



Daily Current Affairs



To The Point by Dhananjay Gautam

Table Of Content 08 April 2025

1. New Pamban Rail Bridge Inaugurated
2. Diego Garcia & The Chagos Archipelago
3. SC Orders Probe into Forest and Wildlife Law Violations in Agasthyamalai Landscape, Tamil Nadu
4. Cape Town Convention, 2001 & India's Legislative Response
5. Seaweed Farming in India
6. GI Tag Recognition for Warangal Chapata Chilli & Kannadippaya

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1 New Pamban Rail Bridge Inaugurated: A Leap Forward in Coastal Connectivity

Context: In a significant stride toward enhancing southern India's transportation infrastructure, **Prime Minister Narendra Modi** inaugurated the **New Pamban Rail Bridge**, connecting **Rameswaram Island** to **Ramanathapuram** in **Tamil Nadu**. Built at a cost of ₹531 crore by **Rail Vikas Nigam Limited (RVNL)**, the bridge introduces **state-of-the-art engineering** to one of India's most spiritually significant locations.



Old Pamban Bridge: An Engineering Icon:

Constructed in **1913**, the **Old Pamban Bridge** was a **2.05-kilometre marvel**, linking the mainland to Rameswaram for over **70 years**. It featured a **Scherzer Rolling Lift Span**, patented by **American engineer William Donald Scherzer**, allowing ships to pass underneath. Despite being severely damaged in the **1964 cyclone**, the bridge was **quickly restored**, standing as a symbol of resilience and innovation.

Upgrades Over Time:

- Converted to **broad-gauge** in **2007**.
- Fitted with **structural reinforcements** and **sensor monitoring** by **2020**.
- Declared **beyond repair** in **2022**, leading to the suspension of rail services.

A Glimpse into the Past: Indo-Ceylon Rail Link Dreams

The idea of connecting **India and Sri Lanka** via **Adam's Bridge** was explored as early as **1876**, with detailed proposals emerging in **1894–95**. However, due to **high costs** and **low expected traffic**, the plans were shelved. By **1906**, the focus shifted to building the Pamban Bridge to **boost the tobacco trade**, especially between **India and Ceylon (now Sri Lanka)**.

The Scherzer Lift Mechanism: Genius in Motion

The **Scherzer Rolling Lift Span** was one of the world's early marvels in moveable bridge engineering. It combined the principles of a rolling lift and bascule bridge, allowing smooth and quick elevation for **ship navigation**. This design has since been replicated in **over 150 bridges globally**.

New Pamban Bridge: Engineering Excellence Reimagined

With the deterioration of the old bridge, the need for a **modern structure** became pressing. Launched in **2019**, the construction of the **New Pamban Rail Bridge** faced setbacks due to **COVID-19** and **harsh marine conditions**, but was successfully completed in **November 2024**.

Key Features:

- **Length:** 2.08 km
- **Vertical Lift Span:** 72.5 meters, can be raised by **17 meters** for ship passage
- **Speed Limit:** Trains can run at **80 km/h** (capable of supporting up to 160 km/h)
- **Design Life:** Built to operate safely for **100 years**

Built for the Future: Modern Materials & Design

The new bridge incorporates **cutting-edge construction materials**:

- **Stainless steel reinforcements**
- **Polysiloxane paint** to resist corrosion from salty sea winds



- **Fully welded joints** to minimize maintenance
- **101 piers and 333 deep piles** provide structural integrity
- Designed for **dual rail tracks**, ensuring future scalability

Rameswaram: A Spiritual and Strategic Hub

The bridge not only improves **rail connectivity** but also enhances access to **Rameswaram**, one of the **Char Dham pilgrimage sites**, attracting millions of visitors annually. Improved transport infrastructure is expected to **boost tourism, promote trade**, and open up the region to **faster economic development**.

What Lies Ahead for the Old Pamban Bridge?

As the **old bridge is set for dismantling**, plans are underway to **preserve parts of the structure** as a **tribute to its historical and engineering legacy**. It will remain a symbol of India's colonial-era ingenuity and a reminder of **William Scherzer's timeless design**.

Did You Know?

- The **Old Pamban Bridge** was **India's first sea bridge** and remained the **longest until the Bandra-Worli Sea Link** opened in 2009.
- The **Rameswaram-Sri Lanka ferry service**, once operational from the nearby **Dhanushkodi port**, was discontinued post-1964 cyclone damage.

Conclusion: A New Chapter in Coastal Connectivity

The **New Pamban Rail Bridge** isn't just a replacement—it's a powerful symbol of **India's engineering advancement**, combining **heritage and innovation**. With this upgrade, the region is set to witness **enhanced mobility, spiritual tourism**, and **strategic growth**, reinforcing Rameswaram's place on the national map.

