Armenia and Azerbaijan, is key to India's connectivity goals with Russia and Europe via the **International North South Transport Corridor (INSTC)**, which India hopes to strengthen through Chabahar Port.

Source :LM

INDIA-SRI LANKA 8TH HIGH-LEVEL MEETING ON MARITIME PARTNERSHIP

Context

- The 8th High-Level Meeting (HLM) between the **Indian Coast Guard (ICG) and Sri Lanka Coast Guard (SLCG)** was held in New Delhi.

About

- The discussions centered on **strengthening cooperative engagements** in the fields of marine pollution response, maritime search & rescue, and maritime law enforcement, along

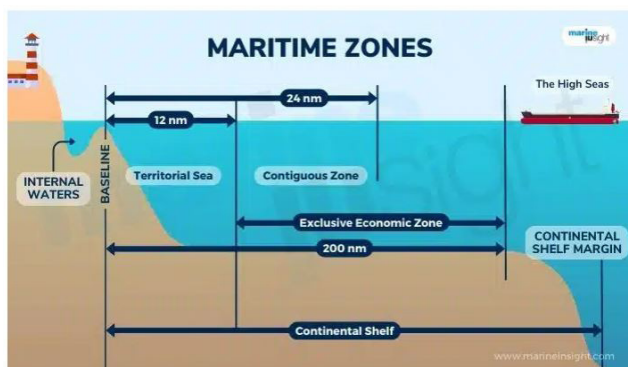with enhanced capacity building & technical assistance initiatives.

- **Both sides reaffirmed their commitment to work** closely in addressing contemporary maritime challenges, ensuring safety, security, and environmental stewardship in the shared maritime domain.

Indian Coast Guard (ICG)

- ICG is a maritime law enforcement and search and rescue agency of India with jurisdiction over its territorial waters including its contiguous zone and exclusive economic zone.
- **Established** in 1977 by the Coast Guard Act, 1978 of the Parliament of India.
- **Parent Agency:** Ministry of Defence.
- **Headquarters:** New Delhi.
- **Head:** Director General Indian Coast Guard (DGICG).

India's Maritime Zone

- India's maritime zone refers to the **maritime boundaries and areas under its jurisdiction** in the surrounding seas and oceans.
- India has a **coastline of 7,517 Km** including island territories.
- **Territorial Waters (12 Nautical Miles):** Within this zone, India exercises **full sovereignty,** and it includes the country's coastal areas and ports.
- **Contiguous Zone (24 Nautical Miles):** In this zone, India can take action to prevent or punish infringements on customs, fiscal, immigration, or sanitary laws within its territory or territorial sea.
- **Exclusive Economic Zone (EEZ):** The EEZ extends up to **200 nautical miles** from the baseline.
    - Within this zone, India has the exclusive rights for exploring, exploiting, conserving, and managing natural resources, such as fisheries and hydrocarbons.
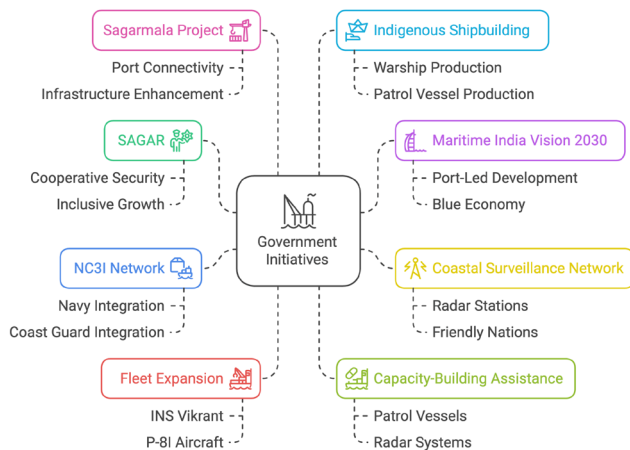

Maritime Security

- It involves **protecting the nation's sovereignty** from threats arising from the oceans and seas.
    - Threats include protecting coastal areas, safeguarding the available ocean resources such as fish, offshore oil and gas wells, port facilities, etc.
    - It also means maintaining freedom at sea for movement of our ships and facilitating and protecting trade.
- **Following are the elements of maritime security:**
    - International and national peace and security;
    - Protection of sea lanes of communication Sovereignty, territorial integrity and political independence;
    - Protection from crime at sea;
    - Access and security to the resources at sea;
    - Security of seafarers and fishermen;
    - Environmental protection.

