DAILY CURRENT AFFAIRS 21-08-2025

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1. **Pamba River**

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2. **Anna Chakra**
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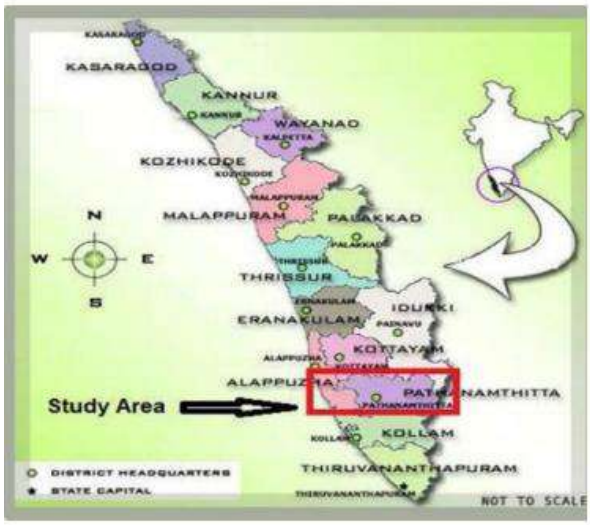
4. **Brain-Eating Amoeba**
5. **Asian Palm Civet**

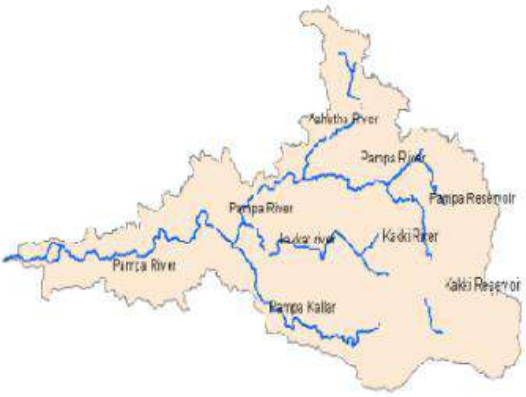
Pamba River

Syllabus: GS-1; Geography- Rivers

Context

- Recently, The central government initiated steps to include the Pampa River under the National River Conservation Plan (NRCP).





About

- The Pamba River (also spelled Pampa) is one of the most significant rivers in the Indian state of Kerala, holding immense religious, cultural, and ecological importance.

Key Highlights

- **Rank:** Third longest river in Kerala, after Periyar and Bharathappuzha.
- **Religious Title:** Known as **'Dakshina Bhageerathi'** (the Ganga of the South).
- **Latest News:** The central government has initiated steps to include the Pamba River under the **National River Conservation Plan (NRCP)**, a major funded initiative for river protection.

Know more

1. Religious and Cultural Significance

- The Pamba River is intrinsically linked to the **Sabarimala temple**, one of the largest annual pilgrimage sites in the world.
- Devotees of Lord Ayyappa consider a holy dip in the Pamba River, known as **"Pamba Snanam,"** an essential ritual purification before beginning the forest trek to the temple.
- This practice is performed both before and after the pilgrimage, making the river a central part of the spiritual journey for millions.

2. Course and Geography

- **Origin:** The river originates at **Pulachimalai Hill** on the **Peerumedu plateau** in the Western Ghats, at an elevation of about 1,650 meters.
- **Length:** It flows for approximately **176 km** westward.
- **Terminus:** It drains into the **Vembanad Lake** and eventually into the **Arabian Sea** through a network of distributaries, forming a small delta.
- **Confluence (Thriveni Sangam):** The Pamba is noted for its **Thriveni Sangam** near **Chengannur**, where it is joined by two other major rivers, the **Manimala** and the **Achenkovil**.

3. Basin and Tributaries

- **Catchment Area:** The river basin covers an area of **2,235 sq. km**, entirely within the state of Kerala.
- **Boundaries:** The basin is bounded by the **Western Ghats** in the east and the **Arabian Sea** in the west.
- **Major Tributaries:** The main tributaries that feed the Pamba River are:
    - Kakki Ar
    - Azhuta Ar
    - Kakkad Ar
    - Kallar
    - Manimala River
    - Achenkovil River

4. Ecological and Environmental Aspects

The Pamba basin is part of the rich Western Ghats biodiversity hotspot. However, the river faces significant environmental challenges:

- **Pollution:** The massive influx of pilgrims during the Sabarimala season leads to severe pollution from human waste, plastic, and other offerings.
- **Sand Mining:** Unsustainable sand mining has affected the river's flow and health.
- **Conservation Efforts:** The proposed inclusion in the **National River Conservation Plan (NRCP)** is a critical step towards implementing targeted measures for pollution abatement, sewage treatment, and overall ecological restoration of the river.

Anna Chakra

Syllabus: GS-2; Governance

Context

- As reported, the **Union Minister of State for Consumer Affairs, Food and Public Distribution** recently informed Parliament or the public about the successful development and implementation of the Anna Chakra platform, highlighting its integration with PM Gati Shakti and its potential to transform the PDS supply chain.

