DAILY CURRENT AFFAIRS 06-05-2026

Mapping Perspective

1. **Mayon Volcano**

Prelims Perspective

2. **Debt Recovery Tribunal**
3. **Mission Drishti**

Mains Perspective

4. **Vantara Columbia Hippo Crisis**
5. **SACHET**

Mayon Volcano

Syllabus: GS-1: Physical Geography – Volcanoes.

Context:

- Thousands of people have been evacuated from areas south of Manila after the Mayon Volcano erupted recently

About Mayon Volcano

- It is an **active stratovolcano** located in Albay province on Luzon Island in the Philippines
- It is part of the **Pacific Ring of Fire**
- It is located on the eastern side of Luzon, **beside the Philippine Trench**, which is the convergent boundary where the Philippine Sea Plate is driven under the Philippine Mobile Belt

- Rising to 2462 m above the Albay Gulf, it is the Philippines' most active volcano
- Called the **world's most perfect volcanic cone** because of the symmetry of its shape, it has a base 130 km in circumference and rises to 2,462 metres from the shores of Albay Gulf
- It has **steep upper slopes** capped by a small summit crater
- Popular with climbers and campers, the volcano is the centre of Mayon Volcano National Park

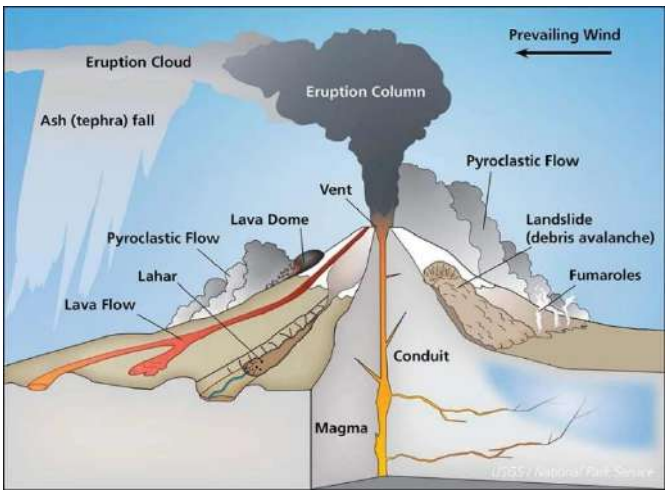
- There are large abaca plantations on its lower slopes

Eruption History and Characteristics

- **Historical eruptions date back to 1616 CE** that have been characterized by Strombolian eruptions, lava flows, pyroclastic flows, and mudflows
- There have been more than 30 eruptions recorded since 1616
- **Mayon's most violent eruption**, in 1814, killed more than 1200 people and devastated several towns
- An eruption in 1993 caused 79 deaths
- Eruptions occur predominately from the central conduit and have also produced lava flows that travel far down the flanks

What is a Stratovolcano?

- It is a **tall, steep, and cone-shaped** type of volcano
- Unlike flat shield volcanoes, they have higher peaks
- They are typically **found above subduction zones**, and they are often part of large volcanically active regions, such as the Ring of Fire that frames much of the Pacific Ocean
- **Stratovolcanoes comprise the largest percentage** (~60%) of the Earth's individual volcanoes, and most are characterized by eruptions of andesite and dacite, lavas that are cooler and more viscous than basalt
- These **more viscous lavas allow gas pressures** to build up to high levels, therefore these volcanoes often suffer explosive eruptions
- They are usually **about half-half lava and pyroclastic material**, and the layering of these products gives them their other common name of composite volcanoes
- At the peak, stratovolcanoes **usually have a small crater**



Debt Recovery Tribunal

Syllabus: GS-2: Indian Polity - Tribunals

Context:

- The Department of Financial Services (DFS) convened a colloquium of Chairpersons of Debt Recovery Appellate Tribunals and Presiding Officers of Debt Recovery Tribunals (DRTs) in New Delhi.

About Debt Recovery Tribunals (DRTs)

- **Nature:** Quasi-judicial bodies established under the Recovery of Debts Due to Banks and Financial Institutions Act, 1993.
- **Primary Role:** Adjudicating debt recovery disputes related to banks and financial institutions.
- **Jurisdictional Threshold:** Handle loan default cases above ₹20 lakh, focusing on secured debts.
- **Additional Function:** Hear Securitisation Applications (SAs) filed under the SARFAESI Act, 2002 by borrowers or aggrieved parties.
- **Structure:** Currently 39 DRTs functioning across India, each headed by a Presiding Officer.

Composition

- Presided over by a judicial officer qualified to be a District Judge.
- May include administrative and technical members appointed by the Central Government.

