



DAILY CURRENT AFFAIRS 31-12-2024

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Teesta River

Syllabus: GS-1; Geography

Context

- The Bengal irrigation department has decided to supply water to farmlands through pipelines from the Teesta river and its canals, instead of acquiring more land to dig new canals, sub-canals and drains.



Geographical Features

- **Origin:** The Teesta River originates from the **Tso Lhamo Lake** in the **Eastern Himalayas**, located in **North Sikkim**.
- **Length:** Approximately **315 km**.
- **Course:**
 - Flows southward through **Sikkim** and forms the border between **Sikkim** and **West Bengal**.

- Enters **West Bengal** and finally drains into the **Brahmaputra River** (locally known as the **Jamuna**) in Bangladesh.
- **Tributaries:**
 - Major tributaries include **Rangpo, Rangit, and Lish.**

Significance

- **Irrigation and Agriculture:**
 - Provides water for irrigation, particularly in North Bengal and Bangladesh.
 - Known as the "Lifeline of Sikkim."
- **Hydropower:**
 - The river has immense potential for hydropower generation. Notable projects include:
 - **Teesta-V Dam** in Sikkim.
 - Plays a vital role in India's renewable energy initiatives.
- **Ecological Importance:**
 - Supports diverse ecosystems, including subtropical forests and alpine vegetation.
 - Home to various species of flora and fauna, some of which are endemic.
- **Tourism:**
 - The river is a hotspot for adventure tourism activities like rafting and trekking, particularly in Sikkim.

Disputes and Challenges

- **India-Bangladesh Water Sharing Dispute:**
 - The Teesta water-sharing agreement has been a long-standing issue between **India and Bangladesh.**
 - Bangladesh demands 50% of the river's water during the dry season, while India cites its own needs for irrigation in West Bengal.
 - The proposed agreement allocates 42.5% to India and 37.5% to Bangladesh, but it has not been finalized.
- **Environmental Concerns:**
 - Excessive damming and hydropower projects have led to ecological imbalances.
 - The river faces siltation, reduction in flow, and impact on aquatic biodiversity.
- **Climate Change:**
 - Glacial retreat in the Himalayas threatens the river's long-term flow.

- Increasingly erratic monsoon patterns impact its volume.

Cultural Aspects

- The river is revered in local cultures and features prominently in folklore and traditions in Sikkim and Bengal.

PM- Ayushman Bharat Health Infrastructure Mission (PM-ABHIM) scheme

Syllabus: GS-2; Government Policies and Interventions

Context

- The Delhi High Court recently directed that the Aam Aadmi Party (AAP) government in the national capital needed to sign an MoU with the Ministry of Health and Family Welfare before January 5 2024 for implementation of the Pradhan Mantri Ayushman Bharat Health Infrastructure Mission (PM-ABHIM), irrespective of imposition of Model Code of Conduct in the run-up to the Assembly elections.

About

- Launched in **October 2021**, PM-ABHIM is a centrally sponsored scheme aimed at strengthening India's health infrastructure to ensure preparedness for public health emergencies and to address critical gaps in health services.

Objectives

- **Strengthen Public Health Infrastructure:**
 - Develop robust healthcare facilities in rural, urban, and remote areas.
- **Emergency Preparedness and Response:**
 - Create systems to manage and mitigate health emergencies such as pandemics.
- **Reduce Dependency on Foreign Health Systems:**
 - Build self-reliance in public health infrastructure.

Key Features

- **Rural and Urban Health Facilities:**

- Establish **17,788 Health and Wellness Centres** in rural areas.
- Build **11,024 urban health and wellness centres**.
- **Critical Care Hospital Blocks:**
 - Set up **critical care blocks** in 602 districts, with a focus on high-priority districts.
- **Integrated Public Health Labs (IPHL):**
 - Establish **730 IPHLs** to improve diagnostics at the block and district levels.
- **Disease Surveillance and Pandemic Management:**
 - Strengthen **district-level surveillance** and support integrated health information portals.
 - Develop a robust **National Digital Health Ecosystem**.
- **Biosecurity and Health Research:**
 - Build **biosafety labs (BSL-III)** for advanced disease diagnostics.
 - Promote indigenous research for drugs and vaccines.
- **Workforce Development:**
 - Train health professionals to meet growing demand during health crises.

