DAILY CURRENT AFFAIRS 30-12-2024

GS-1

1. **Sathanur Dam**
2. **Denmark Strait Cataract**

GS-2

3. **Rejected Votes in Election**
4. **South Asian Economic Union**

GS-3

5. **Operation Greens Scheme**

Sathanur Dam

Syllabus: GS-1: Resources – Dams.

Context:

Many days before the historic rainfall brought by Cyclone Fengal, Sathanur was filled to 95% of its capacity.

Cyclone Fengal and Record Rainfall

- Cyclone Fengal caused unprecedented rainfall in upstream areas of the Sathanur dam, Tamil Nadu.
- **Rainfall Records**:
  - Harur: 251mm (highest in 70 years, recorded on Dec 2, 2024).
  - Uthangarai: 185mm (second highest in 70 years, recorded on the same day).
  - Chengam: 115mm (seventh highest in the same period).
- Downstream taluks (e.g., Sankarapuram, Thandarampattu, Tiruvannamalai) also received significant rainfall:
  - Sankarapuram: 255mm (highest in 70 years on Dec 2, 2024).

Flooding and Controversy

- **Political Debate**:
  - AIADMK alleged improper flood management and sudden water release caused the floods.
  - PMK claimed gradual water release could have prevented the disaster.
  - DMK government asserted adherence to protocols and issued timely flood warnings.

Flood Management Analysis

- **Dam Storage and Outflow Data**:
  - By November 28, 2024, the dam was at 95% capacity.
  - Between Dec 2 and Dec 5, the inflow was 1.3 lakh cusecs, matching outflow due to lack of storage space.
- **Seasonal Trends**:

- Usual pattern: August–December (storage), January–April (controlled release).

Key Factors Worsening Floods

- **Upstream Rainfall**:
  - Record-breaking rainfall upstream added to dam inflows.
- **Downstream Rainfall**:
  - Heavy rain in downstream regions (e.g., Thenpennai river) amplified flooding.
- **Catchment Contributions**:
  - Uncontrolled flows from catchment areas accentuated the flood levels.

Critical Observations

- The dam's storage cycle made it challenging to accommodate sudden historic inflows.
- Heavy rainfall both upstream and downstream overwhelmed flood management efforts.
- Controlled water release prior to the cyclone and enhanced early warning systems could mitigate future risks.

Denmark Strait Cataract

Syllabus: GS-1; Geography

Context

- World's Largest Underwater Waterfall Discovered
- The Denmark Strait cataract, an underwater waterfall, is 11,500 feet tall, located between Iceland and Greenland.

About

- The **Denmark Strait cataract**, located between Iceland and Greenland, holds the title of the **largest waterfall on Earth**. Despite its size, this underwater cascade remains hidden beneath the ocean surface, making it one of nature's most extraordinary yet unseen phenomena.

Unparalleled Size and Dimensions

- **Total Drop:** 11,500 feet (3,500 meters) from summit to ocean floor.
- **Vertical Drop:** 6,600 feet (2,000 meters), dwarfing Angel Falls, which measures just over 3,200 feet (979 meters).
- **Width:** Spans approximately 300 miles (480 kilometers).

Formation During the Ice Age

The Denmark Strait cataract was shaped during the **last Ice Age**, between **17,500 and 11,500 years ago**.

- **Glacial Activity:** Glaciers carved the sloping seabed, enabling cold water to cascade into warmer waters below.
- **Thermohaline Circulation:** This underwater waterfall contributes significantly to the global system of ocean currents that regulate Earth's climate.

Dynamics of the Water Flow

- **Flow Velocity:** 1.6 feet per second (0.5 meters per second), much slower than Niagara Falls' 100 feet per second (30.5 meters per second).
- **Gradient:** A relatively gentle slope compared to terrestrial waterfalls.

- **Polar Water Movement:** Acts as a crucial pathway for cold polar waters heading southward into the Atlantic.

Scientific Evidence and Observations

- **Invisible from Surface:** The waterfall's effects are imperceptible above water.
- **Temperature and Salinity:** Changes in these parameters confirm the cataract's activity, as highlighted by **Professor Anna Sanchez Vidal** of the University of Barcelona.

Geological Importance

The Denmark Strait cataract exemplifies the interplay between geology and oceanography:

- **Submarine Gateway:** Facilitates the southward flow of cold water, balancing ocean temperatures.
- **Climate Regulation:** A vital component of global climate systems due to its role in thermohaline circulation.