Powers of DRTs

- Summon and examine witnesses.
- Compel production of documents.
- Receive evidence on affidavits.
- Review or dismiss applications.
- Conduct ex parte proceedings.
- Issue commissions for examination of documents and witnesses.

Jurisdiction of DRTs

- **Territorial Jurisdiction:** Defined by the Central Government.
- **Subject-Matter Jurisdiction:** Limited to cases involving debt recovery by banks and financial institutions.

Mission Drishti

Syllabus: GS-3: Science and Technology – Satellites.

Context:

- Recently, **Bengaluru-based space start-up GalaxEye** successfully launched its Mission Drishti satellite aboard Falcon 9 from California

About Mission Drishti

- It is the **world's first multi-sensor Earth observation (EO) satellite**
- It is **India's largest privately built satellite** and also the **highest-resolution satellite developed in the country**
- It is planned by **Bengaluru-based space startup – GalaxEye**

Key Features of Mission Drishti

- It is the **world's first OptoSAR satellite**, combining:
  - **Electro-optical (EO) sensors** → capture high-resolution images in daylight and clear skies
  - **Synthetic Aperture Radar (SAR)** → enables imaging in all weather conditions and at any time using radar pulses
- It is engineered as a **remote-sensing Earth observation system**, optimised for:
  - **Spatial, spectral and temporal resolutions** → to capture high-precision imagery
- **Technical Specifications:**
  - Weight → **190 kg**
  - Resolution → **1.5 metre**

Applications / Significance

- Enables **governments, defence agencies and industries** to perform advanced geospatial analysis across a wide range of applications, including:
  - Border surveillance
  - Disaster management
  - Defence
  - Infrastructure monitoring
  - Agriculture
  - Financial and insurance assessment

Analytical Insight

- Represents **growing role of private sector in India's space ecosystem**
- Enhances **all-weather, day-night surveillance capability** → critical for national security and disaster response
- Strengthens **geospatial intelligence (GEOINT)** and data-driven governance
- Aligns with India's push for **high-resolution Earth observation and space-tech commercialisation**

Vantara Columbia Hippo Crisis

Syllabus: GS-3: Environment – Wildlife Protection.

Context:

- **Vantara**, a **3,500-acre wildlife rescue and rehabilitation centre in Jamnagar, Gujarat**, owned by **Anant Ambani (son of Reliance chairman)**, has offered to **relocate and care for 80 hippos** that were otherwise set to be **euthanised**

Origin of Colombia's Hippo Population

- Colombia's hippos trace back to **four animals—three females and one male—imported in 1981 by Pablo Escobar** for his private zoo at **Hacienda Nápoles**
- After his death in **1993**, the estate was abandoned, allowing the hippos to **escape into the Magdalena River basin**
- They **reproduced rapidly**, growing to an **estimated population of around 170 today**

Why Colombia Decided to Cull Hippos

- Colombia declared **Hippopotamus amphibius an invasive species in 2022** due to **rapid population growth and ecological concerns**
- Earlier efforts like **sterilisation (launched in 2021)** proved **costly, labour-intensive, and largely ineffective**
- Ineffectiveness linked to **dominant males mating with multiple females**
- **Scientific research** highlighted urgency due to **rising population and high management costs**
- Experts concluded that **even with relocation, some level of culling would be unavoidable**

Ecological Impact: Need for Population Control

- **Peer-reviewed research** shows hippos are **significantly altering local ecosystems**
- **2020 study findings**:
  - **Disrupted ecosystem metabolism**
  - **Increased nutrient loading** from waste
  - Shift in aquatic life: **phytoplankton dominated by harmful cyanobacteria**
- Indicates **serious ecological imbalance**, necessitating **population control measures**

Challenges in Relocating Hippos

- **Biological, logistical, and financial constraints** make relocation difficult
- **Tranquilisation risks**: thick skin + proximity to water → **risk of drowning**
- **High mortality during capture**, often due to **capture myopathy (stress-induced condition)**
- **Massive size (up to 3,000 kg)** makes transport **complex and costly**
- Expenses can reach **tens of thousands of dollars per animal**
- **Peer-reviewed consensus**: no single solution (**sterilisation, translocation, culling**) is sufficient → **combined intervention needed**, but **window narrowing annually**

Can Vantara Accommodate 80 Hippos

- **Greens Zoological Rescue and Rehabilitation Centre (≈650 acres)** has **sufficient space**; **minimum enclosure requirement ≈18 acres**
- **Practical challenges**:

- Hippos live in **social groups led by dominant males** → need **multiple separate enclosures**
- **Jamnagar's hotter and drier climate** → requires **continuous freshwater management**

- Implies **long-term care complexity despite spatial feasibility**

CITES and Wildlife Transfer Concerns

- **CITES (Convention on International Trade in Endangered Species of Wild Fauna and Flora)** reviewed India's handling of wildlife imports after inspecting Vantara
- Found **gaps in due diligence while issuing permits for endangered species**
- Initially recommended **halting further import permits** until **procedures improved and origins verified**
- Later **recommendation reversed** after objections from **countries like the US, Japan, Brazil, and India**, calling the move **premature**

Analytical Insight

- Case highlights **invasive species governance vs ethical conservation dilemmas**
- Demonstrates limits of **single-policy interventions** → need for **integrated wildlife management strategy**
- Raises concerns on **global wildlife trade regulation, institutional capacity, and ecological sustainability**

SACHET

Syllabus: GS-3: Disaster Management – Early Warning System.