Overview of Anna Chakra

- Anna Chakra is a sophisticated supply chain optimization tool designed to modernize and enhance the efficiency of India's Public Distribution System (PDS). Its name, translating to "Food Wheel" in Sanskrit, symbolizes the seamless and efficient movement of food grains to millions of citizens.

1. About Anna Chakra

- **What it is:** A digital platform and set of algorithms designed to optimize the logistics and transportation of food grains within India's Public Distribution System (PDS).
- **Lead Agency:** Spearheaded by the **Department of Food & Public Distribution**, under the Ministry of Consumer Affairs, Food and Public Distribution.
- **Development Partners:** Created in collaboration with:

- **World Food Programme (WFP):** Provided technical assistance and global best practices in food logistics.
- **Foundation for Innovation and Technology Transfer (FITT), IIT-Delhi:** Provided the core technical and research expertise to develop the advanced algorithms.

2. Primary Objectives

- **Enhance Efficiency:** To streamline the movement of food grains from procurement centers (e.g., FCI warehouses) to Fair Price Shops (FPSs).
- **Reduce Costs:** To minimize overall logistics costs, including fuel, time, and manpower.
- **Improve Speed:** To ensure timely delivery of food grains, strengthening the food safety net for beneficiaries.
- **Promote Sustainability:** To reduce the carbon footprint of the PDS supply chain by optimizing routes and reducing unnecessary transportation.
- **Integration:** To create a unified, data-driven logistics ecosystem by integrating with other national platforms like PM Gati Shakti.

3. How it Works

Anna Chakra uses complex algorithms to analyze vast amounts of data and find the most optimal solutions for moving food grains.

- **Advanced Algorithms:** The core of the system uses operations research and data analytics to calculate the **most efficient routes**, minimizing distance and travel time between nodes (warehouses, railheads, FPSs).
- **Stakeholder Coverage:** It maps the entire complex PDS chain involving millions of stakeholders—farmers, procurement agencies, transporters, railways, state warehouses, and **over 4.37 Lakh (437,000) Fair Price Shops** across approximately 6,700 warehouses.
- **Interstate Optimization:** A specific tool has been developed to optimize the movement of food grains between states, a critical component for a nationwide program.
- **Integration with FOIS & ULIP:** It is integrated with the Indian Railways' **Freight Operations Information System (FOIS)** via the **Unified Logistics Interface Platform (ULIP)**. This allows for seamless booking and tracking of rail rakes (trains) used for transportation.

- **PM Gati Shakti Integration:** This is a key feature. Anna Chakra uses the **National Master Plan (NMP)** of PM Gati Shakti, which provides the precise geo-locations of all infrastructure, including warehouses and FPSs. This spatial data is crucial for accurate route planning.

4. Key Advantages

- **For the Government:**
  - **Cost Savings:** Significant reduction in freight and logistics costs.
  - **Transparency:** Provides data-driven insights for better decision-making and policy planning.
  - **Efficient Implementation:** Strengthens the world's largest food security program (covering 81 crore beneficiaries) by making it faster and more reliable.
- **For Beneficiaries:** Ensures that food grains reach Fair Price Shops on time, guaranteeing the promised food security without delays.
- **Environmental Benefits:** Optimized routes lead to **lower fuel consumption**, which directly translates to a **reduced carbon footprint** and lower greenhouse gas emissions.
- **For the Supply Chain:** Reduces congestion, idle time for trucks and rail wagons, and improves overall asset utilization.

NAVYA Initiative

Syllabus: GS-2: Social Justice – Welfare schemes.

Context:

- Recently highlighted in Lok Sabha by the Ministry of Skill Development & Entrepreneurship (MSDE).
- Targets adolescent girls in **aspirational districts** for socio-economic empowerment.

About NAVYA

- **Full form**: Nurturing Aspirations through Vocational training for Young Adolescent Girls.
- **Target group**: Girls aged **16–18 years**.
- **Joint initiative**:

- Ministry of Skill Development & Entrepreneurship (MSDE)
- Ministry of Women & Child Development (MWCD)

Objectives

- Provide **demand-driven vocational training** in traditional and non-traditional sectors.
- Ensure **holistic development** through modules on:
  - Health, nutrition, hygiene
  - Financial literacy & life skills
  - Legal awareness
- Enhance **employability & self-employment** opportunities.
- Facilitate **internships, apprenticeships, and job linkages**.
- Create **gender-inclusive skilling ecosystem** with safe, supportive training.
- Bridge **education–livelihood gap** in underserved & remote areas.

Implementation under PMKVY 4.0

- **Target**: Train **3,850 adolescent girls**.
- **Focus Sectors**:
  - Digital marketing
  - Cybersecurity
  - AI-enabled services
  - Green jobs
  - Other **emerging non-traditional roles**
- Training includes **life skills, financial literacy, and digital competence** for future workforce readiness.