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2 Diego Garcia & The Chagos Archipelago: A Strategic Outpost in the Indian Ocean

Context: In a significant show of force, the **United States** has **deployed six B-2 Spirit stealth bombers** to **Diego Garcia**, a remote but strategically vital base in the **Indian Ocean**, amidst escalating tensions with **Iran**. This move underscores the island's crucial role in **American global military reach**, particularly across **Asia, Africa, and the Middle East**.

Geography & Significance: Where Is Diego Garcia?

- **Diego Garcia** is the largest island in the **Chagos Archipelago**, located about **500 km south of the Maldives**.
- It lies just **7° south of the equator**, making it an ideal launch point for long-range military operations in the **Indo-Pacific**.



The Chagos Archipelago: A Disputed Legacy

Location & Composition:

- The **Chagos Archipelago** consists of **58 small islands** scattered in the central Indian Ocean.

Colonial History:

- Originally settled in the **late 18th century** by **enslaved African and Indian laborers** brought by the French for coconut plantations.
- In **1814**, under the **Treaty of Paris**, **France ceded Mauritius and Chagos to Britain**, initiating British colonial control.

Separation from Mauritius:

- In **1965**, the **UK separated Chagos from Mauritius**, forming the **British Indian Ocean Territory (BIOT)**.
- Mauritius received a **£3 million grant** in compensation.
- **Creole-speaking Chagossians**, the native islanders, were **forcibly evicted between 1967–1973** to make way for a U.S. military facility.

Diego Garcia: A Military Stronghold

- **Leased to the U.S. in 1967**, Diego Garcia became fully operational as a **U.S. military base in 1986**.
- It features **airstrips, naval facilities, satellite tracking, and strategic command centers**.

Global Military Operations:

- Played critical roles in:
 - The **Gulf War (1991)**
 - **Afghanistan and Iraq wars**
 - **Post-9/11 operations**
- A vital pivot in **Indo-Pacific geopolitics**, enhancing **U.S. rapid deployment capabilities** across three continents.

**Sovereignty Dispute & Legal Developments:**

- Though **Mauritius gained independence in 1968**, Chagos remained under **British rule**.
- In **2019**, the **International Court of Justice (ICJ)** ruled that the UK's continued administration of the islands was **unlawful** and that **sovereignty rightfully belongs to Mauritius**.
- In **2024**, the **UK agreed to transfer sovereignty** of the Chagos Archipelago to **Mauritius**, while retaining **control over Diego Garcia** under a **99-year lease agreement** with the U.S.

Why Is Diego Garcia So Important?**Strategic Location:**

- Serves as a key node in the **U.S. Indo-Pacific Command (INDOPACOM)**
- Offers **deep-sea anchorage**, long-range airstrike capability, and secure communications

Geopolitical Relevance:

- Balances Chinese influence in the Indian Ocean
- Acts as a **forward base** for deterrence and humanitarian operations

Human Rights Concerns:

- The **forcible eviction** of native Chagossians remains a **controversial and unresolved issue**.
- Many continue to demand the **right to return** and **reparations**, supported by **UN resolutions** and **international human rights bodies**.

Conclusion: A Hotspot of Strategic and Political Contest

The ongoing presence of U.S. military forces on **Diego Garcia**, coupled with its **complex colonial history**, makes the Chagos Archipelago a **flashpoint of geopolitical, legal, and ethical debates**. As global powers continue to jostle in the Indo-Pacific, Diego Garcia remains a **linchpin of Western military strategy**—but also a **symbol of unresolved colonial injustice**.

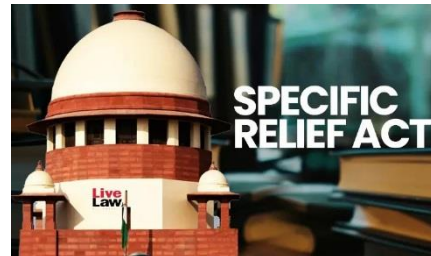
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3

SC Orders Probe into Forest and Wildlife Law Violations in Agasthyamalai Landscape, Tamil Nadu

Context: In a landmark move, the **Supreme Court of India** has ordered an investigation into **alleged violations of forest and wildlife laws** in Tamil Nadu's **Agasthyamalai landscape**, specifically related to the **encroachment of Singampatti Zamin forest lands**.

These forest areas were cleared over time for the cultivation of **tea, coffee, and rubber plantations**, allegedly without proper environmental clearances.