Implementation

- **Funding:**
 - Centrally sponsored scheme with a mix of **central and state government funds**.
 - States are given flexibility in fund allocation based on specific needs.
- **Phased Approach:**
 - Implementation from **2021 to 2026**, with targets for improving infrastructure in phases.

Significance

- **Universal Health Coverage:**
 - Complements **Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)** by focusing on preventive and primary care.
- **Pandemic Preparedness:**
 - Addresses gaps exposed by the COVID-19 pandemic in healthcare infrastructure.
- **Equitable Access:**
 - Aims to reduce regional disparities in healthcare services.
- **Health Research and Innovation:**
 - Promotes India's capability to respond to global health challenges.

Challenges

- **Funding Constraints:**
 - States with limited resources may face challenges in implementation.
- **Workforce Shortages:**
 - Shortage of trained healthcare professionals in rural areas.
- **Monitoring and Evaluation:**
 - Ensuring accountability and timely delivery of project components.

Way Forward

- **Public-Private Partnerships (PPP):**
 - Leverage private sector expertise for better implementation.
- **Capacity Building:**
 - Focus on training and incentivizing healthcare workers, especially in rural areas.
- **Digital Health Push:**
 - Integrate PM-ABHIM with the National Digital Health Mission for better data-driven healthcare services.

Conclusion

- PM-ABHIM is a landmark initiative for building a resilient health infrastructure in India, addressing both current and future public health challenges. It represents a significant step towards achieving **Universal Health Coverage (UHC)** and meeting the Sustainable Development Goals (SDG 3: Good Health and Well-being).

Exercise SURYA KIRAN 2024

Syllabus: GS-2; International Relations

Context:

- The 17th edition of Joint Military Exercise SURYA KIRAN will be conducted in Pithoragarh, Uttarakhand from 24th November to 07th December 2023.

Overview of Joint Military Exercise SURYA KIRAN

17th Edition Highlights:

- **Location:** Pithoragarh, Uttarakhand, India.
- **Dates:** 24th November to 7th December 2023.
- **Participants:** Indian Army and Nepal Army.

About Exercise Surya Kiran:

- **Nature:**
A joint annual military exercise conducted alternately in India and Nepal.
- **Objective:**
 - Enhance **interoperability** between the two armies.
 - Focus on **jungle warfare, counter-terrorism operations in mountainous terrains**, and **Humanitarian Assistance and Disaster Relief (HADR)** under the **United Nations Charter**.
 - Improve operational capabilities, combat skills, and coordination in challenging scenarios.
- **Activities:**
Includes war games, operational discussions, and practical drills for skill refinement and coordination.
- **Significance:**
 - Platform for soldiers from both nations to exchange ideas, share best practices, and deepen understanding of operational procedures.
 - Strengthens military ties and fosters bilateral relations.

18th Edition Preview:

- **Location:**Saljhandi, Nepal.
- **Key Participants:**
 - **Indian Army:** A battalion from the **11th Gorkha Rifles**.
 - **Nepal Army:** The **Srijung Battalion**.

ISRO's LVM3 Rocket Achieves Multi-Orbit Capability

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

Context:

The Indian Space Research Organisation (ISRO) has recently marked milestone with its LVM3 rocket, which allows the rocket to place satellites in various orbits during a single mission.

Multi-Element Ignitor Development

- ISRO developed a **multi-element ignitor** for the CE-20 Cryogenic engine.
- Enables the engine to restart in space, enhancing operational flexibility.
- Facilitates the deployment of multiple satellites into various orbits during a single mission.
- Reduces the need for additional launches, improving efficiency and cost-effectiveness.