Need to Strengthen Maritime Security in IOR

- **Trade & energy lifelines:** More than 80 % of the world's seaborne oil trade goes through the Indian Ocean choke points - 40 % passes through the Strait of Hormuz, 35 % through the Strait of Malacca and 8 % through the Bab el-Mandab Strait.
    - Disruptions here could severely impact India's economy.
- **Geopolitical contestation:** Major-power activity (notably China's expanding presence and infrastructure investments) alters the strategic balance.
- **Fragmented maritime governance:** Many littoral states lack capacity for surveillance, law enforcement, and HADR (humanitarian & disaster response).
- **Diverse asymmetric threats:** Illegal, unregulated and unreported (IUU) fishing, trafficking, piracy resurgence and attacks on commercial shipping complicate security.
- **Blue Economy Potential:** The IOR offers opportunities in fisheries, seabed minerals, renewable energy, and tourism—requiring secure seas for sustainable exploitation.

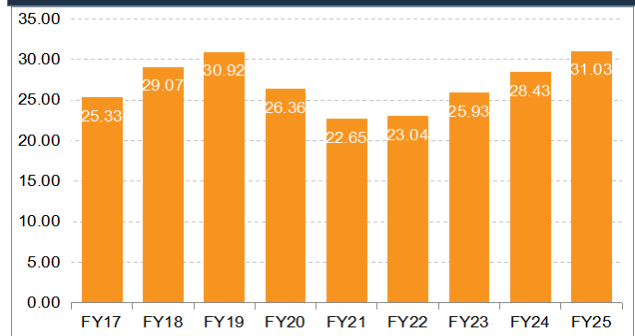**Government Initiatives for Maritime Security**

Conclusion

- India's maritime security initiatives reflect a blend of military capability, infrastructure readiness, regional partnerships, and legal-institutional frameworks.

- As maritime threats evolve, India's approach—anchored in SAGAR—aims to secure sea lanes, protect coastal communities, and maintain a rules-based order in the IOR.

Source: PIB

INDIA BECOMES WORLD'S THIRD-LARGEST AUTOMOBILE MARKET

Context

- The Union Minister for Road Transport and Highways has announced that India has emerged as the third-largest automobile industry globally, with a market size of about **₹22 lakh crore.**

About the Automobile Industry

- **Global Scenario: The United States** has the largest automobile industry in the world, valued at **₹78 lakh crore.**
  - **China ranks second** with an industry size of **₹49 lakh crore.**

- **Indian Scenario:** India's automotive industry is a cornerstone of the nation's manufacturing and economic growth, contributing around **7.1%** to India's **Gross Domestic Product (GDP)** and **49%** to manufacturing GDP.
  - Two-wheelers and passenger vehicles dominate the domestic market.
  - In FY25, two-wheelers accounted for **76.57%** of total market share, while passenger cars accounted for **16.80%.**

Number of Automobiles Produced in India (in million)

Source: SIAM

Government Initiatives Driving Growth

- **Production Linked Incentive (PLI) Scheme for Auto and ACC Batteries:** With a total allocation of **₹44,038 crore** the initiative aims to boost the domestic manufacturing of advanced automotive technologies, including EVs, hydrogen fuel cell vehicles, and advanced battery storage solutions.

- **FAME-II Scheme:** The scheme provides subsidies for electric and hybrid vehicles and charging infrastructure, supporting the adoption of eco-friendly vehicles and contributing to cleaner transportation.