Brain-Eating Amoeba

Syllabus: GS-3: General Science – Diseases.

Context:

- Kerala's health department issued an alert in **Kozhikode district** after three consecutive cases of PAM were reported.

About the Disease

- **Definition**: Infection of the brain and meninges.
- **Causative Agent**: Naegleria fowleri – also called the "brain-eating amoeba."
- **Nature**: Rare but highly fatal (>95% mortality).
- **Vulnerable Group**: Mainly young, active individuals.

Types of Amoebic Encephalitis

- **Primary Amoebic Meningoencephalitis (PAM)**
  - Caused by: Naegleria fowleri.
  - Rapid progression, often fatal within days.
- **Granulomatous Amoebic Encephalitis (GAE)**
  - Caused by: Acanthamoeba spp. and Balamuthia mandrillaris.
  - Develops slowly, but deadly if untreated.

Transmission

- Found in **warm, fresh water and soil**.
- Sources:
  - Shallow surface waters.
  - Poorly maintained **swimming pools, hot tubs, and spas**.
- Entry Point:
  - Infection occurs when contaminated water enters the **nose** (e.g., while diving, jumping, or swimming).
- Pathway:
  - Travels through nasal passages → brain → meninges.

Symptoms

- Sore throat.
- Headache and forehead pain.
- Hallucinations.
- Nausea, vomiting.
- High fever.

Treatment

- **Prompt diagnosis** and **specific antibiotics** may help.

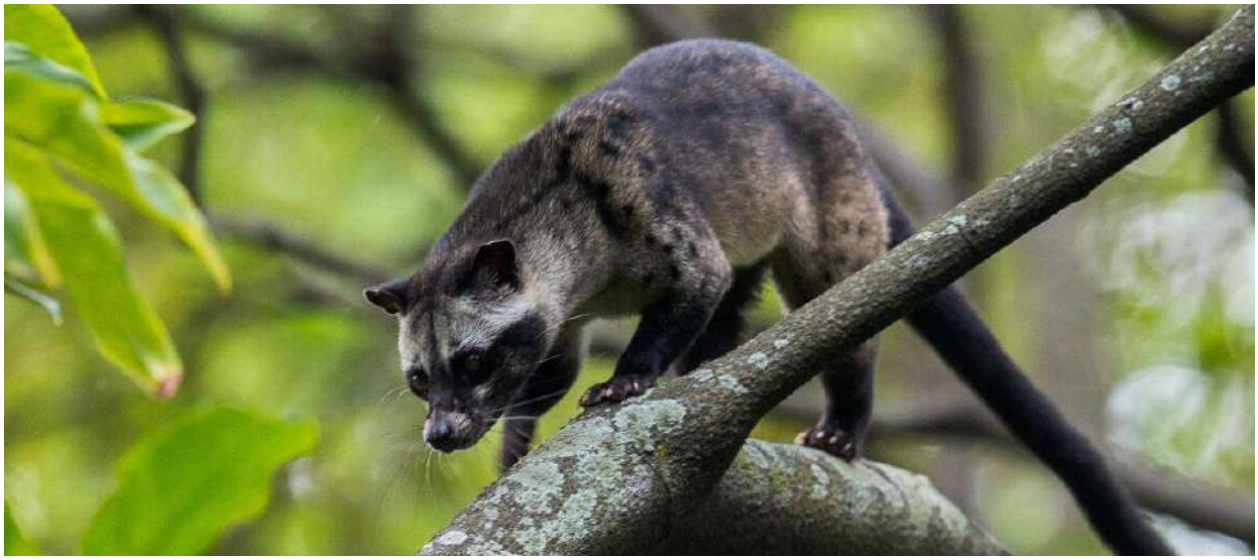
- However, **recovery is rare** due to rapid disease progression.

Asian Palm Civet

Syllabus: GS-3; Biodiversity

Context

- Kerala High Court's proceedings were recently disrupted due to a foul stench caused by the presence of an Asian Palm Civet.



About Asian Palm Civet

- **Scientific Name:** *Paradoxurus hermaphroditus*
- **Other Names:** Toddy Cat, Common Palm Civet
- **Family:** Viverridae (includes civets and mongooses)
- **Distribution:** South and Southeast Asia – India, Sri Lanka, Indonesia, Philippines.

Features

- **Size & Weight:** 53–71 cm long (including tail), 2–5 kg.
- **Body:** Long slender body, short legs, pointed snout.
- **Appearance:** Brownish-gray fur with black spots; white mask-like markings around eyes.
- **Behavior:**

  - Nocturnal.
  - Arboreal with excellent climbing skills.
  - Strong sense of smell.
- **Diet:** Insects, small mammals, fruits.
- **Unique Trait:** Can digest coffee beans → used in *Kopi Luwak* (civet coffee) production.

Conservation Status

- **IUCN Red List:** *Least Concern*