DAILY CURRENT AFFAIRS 24-09-2025

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Alamatti Dam

Syllabus: GS-1: Resource Geography – Water Resource – Dams & Reservoirs.

Context:

- The **Karnataka Cabinet (2025)** approved acquisition of **1,33,867 lakh acres of land**.
- Aim: To **raise the dam's height** from **519.16 m to 524.256 m**, enabling larger water storage and extended irrigation.
- This move sets the stage for implementing the **Upper Krishna Project (UKP) Phase III**, a long-pending project to expand irrigation facilities in North Karnataka's drought-prone districts.

About Almatti Dam

- **River:** Built across the **Krishna River**.
- **Location:** Bagalkot district, North Karnataka.
- **Completion:** July 2005.
- **Purpose:**
  - Provide irrigation to semi-arid regions of Karnataka.
  - Ensure drinking water supply to surrounding districts.

- Generate hydroelectric power for the state grid.
- Manage and moderate flood risks during monsoons.

Key Specifications

- **Dimensions:**
  - Height: 52.5 metres.
  - Length: 3.5 kilometres.
- **Storage Capacity:** Gross storage of **123.08 TMC** (at 519 m MSL).
- **Reservoir Role:** Principal reservoir under the **Upper Krishna Irrigation Project (UKP)**.
- **Power Generation:**
  - Installed capacity: **290 MW**.
  - Powerhouses: Almatti I &Almatti II (separate facilities).
  - Technology: Vertical Kaplan turbines – five units of 55 MW and one unit of 15 MW.
  - Annual output: ~**713 million KW**.
- **Water Management:**
  - After power generation, water is released into the **Narayanpur reservoir**, meeting irrigation needs of downstream regions.

Upper Krishna Project (UKP)

- A major multipurpose irrigation project in Karnataka.
- Almatti Dam is its **core reservoir**, crucial for Phase III expansion.
- Objective: Transform drought-prone regions like **Bijapur, Bagalkot, Raichur, Gulbarga** into fertile agricultural zones.
- Raising dam height increases water availability for both irrigation and power generation.

Environmental & Socio-Economic Aspects

- **Land Acquisition:** Raising dam height involves large-scale land submergence and rehabilitation of affected families.
- **Energy Security:** Strengthens Karnataka's renewable power capacity.
- **Flood Control:** Plays a role in regulating Krishna River floods during heavy rainfall.
- **Tourism Development:**

- 77 acres around the dam are landscaped with gardens (Japanese Garden, Rock Garden, Mughal Garden, Gopal Krishna Garden, Lavakush Garden).
- Attracts significant tourism, adding local employment and revenue opportunities.

National Archives of India

Syllabus: GS-2; Government policies and Intervention

Context:

- The **50th Golden Jubilee Meeting of the National Committee of Archivists (NCA)** was recently organized by the NAI.

About NAI

- Custodian of the **records of enduring value** of the Government of India.
- Preserves, maintains, and provides access to official documents.

History

- Established as the **Imperial Record Department** on **11 March 1891** in **Kolkata (Calcutta)**.
- Transferred to **New Delhi in 1911**.
- Renamed as the **National Archives of India** post-independence.

Functions & Role

- **Nodal agency** for implementing:
  - **Public Records Act, 1993**
  - **Public Record Rules, 1997**
- Preserves a vast collection of records, including in **Sanskrit, Persian, Odia**, and other languages.
- Provides access to records as per **Public Records Rules, 1997**.
- Does **not receive classified documents**.

Organisational Structure

- **Headed by**: Director General of Archives.
- **Nodal Ministry**: Ministry of Culture.
- **Location**:

- Headquarters: **New Delhi**
- **Regional Office**: Bhopal
- **Records Centres**: Bhubaneswar, Jaipur, Puducherry

Significance

- Ensures **preservation of India's documentary heritage**.
- Facilitates **research and policy-making** through historical records.
- Acts as a **knowledge repository** for governance, administration, and history.

Project Vijayak

Syllabus:GS-3: Infrastrure.

Context:

- **15th Raising Day celebrated** at Kargil, Ladakh (2025).

Background

- **Launched**: 2010 by the **Border Roads Organisation (BRO)**.
- **Named after**: *Operation Vijay* (Kargil War, 1999) – highlighting the link between battle theatre and project area.
- **Earlier jurisdiction**: Areas now under Project Vijayak were earlier managed by **Project Himank**.

Objectives

- To provide **strategic road connectivity** in the remote and difficult terrains of **Kargil and Zanskar**.
- Strengthen **security infrastructure** along the **Line of Control (LC)**.
- Enhance **socio-economic development** of local communities by improving mobility and accessibility.