Comparison with Land-Based Waterfalls

- **Angel Falls:** The tallest terrestrial waterfall, at 3,200 feet (979 meters), is less than half the vertical drop of the Denmark Strait cataract.
- **Niagara Falls:** Despite its dramatic visuals and velocity, it pales in size and impact compared to this submarine cascade.

Global Significance

The Denmark Strait cataract is a hidden giant that profoundly influences:

- **Ocean Currents:** Helps drive the global conveyor belt of ocean circulation.
- **Climate Stability:** Plays a key role in regulating temperature and salinity, which impact weather patterns worldwide.

Rejected Votes in Election

Syllabus: GS-2: Indian Polity – Elections.

Context:

- The Election Commission of India's report on the 2024 Lok Sabha elections reveals over 10.58 lakh votes were rejected or uncounted.

Rejected Votes: Overview

- **Total Rejected Votes:** 10.58 lakh
  - **Postal Votes Rejected:** 5,35,825
  - **EVM Votes Rejected:** 5,22,513
- **Proxy and Tendered Votes:**
  - **Proxy Votes:** 3 cases reported.
  - **Tendered Votes:** 9,634 cases indicating impersonation or procedural issues.

Key Implications for Representation

- Procedural inefficiencies in vote acceptance.
- Need for voter education and streamlined guidelines to reduce errors.
- Technological upgrades in both **EVMs** and **postal voting systems**.

GS Paper II – Electoral Reforms

- **Electoral Integrity:** Rejection of votes underscores gaps in voter and administrative adherence to election guidelines.
- **Challenges in EVMs and Postal Voting:** Technological upgrades can ensure more accurate and transparent vote counting.
- **Reforms Required:** Introduction of better error-check mechanisms for postal and EVM votes, training for election officials, and increased awareness campaigns for voters.

GS Paper IV – Ethics in Governance

- **Ethical Concerns in Elections:** Impersonation cases (proxy and tendered votes) highlight the need for ethical adherence by candidates and voters.
- **Governance Gaps:** Systems must address ethical lapses to maintain public trust in democratic processes.

Suggestions for Electoral Reforms

- **Technological Improvements:**
  - Enhanced EVMs with advanced error detection mechanisms.
  - Digitization and verification improvements in postal voting.
- **Voter Awareness Programs:**
  - Focus on filling ballots correctly to reduce human error.
  - Educating voters about tendered votes and ethical participation.
- **Administrative Training:**
  - Capacity building for election officials to handle complexities in vote verification and rejection processes.
- **Ethical Oversight:**
  - Strengthening legal frameworks to penalize impersonation and malpractice.

South Asian Economic Union

Syllabus: GS-2: International Organisations.

Context:

- The South Asian Economic Union (SAEU) represents a visionary goal of economic integration among the member states of the South Asian Association for Regional Cooperation (SAARC).
- Despite its promise of fostering economic growth and regional stability, the realization of this union faces significant challenges due to political tensions, trade imbalances, and infrastructural deficiencies.

What is the South Asian Economic Union (SAEU)?

- **Definition**: The SAEU is a long-term initiative under SAARC aimed at unifying the economies of Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka.
- **Objective**: To promote regional trade, investment, and connectivity, leading to deeper economic cooperation and market integration.

- **Foundation**: The SAEU builds upon agreements like the South Asian Free Trade Area (SAFTA), established in 2006 to reduce tariffs and facilitate free trade among SAARC nations.

Pillars of Integration (ADB Report):

- Regional market integration.
- Cross-border connectivity.
- Energy cooperation.
- Private sector liberalization.

Trade Data Among SAARC Members

Source: ADB Report

- **Intra-regional trade**: Less than 5% of formal trade occurs within SAARC nations.
- **India's dominance**:
  - Contributes 73% of intra-regional exports.
  - Imports only 13% of regional trade, creating imbalances.
- **Reliance by smaller nations**:
  - Bhutan: 82% of exports are intra-regional.
  - Afghanistan: 67%.
  - Nepal: 71%.
- **Barriers**: Non-tariff barriers (NTBs) and safeguard measures hinder trade liberalization under SAFTA.

Role of BIMSTEC and SAARC in Regional Integration

BIMSTEC's Contribution:

- **Regional Connectivity**: Initiatives like the BIMSTEC Master Plan for Transport Connectivity bridge South and Southeast Asia, fostering trade and infrastructure growth.
- **Economic Cooperation**: Enhances trade agreements and sectoral collaboration in energy, technology, and tourism.