- **Vehicle Scrappage Policy:** Targets phasing out vehicles older than 15 years to cut emissions and stimulate replacement demand.

- **Make in India and FDI Policy:** The policies, particularly the **100% FDI** allowance in the auto sector, have attracted significant investments from both global and domestic players, boosting manufacturing and employment.

What are the Challenges?

- **Heavy dependence on imports** for high-value components such as semiconductors and EV batteries.

- **Limited share of only about 3%** in the globally traded auto components market, with low penetration in high-precision segments.
- **Inadequate infrastructure for EV** charging and hydrogen refuelling stations.
- **Environmental Challenges:** Rising vehicle numbers leading to increased carbon emissions and environmental concerns.

Way Ahead

- **Increase localisation** in high-technology automotive components to reduce import dependence.
- **Expand investments in EV charging networks** and hydrogen fuel infrastructure.
- **Enhance research and development** and provide skill training for advanced manufacturing capabilities.
- **Promote recycling**, emission control measures, and adoption of **green mobility solutions** for sustainable growth.

Source: AIR

LANDMARK STUDY OFFERS NEW INSIGHTS INTO WHAT PROTECTS AGAINST DENGUE

Context

- A novel study has revealed important insights into **developing strong immunity against DENV, which is otherwise quite complex.**
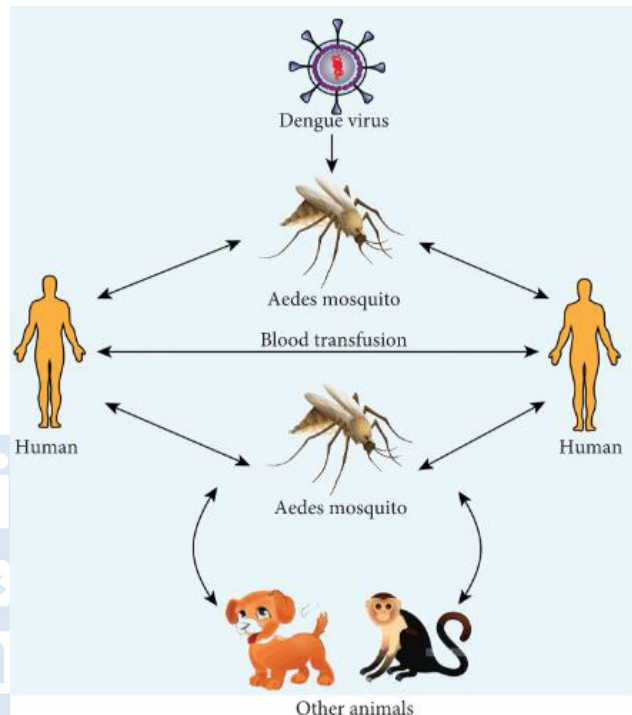
About

- Researchers from the US and Philippines have identified specific antibodies, known as **envelope dimer epitope (EDE)-like antibodies**, as the key for building broad, **cross-serotype immunity** following natural infection or vaccination.
- The findings represent a **significant step** forward in understanding dengue immunity and could lead to more effective therapeutics.

About Dengue

- Dengue is a **mosquito-borne viral disease** caused by the **Dengue virus (DENV)**, which has **four serotypes** (DENV-1, DENV-2, DENV-3, and DENV-4).
  - It is transmitted primarily by the **Aedes aegypti mosquito.**
- **Spread:** The virus **does not spread person-to-person directly.**

- A mosquito becomes infected by biting a person already infected with the virus, and then can **transmit the virus to another person through a subsequent bite.**
- **Symptoms:** Fever, severe headache, muscle and joint pains, nausea and vomiting, pain behind the eyes, and rashes.
  - In severe cases, the infection can lead to internal bleeding, and if not managed properly, even death.