Strategic Importance

- Entrusted with **two critical lines of communication** in the Western Indus Corridor:
    1. **Zojila – Kargil – Leh axis** → crucial for movement of troops and supplies.

2. **Nimmu – Padam – Darcha axis** → provides alternate connectivity between **Ladakh and Himachal Pradesh**, reducing dependence on Kashmir Valley routes.

Role and Contributions

- **Defence**: Facilitates quick mobilization of armed forces and logistics in border areas.
- **Infrastructure**: Enhances road network in challenging Himalayan terrain.
- **Socio-economic impact**: Boosted local trade, tourism, and access to healthcare and education.

Welfare Initiatives under Project Vijayak

- Focus on welfare of **Casual Paid Labourers (CPLs)** who work in extreme conditions.
- Measures introduced:
  - Insulated shelters.
  - Improved sanitation.
  - Protective gear and winter clothing.
  - Regular health camps.

Significance:

- Links defence preparedness with border area development.
- Example of BRO's role in **infrastructure-led strategic security**.
- Highlights integration of **national security + local welfare** in policy implementation.

Impatiens Selvasinghii

Syllabus: GS-3: Wildlife Conservation.

Context:

- Recently discovered in the **Kudremukh range of the Western Ghats, Karnataka** (at ~1,630 m altitude).
- Named after **Dr. P. Selva Singh Richard**, Associate Professor of Botany, Madras Christian College.

- Findings published in the journal *Taiwania*.

Key Features

- **Genus**: *Impatiens* (commonly called balsams).
- **Flower characteristics**:
  - Among the **smallest flowered balsams** in the Western Ghats (~4 mm flowers).
  - **Prominently lobed wing petals** – unique distinguishing feature.
  - **Pendulous flowers** (drooping) unlike related species.
- **Ecological role**: Small insects depend on it for pollination.

Distribution of *Impatiens* in India

- Over **280 taxa** of *Impatiens* reported in India.
- Major distribution: **Eastern Himalayas** and **Western Ghats**.
- **Endemism**:
  - 210 taxa endemic to India.
  - ~130 endemic to Western Ghats.
  - ~80% of Western Ghats taxa are **endangered**.

Conservation Concerns

- Found near **trekking routes in Kudremukh**, leading to risk of trampling and habitat disturbance.
- **IUCN Provisional Assessment**: threatened status (due to restricted range and anthropogenic pressure).

Yuan Wang 5

Syllabus: GS-3: Internal Security - Maritime Security

Context:

- China's **spy ship Yuan Wang 5** has returned to the **Indian Ocean Region**, three years after docking at **Sri Lanka's Hambantota Port (2022)**.
- Raises strategic concerns for **India's maritime security** and **Indo-Pacific geopolitics**.

About Yuan Wang 5

- **Launched**: 2007.
- **Type**: Specialized tracking ship (part of Yuan Wang series).
- **Operator**: China's **PLA Strategic Support Force**.
- **Role**:
  - Strategic **space and missile monitoring**.
  - Near-real-time **situational awareness** for **PLA Rocket Force & Navy**.
  - **Validates performance** of ICBMs & hypersonic weapons (telemetry data).
  - Supports **satellite & space missions**.

Features of Yuan Wang 5

- **Specifications**:
  - Displacement: ~25,000 tons.
  - Length: 222 m; Beam: 25+ m.
  - Crew capacity: ~400 personnel.
  - Diesel engines with high power generation (equivalent to lighting up a town of 3 lakh+ people).
  - Endurance: Weeks-long deployments.
- **Technological Capabilities**:
  - **Radar Systems**: High-power phased-array radars detect ballistic missile launches **>3,000 km**.
  - **Missile Tracking**: Tracks trajectories (boost to re-entry), monitors warhead separation & propulsion.
  - **Satellite Tracking**: Antennas for LEO, GEO & deep-space trajectories; works on multiple frequency bands.

- **Electronic Support Measures (ESM)**: Intercepts **radar emissions & communications** of foreign warships/aircraft.

Strategic Concerns for India

- **Maritime Security**: Enhances China's **surveillance** over India's naval bases & missile tests.
- **Geopolitical Angle**:
  - Hambantota Port lease to China = **strategic foothold** in India's neighbourhood.
  - Heightens concerns over **String of Pearls strategy**.
- **Indo-Pacific Impact**: Adds to China's **maritime intelligence network** in IOR, affecting **India-US-Japan cooperation**.