SAARC's Contribution:

1. **Trade Liberalization**: Through SAFTA, SAARC works towards reducing tariffs to boost intra-regional trade.
2. **Policy Harmonization**: Encourages alignment of trade and economic policies, laying the groundwork for a unified market.

India's Initiatives to Strengthen Economic Cooperation

1. **Neighbourhood First Policy**: Prioritizes economic engagement with SAARC nations via bilateral and multilateral agreements.
2. **India-Sri Lanka Cooperation**: Expands free trade agreements and energy collaboration in Trincomalee.
3. **Energy Connectivity**: Develops projects like the Bangladesh-Bhutan-India-Nepal (BBIN) energy grid for regional power trade.
4. **Infrastructure Development**:
    - Kaladan Multimodal Transit Transport Project.
    - Road corridors connecting Myanmar and Bangladesh.
5. **Digital Connectivity**: Advances e-governance and digital infrastructure in neighboring countries.

Challenges to the SAEU

- **Political Tensions**: Conflicts between India and Pakistan and Nepal's tilt towards China hinder cooperation.
- **Trade Imbalances**: India's export-heavy trade creates economic disparities.
- **Non-Tariff Barriers**: Restrictive policies and unaligned trade regulations obstruct growth.
- **Infrastructure Deficits**: Weak transport and logistics networks impede effective trade.
- **Economic Disparities**: Uneven development levels complicate integration efforts.

Way Forward

- **Strengthen SAFTA**: Simplify trade frameworks, eliminate NTBs, and ensure equitable trade practices.

- **Boost Connectivity**: Invest in regional transport, energy, and digital infrastructure for seamless trade.
- **Resolve Political Tensions**: Promote multilateral dialogues to foster trust and collaboration.
- **Leverage the Private Sector**: Encourage business participation in integration projects to spur innovation and investment.
- **Ensure Inclusivity**: Implement policies that address trade imbalances and uplift smaller nations.

Conclusion

The SAEU offers a transformative opportunity to unite South Asia economically. However, the path to realization requires addressing entrenched political and economic barriers. A phased, inclusive approach—focused on connectivity, cooperation, and equity—could eventually transform this vision into a tangible reality, ensuring prosperity and stability for the region.

Operation Greens Scheme

Syllabus: GS-3: Indian Agriculture.

Context:

- The government's flagship Operation Greens scheme, designed to stabilise crop prices and benefit farmers, has spent just 34 per cent of its allocated budget for 2024-25, according to a parliamentary report.

Introduction

- **What it is:** A Central Sector Scheme under the **Pradhan Mantri Kisan SAMPADA Yojana** designed to stabilize prices of agricultural crops and improve farmers' welfare.
- **Ministry:** Ministry of Food Processing Industries (MoFPI).
- **Launched:** November 2018, with an initial allocation of ₹500 crore.

Aims of the Scheme

1. **Enhance Farmers' Income:** Through strategic interventions in production and marketing.

2. **Reduce Price Volatility:** Stabilize markets to benefit both producers and consumers.
3. **Minimize Post-Harvest Losses:** Develop infrastructure and supply chains.
4. **Create Farm-to-Market Linkages:** Facilitate efficient transportation, storage, and processing.

Crops Covered

- Initially: **Tomato, Onion, Potato (TOP)** crops.
- Expanded (2021): Includes 22 **perishable crops** such as mango, banana, apple, guava, ginger, shrimp, etc.

Features of the Scheme

1. Long-Term Interventions

- Formation and strengthening of **Production Clusters** and **Farmer Producer Organizations (FPOs)**.
- Development of **farm-gate infrastructure** like storage units and processing facilities.
- Promotion of **food processing** and **value addition** to improve profitability.

2. Short-Term Interventions

- **50% Subsidies** for transportation and storage to prevent distress sales.
- Quick logistical solutions to **reduce post-harvest losses**.

Expanded Scope

- During the **Aatmanirbhar Bharat Package (2020)**:
  - Short-term measures included **all fruits and vegetables (TOTAL)**.
- Under the **15th Finance Commission Cycle (2021–26)**:
  - Value chain development extended to **22 perishable crops**.

Challenges

Despite its promise, **budget underutilization** (34% for 2024–25) highlights the need for improved implementation, monitoring, and fund utilization to achieve its objectives effectively.