Significance of the CE-20 Cryogenic Engine

- The CE-20 engine powers the final stage of the LVM3 rocket.
- Critical for accurately placing satellites into designated orbits.
- Sea Level Test was used to simulate full operational duration.
- **Nozzle Protection System** enhanced testing effectiveness and reduced costs.

Historical Context of Multi-Orbit Missions

- ISRO first demonstrated multi-orbit deployment in 2019 with the **PSLV-C45** mission.
 - Successfully placed one primary satellite and 28 international satellites into different orbits.
- Plans to enhance the CE-20 engine for **two or three restarts** in future missions.
- Multi-restart capability improves the operational flexibility of the LVM3 rocket.

Cold Gas Thrusters and Super-Cooled Fuels

- Previously used **cold gas thrusters** for satellite positioning:
 - Utilized leftover fuel for minor thrust adjustments to achieve precise deployment.

- CE-20 engine operates with **super-cooled fuels**, requiring stringent storage conditions.
- ISRO's indigenous design has powered several LVM3 missions.
- Upgrades in progress to support heavier payloads, including the **Gaganyaan mission**.

Future Implications

- Restartable engines position ISRO for greater versatility in satellite deployment.
- Enhances cost efficiency and reduces mission complexity.
- Strengthens India's presence in the global space industry.
- Enables more complex missions, paving the way for advancements in space exploration.

FREE-AI Committee

Syllabus: GS-3; Science & Tech – Policy Making

Context

- The Reserve Bank of India (RBI) has announced that it has constituted a committee to develop a Framework for Responsible and Ethical Enablement of Artificial Intelligence (FREE-AI) in the Financial Sector.

About

- The Reserve Bank of India (RBI) has established an **eight-member expert committee** to create a framework for the **responsible and ethical enablement of artificial intelligence (FREE-AI)** in the financial sector.

Objective

- To develop a robust and adaptable framework for the responsible and ethical adoption of artificial intelligence in India's financial sector.

Key Responsibilities

- **Assess Current AI Adoption:**

- Evaluate the use of AI in financial services in India and globally.
- Review international regulatory and supervisory practices in AI, particularly in the financial sector.
- **Risk Identification and Management:**
 - Identify potential risks associated with the adoption of AI in the financial sector.
 - Recommend frameworks for risk evaluation, mitigation, and monitoring.
 - Propose compliance requirements for various financial institutions, including banks, NBFCs, fintechs, and payment system operators.
- **Governance and Ethical Framework:**
 - Develop a governance framework for responsible and ethical adoption of AI applications in India's financial sector.

Committee Chairperson

- **Pushpak Bhattacharyya**
 - Professor, Department of Computer Science and Engineering, IIT Bombay.

Other Members

1. **Debjani Ghosh** - Independent Director, Reserve Bank Innovation Hub.
2. **Balaraman Ravindran** - Professor and Head, Wadhvani School of Data Science and AI, IIT Madras.
3. **Abhishek Singh** - Additional Secretary, Ministry of Electronics and IT.
4. **Rahul Matthan** - Partner, Trilegal.
5. **Anjani Rathor** - Group Head and Chief Digital Experience Officer, HDFC Bank.
6. **Sree Hari Nagaralu** - Head of Security AI Research, Microsoft India (R&D).
7. **Suwendu Pati** - CGM, FinTech Department, RBI.

Timeline

- The committee is required to submit its report within **six months** from the date of its first meeting.

Importance of the Initiative

- The initiative aims to balance innovation in AI applications with ethical and governance standards, ensuring:
 - Transparent, fair, and secure AI practices in the financial sector.
 - Risk mitigation to protect stakeholders, including customers and financial entities.
 - Promotion of trust in AI-driven financial solutions.

- This move by the RBI underscores India's commitment to harnessing AI responsibly to enhance the efficiency and inclusivity of its financial ecosystem.