Context:

- India has introduced the **SACHET Cell Broadcast system**, an indigenous emergency messaging service designed to deliver instant alerts during crises such as natural disasters, wars, or emergencies.
- As part of testing, a **nationwide notification with siren sound** was sent, clarifying that no action was required (test message).
- Aim: strengthen disaster response framework through **timely alerts → enhanced public safety → resilient communication ecosystem**.

SACHET: India's Integrated Emergency Alert System

Definition

- **SACHET (meaning "alert")**: Integrated Alert System delivering disaster warnings directly to mobile users in **geo-targeted areas via SMS/Cell Broadcast**.

Institutional Framework

- Launched by **Department of Telecommunications (DoT)**
- Developed in collaboration with **National Disaster Management Authority (NDMA)**
- Objective: strengthen **real-time disaster communication across India**

Purpose and Scope

- Provides timely alerts during:
  - Natural disasters (**cyclones, earthquakes, floods**)
  - Man-made emergencies (**gas leaks, chemical hazards, wars**)
- Ensures **rapid dissemination of critical information** to citizens

How the System Works

- Uses **cellular network towers** to broadcast alerts
- Functions as a **one-way communication system**
- **No internet connectivity required**
- Capable of reaching **billions of users within seconds (network permitting)**
- Alerts can be **nationwide or location-specific**

Coverage and Reach

- Operational across **all 36 States and Union Territories**
- Has delivered **over 134 billion SMS alerts**
- Supports **19 Indian languages**

Test Use in India (Recent)

- On **May 2, 2026 (~11:40 AM)**:
  - Smartphones emitted **loud alert sound + vibration + pop-up ("extremely severe alert")**
  - Conducted as a **nationwide test of cell broadcast system**
- Comparable to systems in countries like **Japan (tsunami/disaster warnings)**
- Represents **one of the largest-scale implementations globally**

Significance

- Enhances **disaster preparedness and response capacity**
- Supports UN's **"Early Warnings for All" initiative** (implemented with ITU support)
- Improves **last-mile connectivity of emergency alerts**
- Builds **resilient, responsive public communication system**

Cell Broadcast Technology: Core Concept

Definition

- Communication method enabling authorities to send **short messages simultaneously to multiple mobile phones** in a **specific geographic area**

Key Features

- Enables **targeted dissemination** (large population or hazard-specific zone)
- **Bypasses network congestion → instant delivery**
- **No internet dependency**
- Supports **multi-language customisation**

Origin and Global Adoption

- Developed in **early 1990s** by **European Telecommunications Standards Institute (ETSI)**
- First demonstrated in **Paris (1997)**
- Currently used by **30+ countries** as a best practice for disaster warnings

Working Mechanism

- Operates through **routine communication between mobile towers and devices**
- Authorities utilise **existing one-way broadcast channel**
- **Single alert → transmitted to all devices connected to a tower simultaneously**
- Ensures **instant, wide-scale delivery without congestion**

Cell Broadcast vs SMS: Key Differences

Aspect	**Cell Broadcast (CB)**	**SMS-Based System**
Communication Type	**One-to-many**	**One-to-one**
Delivery	Single message to **millions simultaneously**	Individual messages to each user

Aspect	Cell Broadcast (CB)	SMS-Based System
Targeting	**Geo-targeted via cell towers**	Based on **phone numbers**
Privacy	**No user data required → privacy-friendly**	Requires user database
Reach	Includes **visitors/foreign users**	Limited to registered numbers
Visibility	**Loud alerts + pop-ups (hard to ignore)**	Can be **missed/overlooked**
Network Efficiency	**No congestion issues**	Can face delays in peak traffic

Conclusion (Analytical Insight)

- Transition from **SMS-based alerts → Cell Broadcast system** marks a **technological leap in disaster governance**
- Aligns with **global best practices + Sendai Framework principles**
- Key challenge: **full-scale rollout, public awareness, and device compatibility**
- Overall, SACHET strengthens **India's disaster risk reduction (DRR) architecture and digital public infrastructure**