**Key Case: A. John Kennedy v. State of Tamil Nadu & Others**

The case highlights the **conflict between commercial interests and ecological integrity**. The lands in question were gradually brought under increasing levels of protection:

- **1978:** Declared part of the **Kalakkad-Mundanthurai Reserved Forest**
- **2007:** Notified as **Core Critical Tiger Habitat**
- **2012:** Designated as a **Wildlife Sanctuary** and part of **Kalakad Mundanthurai Tiger Reserve (KMTR)**

The elevation in legal protection led to the **eviction of tea estate workers**, raising socio-ecological concerns.

Supreme Court's Key Observations:**Forests as Ecological Lungs:**

- The Court emphasized that **"forests are the lungs of the ecosystem"**, playing a vital role in regulating **climate, rainfall, and biodiversity**.
- Citing the **Ministry of Environment**, it noted that **13,000 sq. km of forest land** across India is under **illegal encroachment**.

Tiger Conservation & Ecosystem Balance

- Referencing the landmark **T.N. Godavarman Thirumulpad v. Union of India** case, the Court reiterated:
"The tiger perishes without the forest, and the forest perishes without the tiger."
- **Tigers are umbrella species**—their conservation ensures the health of the entire forest ecosystem.

Ecocentric Approach Over Anthropocentric:

- Drawing from the **2024 Telangana v. Mohd. Abdul Qasim** decision, the Court upheld an **ecocentric jurisprudence**, where **nature is valued for its intrinsic worth**, not just for human utility.
- This shift aligns with **global environmental ethics**, emphasizing biodiversity rights alongside human interests.

Understanding the Agasthyamalai Landscape:**Location:**

- Straddles the **southern Western Ghats**, across **Tamil Nadu and Kerala**.
- Recognized as one of the **hottest biodiversity hotspots** in the world.

Key Protected Areas:[Download Our Application](#)**Freedom UPSC with Dhananjay Gautam**

Page No

6



- **Kalakad-Mundanthurai Tiger Reserve (KMTR)** – Tamil Nadu
- **Periyar Tiger Reserve** – Kerala
- **Srivilliputhur Grizzled Squirrel WLS, Meghamalai WLS, Tirunelveli WLS**

Hydrological Importance:

- Over **14 rivers originate** or pass through this landscape, including the **Thamirabarani River**, vital for agriculture and drinking water.

UNESCO Recognition:

- The **Agasthyamalai Biosphere Reserve** is part of the **UNESCO Man and the Biosphere (MAB) Programme**.
- Comprises the **Shendurney, Peppara, and Neyyar Wildlife Sanctuaries (Kerala)** along with **KMTR (Tamil Nadu)**.

Why This Matters:

- This case reflects the **increasing role of the judiciary** in **balancing environmental protection with human development**.
- It sets a precedent for stricter scrutiny of **land-use changes** in **ecologically sensitive zones**, particularly in **biodiversity hotspots** like the Western Ghats.
- The focus on an **ecocentric approach** represents a **paradigm shift in Indian environmental jurisprudence**, aligning legal frameworks with **climate goals and biodiversity conservation**.

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4

Cape Town Convention, 2001 & India's Legislative Response

Context: The Rajya Sabha has passed the **Protection of Interests in Aircraft Objects Bill, 2025**, marking a significant milestone in India's commitment to the Cape Town Convention.

Key Provisions of the Bill:

- **Legal Empowerment:** The **Central Government** is authorized to formulate rules for implementing the **Cape Town Convention** and its **Aircraft Protocol** within India.
- **Enhanced Creditor Rights:** In case of **default**, **creditors or lessors** are allowed to **repossess aircraft** within **two months** or within a **mutually agreed timeline**.
- **Domestic Oversight:** The **Directorate General of Civil Aviation (DGCA)** is designated as the **national registry authority**, aligning domestic systems with international standards.
- **Mandatory International Registration:** All **financial interests in aircraft** must be registered with the **International Registry** as per the Cape Town Convention norms.



Why This Matters for India:

- **Improves India's aviation financing ecosystem** by making it more **creditor-friendly**
- **Attracts more international leasing and investment** in the aviation sector
- **Helps prevent aircraft repossession delays**, which previously led to concerns from lessors
- **Supports fleet expansion** of Indian airlines by easing lease terms

Fun Fact:

Several Indian carriers in the past faced **aircraft repossession issues** due to defaults. The new law seeks to **avoid such disputes**, making the aviation sector more resilient.

Final Takeaway:

The enactment of this Bill is a **strategic step** toward strengthening India's position in the **global aviation market**. By aligning with the **Cape Town Convention**, India not only enhances **investor confidence** but also paves the way for a **modern, well-regulated aviation finance environment**.