- **Treatment:** There is no specific treatment for dengue. Early detection of disease progression with proper medical care lowers fatality rates of severe dengue to below 1%.
- **Vaccine:** Dengvaxia (CYD-TDV) – approved in some countries, recommended for individuals aged 9-16 with a history of dengue infection.

Dengue & Vaccine Challenges

- **Global burden:** It is the most common vector-borne viral disease; half the world's population is at risk, especially in Southeast Asia, Africa, Americas.
  - **Dengue fever** is **one of the top 10 threats** to global health, according to the World Health Organisation (WHO).
- **Dengue in India:** India accounts for a large fraction of global dengue cases; 2.3 lakh cases and 297 deaths were reported in 2024.
- **Vaccine challenge:** Primary immunity after first infection can worsen disease on second infection with different serotypes.

- Severe dengue cases (requiring hospitalization) occur after second infections.
- True protection (secondary immunity) develops only after infection with ≥2 serotypes.

Significance of Study

- EDE-like antibodies could be a biomarker for protective immunity.
- Future vaccines may aim to specifically induce high EDE-like antibody levels.
- Could improve vaccine safety and cross-serotype protection.

Source: TH

NEWS IN SHORT

INDIA SENDS 5 TONNES OF COWPEA SEEDS TO FIJI

In News

- India sent 5 metric tonnes of **black-eyed cowpea** seeds to Fiji as **humanitarian aid to support agriculture**, under its Act East Policy.

Fiji

© Encyclopædia Britannica, Inc.

- It is an island country in the South Pacific Ocean, surrounding the Koro Sea, about 2,100 km north of Auckland, New Zealand.
- It consists of about 330 islands and 500 smaller islets and reefs.
    - The capital, Suva.
- The largest islands, Viti Levu and Vanua Levu, are volcanic, while smaller ones are coral-based.
- The highest point is **Mount Tomaniivi (1,324 m)**.

Source: AIR

PERITO MORENO GLACIER

In News

- Recently, scientists warned of accelerated melting in **Argentina's Perito Moreno Glacier** due to temperature rise.

Perito Moreno Glacier('White Giant')

- It is located near the city of El Calafate in the Argentine province of Santa Cruz, and comes under the Los Glaciares National Park which is a **UNESCO World Heritage Site.**
- It is a 30 km-long glacier located in the **Andes mountain range**.
- It was formed around 18,000 years ago during the last Ice Age.
- It is a major freshwater source and a tourist attraction, known for dramatic ice calving events since 1917.

Source: IE

NOMINATIONS TO J&K ASSEMBLY OUTSIDE THE REALM OF ELECTED GOVERNMENT

Context

- The Union Ministry of Home Affairs has informed the Jammu and Kashmir High Court that the Union Territory's Lieutenant-Governor can nominate five members to the J&K Legislative Assembly without the state government's "aid and advice".
    - Critics say this reduces the role of any future elected J&K government, giving the Centre more control.

About

- The **Jammu and Kashmir Reorganisation Act, 2019,** bifurcated the erstwhile state into two Union Territories (J&K and Ladakh) and outlined legislative structure for J&K.
- **The 2023 amendment** to act added **Sections 15, 15A, 15B** to empower the LG to nominate;
    - 2 Kashmiri migrants (including 1 woman)
    - 1 member from the Pakistan-occupied Jammu & Kashmir (PoJK) community
    - 2 women, if not adequately represented.
- The **amendment** increased Assembly strength from 114 to 119 (excluding 24 seats reserved for PoJK areas).

Source: TH

ULCHI FREEDOM SHIELD

Context

- **South Korea and the United States** will conduct major joint military drills under **Ulchi Freedom Shield.**

About

- It is an **annual exercise** designed to reinforce readiness and cooperation across all domains to **defend the Korean Peninsula and the broader region.**

- **These exercises trace back to the 1960s** (Taeguk Exercise) and have evolved through various iterations including Ulchi-Focus Lens and, in 2008, were renamed Ulchi-Freedom Guardian.