What is the Cape Town Convention, 2001?

The **Cape Town Convention** is a landmark **international treaty** designed to support **asset-based financing and leasing** of high-value **mobile equipment**—such as **aircraft, helicopters, and aircraft engines**.

Key Highlights:

- **Adopted:** November 2001
- **Location:** Cape Town, South Africa
- **Institutions Involved:**
 - **International Civil Aviation Organization (ICAO)**
 - **International Institute for the Unification of Private Law (UNIDROIT)**

Core Objectives:

- **Facilitate international financing** of aircraft and related equipment

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Page No

8



- **Protect the rights of creditors and investors**
- **Establish a centralized International Registry** for financial interests
- **Harmonize legal frameworks** across jurisdictions to reduce uncertainty and risk

Did You Know?

The Convention is complemented by **sector-specific protocols**. The **Aircraft Protocol** is the most prominent, followed by protocols for **railway rolling stock** and **space assets**.

India's Involvement: From Signatory to Legislation

India became a **signatory** to the Convention in **2008**, but had **not ratified** it for years due to the lack of enabling domestic legislation. That changed with a recent development in 2025.



5

Seaweed Farming in India: A Green Revolution from the Sea

Context: India is actively promoting seaweed farming as a sustainable, eco-friendly, and profitable industry under the Pradhan Mantri Matsya Sampada Yojana (PMMSY).

Goal: Boost seaweed production to 1.12 million tonnes over the next five years.

What are Seaweeds?

Seaweeds are macroscopic algae that grow in marine and shallow coastal waters, especially on rocky shores.

Types of Seaweeds:

- **Microscopic:** e.g., *Phytoplankton* – vital for the marine food chain.
- **Macroscopic:** e.g., *Giant kelp* – forms underwater forests like marine redwoods.
- **Color Variants:**
 - **Red Algae** (434 species in India)
 - **Brown Algae** (194 species)
 - **Green Algae** (216 species)

India has documented around 844 seaweed species in its coastal waters.

Seaweed Cultivation: A Sustainable Solution

Why It's Eco-Friendly:

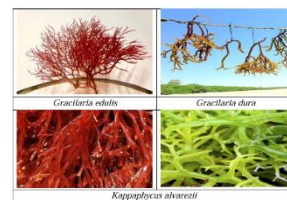
- Requires **no land, freshwater, fertilizers, or pesticides.**
- Grows in **shallow seawater**, ideally:
 - **Salinity** ≥ 30 ppt
 - **Water Depth** ≥ 1.0 meter at low tide
 - **Temperature:** 26–30°C
 - **Mild water currents**
 - **Transparent, clean water** with sandy or rocky bottoms

Health & Nutritional Benefits of Seaweeds

Seaweeds are called the “**Medical Food of the 21st Century**” for good reason.

Key Benefits:

- **Nutrient-Dense:** Contains 54 trace elements, vitamins, minerals, and amino acids.
- **Disease Prevention:** Fights cancer, diabetes, arthritis, cardiovascular issues, and high blood pressure.
- **Digestive Health:** Rich in fiber and prebiotics, improves gut health.
- **Thyroid Function:** Natural iodine source.
- **Immunity Booster:** Contains polysaccharides and bioactive compounds.
- **Anti-inflammatory & Antimicrobial:** Useful for burns, rashes, and wounds.





- **Cancer Research:** Some species show **anti-cancer potential** (e.g., leukemia and tumor treatments).

Fun Fact: The Japanese have used seaweed (*nori*) in sushi for over **1,500 years!**

Socio-Economic Significance:

Economic Potential:

- Global seaweed market: **US\$ 5.6 billion**
- Projected to grow to **US\$ 11.8 billion by 2030** (World Bank)

Livelihood & Empowerment:

- Ideal for **marginalized coastal communities**
- Promotes **women's empowerment** through **Self-Help Groups (SHGs)**

Industrial Uses:

- ~60 seaweed species are **commercially valuable**
- Used in **food, cosmetics, fertilizers, pharmaceuticals, and gelling agents**

Seaweed in Agriculture:

- Seaweed is a recognized **biostimulant**, helping in:
 - **Crop yield improvement**
 - **Soil health**
 - **Plant resistance** to drought and disease

Regulated under the Fertilizer (Control) Order, 1985

- Supports **organic farming** as a **natural fertilizer**

Environmental & Ecological Importance:

- Acts as a **natural carbon sink**, absorbing **CO₂**
- **Improves ocean health** and **provides marine habitats**
- Requires **no harmful inputs** like fertilizers or pesticides

Government Initiatives:

Key Programs:

- **Pradhan Mantri Matsya Sampada Yojana (PMMSY)** – Core scheme promoting seaweed farming
- Target: **1.12 million tonnes production** in five years

R&D & Infrastructure Support:

- **CSIR-CSMCRI** introduced **tissue culture** for mass cultivation of *Kappaphycus alvarezii* (used for carrageenan production)
- **Multipurpose Seaweed Park** in Tamil Nadu
- **Seaweed Brood Bank** in Daman & Diu
- Implemented by **National Fisheries Development Board (NFDB)**

Key Challenges:



Challenge	Description
Awareness Gap	Lack of knowledge among coastal communities
Infrastructure	Poor facilities for drying, processing, and storage
Ecological Risks	Unsustainable practices may harm marine ecosystems
Market Barriers	Limited access to markets, no price standards
Climate Sensitivity	Susceptible to changes in temperature and salinity

The Way Forward:

Solutions & Suggestions:

- **Boost R&D:** Develop climate-resilient seaweed strains
- **Encourage PPPs:** Attract private investments for **processing and exports**
- **Skill Development:** Train **fisherfolk, women, and youth** under PMMSY
- **Establish National Guidelines:** Ensure **eco-friendly and sustainable** farming

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6 GI Tag Recognition for Warangal Chapata Chilli & Kannadippaya

Context: India's **Geographical Indications (GI)** registry has expanded once again, with two culturally significant additions: **Warangal Chapata Chilli** from **Telangana** and **Kannadippaya** tribal handicraft from **Kerala**.

These recognitions not only protect the **uniqueness of indigenous products** but also uplift the communities that preserve them.

What is a Geographical Indication (GI) Tag?

A **GI Tag** is a form of **intellectual property right** that identifies a product as originating from a specific **geographical location**, possessing qualities, reputation, or characteristics unique to that area.

Key Features:

- **Exclusive Use:** Only authorized users from the region can use the GI name.
- **Legal Protection:** Prevents imitation and misuse of the name or product.
- **Validity:** GI registration is valid for **10 years** and is **renewable**.
- **Governed by:**
 - **Geographical Indications of Goods (Registration and Protection) Act, 1999**
 - **TRIPS Agreement (WTO)**
 - **Administered by:** Department for Promotion of Industry and Internal Trade (DPIIT), Ministry of Commerce and Industry

Warangal Chapata Chilli – Telangana's Fiery Pride

GI Fact File:

- **GI Status:** 18th GI-tagged product from Telangana
- **Agricultural GI:** 3rd after **Banaganapalli Mango** and **Tandur Red Gram**

Unique Features:

- **Appearance:** Bright red colour, round and tomato-like shape
- **Spice Profile:** Less spicy, but rich in flavor and color, thanks to high **capsicum oleoresin** content
 - Known for **anti-obesogenic, antioxidant, anti-inflammatory, and neuroprotective** properties
- **Varieties:**
 - **Single Patti**
 - **Double Patti**
 - **Odal**

Cultivation Legacy:

- Grown for over **80 years** in **Nagaram (Jammikunta Mandal)**
- **Nadikuda village** is believed to be the oldest cultivation site





- Thrives in the **distinct red and black soils** of the region
- Its **terroir** (soil, water, climate) makes it **irreplicable** outside Warangal

A perfect example of how nature and tradition combine to create regional exclusivity

Kannadippaya – Kerala's Tribal Mirror Mat

GI Fact File:

- **Kerala's First Tribal Handicraft GI Tag**
- A symbol of the **craftsmanship** of **indigenous communities** of the Western Ghats

Artisan Communities:

- **Oorali, Mannan, Muthuva, Malayan, Kadar**
- **Ulladan, Malayarayan, Hill Pulaya**
- Spread across **Idukki, Thrissur, Ernakulam, and Palakkad**

Special Features:

- **Name Meaning:** *Kannadi* (mirror) + *Paya* (mat) = **Mirror Mat**
- Crafted from **reed bamboo** (*Teinostachyum wightii*)
- Made using **the soft inner layers** of bamboo
- **Functional Benefits:**
 - Keeps **warm in winter**
 - Provides **coolness in summer**
- **Cultural Heritage:** Once presented as a **token of honor to kings**

A shining example of **tribal legacy, sustainable practices, and natural materials**

Why GI Tags Matter

- Promote **rural and tribal livelihoods**
- Enhance **market value** and **global branding**
- Encourage **cultural preservation**
- Enable **legal protection** and **exclusive marketing rights**

With over **600 GI-tagged products**, India is not just preserving heritage—it's **branding identity and empowering communities**.