- This year's drill will test upgraded responses to heightened North Korean nuclear threats as well as cutting-edge technologies used in modern wars.

Source: TH

ETALIN HYDROELECTRIC PROJECT

Context

- An expert panel of the Union Environment Ministry has recommended **environmental clearance for the 3,087 MW Etalin hydroelectric project.**

About

- Etalin is a large **run-of-river project** on the **Dri and Tangon Rivers**.

- The project is located in **Arunachal Pradesh's Dibang valley**.
    - The Dri River, after meeting Mathun, flows downstream and is joined by Tangon near Etalin village, where it is called **Dibang River.**

- The project involves construction of **concrete gravity dams to divert water through two separate waterway systems.**

- The project will be developed by the Satluj Jal Vidyut Nigam (SJVN) Ltd.

Source: IE

ORBITING CARBON OBSERVATORIES (OCO) PROGRAM

In News

- The Trump administration reportedly asked NASA to shut down **Orbiting Carbon Observatories.**

Orbiting Carbon Observatory (OCO)

- OCOs are a series of dedicated **Earth remote sensing satellite**s that were designed specifically to **observe atmospheric carbon dioxide (CO_2)** from space in order to better understand the characteristics of climate change.

- **Timeline:** The first mission, OCO (2009), failed due to a launch vehicle malfunction.
    - A replacement, OCO-2, launched in 2014, measures CO levels and tracks photosynthesis in crops.
    - In 2019, OCO-3 was sent to the ISS, offering varied observation times compared to OCO-2's fixed daily schedule, thus enhancing data collection on CO sources, sinks, and crop health.

- **Relevance** : The OCO missions are crucial for monitoring atmospheric CO globally, helping scientists understand climate change more accurately.
    - They revealed unexpected insights, like the key role of boreal forests in CO absorption, and showed how forests can become carbon emitters.
    - OCO data also aid in crop monitoring, drought tracking, and yield forecasting, benefiting farmers and policymakers alike.

Source :IE

OTTERS

Context

- **Otters** are set to make a comeback at the **National Zoological Park in Delhi after more than 20 years.**
    - The last otter at the zoo died in 2004.

About Otters

- Otters are members of the **mammalian family called Mustelidae.**

- **Otters** are mainly active around dawn and dusk, being, what is known as, **crepuscular**.

- **Distribution:** They are found the world over, except in **Australia, New Zealand, Madagascar, and other oceanic islands.**
  - India is home to **3 of the 13 species** of otters found worldwide, these are - Eurasian Otter (Lutra lutra); Smooth-coated Otter (Lutra perspicillata) and Small-clawed otter (Aonyx cinereus).
- **Habitat:** Rivers, lakes, coastal areas, and kelp forests.
- **Diet:** Carnivorous—eat fish, crustaceans, molluscs, and sometimes small mammals or birds.
- Sea otters are one of the **few non-human animals to use tools**—they crack open shellfish with rocks.
- **Threats:** Habitat loss, pollution, and hunting for their fur.
- **IUCN Status:**
  - Smooth-coated otter (Lutrogale perspicillata): **Vulnerable**.
  - Asian Small-Clawed Otter (Aonyx cinereus): **Near threatened.**
  - Eurasian Otter (Lutra lutra): **Near Threatened.**

Source: IE

PATHANEER

Context

- In Tamil Nadu's Thoothukudi district, palmyra climbers harvest pathaneer.

About Pathaneer

- **Pathaneer,** also known as palm nectar, is a traditional, refreshing, and sweet beverage made from the sap of palm trees.
  - The sap is processed into **karupatti (palm jaggery)** and **panangkarkandu (palm candy).**
- It's a popular drink in **South India, Sri Lanka**, and other parts of the world.
- **Extraction:** Pathaneer is typically extracted from the unopened spadices (flower stalks) of **coconut or palmyra palms.**
- The sap is collected in earthen pots, often with a bit of lime or calcium carbonate added to prevent fermentation.

Source: TH