DAILY CURRENT AFFAIRS 01-01-2025

GS-2

1. **Private Members Bills**
2. **PM Modi Launches Campaign Celebrating 75 Years of India's Constitution**

GS-3

3. **PSLV-C60**
4. **GPS Spoofing**
5. **Biodiversity Credit Market**

Private Members Bills

Syllabus: GS-2: Indian Polity – Parliament.

Context:

- Time allotted for Private Members' business in Parliament on the decline.

Decline in the Role of Private Members' Business in Parliament

Key Terms:

- **Private Members' Bills (PMBs)**: Legislative proposals introduced by MPs not part of the government.
- **Private Members' Resolutions (PMRs)**: Suggestions for Parliament to take specific actions, proposed by private members.

Data on Parliamentary Time Spent

Private Members' Bills (PMBs):

- **17th Lok Sabha**:
  - Lok Sabha: 9.08 hours over five years.
  - Rajya Sabha: 27.01 hours.
- **18th Lok Sabha (two sessions)**:
  - Lok Sabha: 0.15 hours.
  - Rajya Sabha: 0.62 hours.

Private Members' Resolutions (PMRs):

- **17th Lok Sabha**:
  - Lok Sabha: 16.43 hours.
  - Rajya Sabha: 20.78 hours.
- **18th Lok Sabha (two sessions)**:
  - Lok Sabha: 1.98 hours.
  - Rajya Sabha: 2.09 hours.

Recent Winter Session:

- **Lok Sabha**: Functioned 52% of allotted time, sat for 62 hours.

- **Rajya Sabha**: Functioned 40% of allotted time, sat for 43 hours.

Importance of PMBs and PMRs

- **Individual Expression**:
  - Instruments for MPs to voice opinions beyond party lines.
  - Important for political messaging.
- **Historical Example**:
  - In 1966, H.V. Kamath moved a PMB to restrict the PM's post to directly elected MPs, questioning Indira Gandhi's eligibility.

Challenges and Criticisms

Declining Relevance:

- **Lack of Seriousness**: MPs often absent during scheduled discussions.
- **Scheduling Issues**:
  - Currently held on Friday afternoons, when MPs prioritize returning to constituencies.
  - Suggestion: Shift to midweek (e.g., Wednesday).

Long Pendency of Bills:

- Example: MP Manish Tewari's bills, including amendments to the anti-defection law, have been pending for over 15 years.

Lack of Passage:

- Only **14 PMBs have been passed** since independence, none since 1970.

Broader Implications

- **Marginalization of Parliamentary Tools**:
  - Reduced time for PMBs and PMRs equates to curtailing MPs' freedom.
- **Sacrosanct Space**:
  - Constitution intended PMBs to remain unaffected by government or party pressures.

Criticisms from Leaders

- **John Brittas (CPI(M))**: PMBs provide MPs with a platform free from party or government influence; this must be protected.
- **Derek O'Brien (TMC)**: Criticized the role of the Rajya Sabha Chair for monopolizing discussion time.

Conclusion

The significant decline in time allocated to Private Members' Business reflects poorly on the functioning of the Parliament. Reviving this crucial platform is essential for preserving MPs' autonomy and the spirit of democracy.

Private Members' Bill

Definition:

- A legislative proposal introduced in Parliament by a Member of Parliament (MP) who is **not a part of the government**.

Purpose:

- **Expression of Individual Voice**: Allows MPs to raise issues and propose solutions independently of party mandates.
- **Political Messaging**: Reflects concerns on policy and governance, often highlighting alternative perspectives.

Key Features:

- **Eligibility**: Any MP not holding a ministerial post can introduce a PMB.
- **Discussion Time**: Allocated for discussion on **Friday afternoons** when Parliament is in session.
- **Passage Process**: Requires debate, voting, and approval in both Houses, similar to government bills.

Historical Significance:

- Since independence, **14 PMBs have been passed** and received assent.
- Last PMB passed in **1970**.

Examples:

- **1966**: H.V. Kamath introduced a PMB proposing that only directly elected MPs could become Prime Minister, indirectly questioning Indira Gandhi's eligibility.

PM Modi Launches Campaign Celebrating 75 Years of India's Constitution

Syllabus: GS-2: Indian Polity

Context:

- Prime Minister Narendra Modi highlighted 2024 as the 75th anniversary of India's Constitution, emphasizing its importance as a guiding force for the nation.
- **Enduring Relevance**: The Constitution's principles continue to shape India's governance and democratic processes.

Year-Long Celebrations

- **Start Date**: The celebrations began on Constitution Day, November 26, 2024.
- **Public Engagement**: A range of activities throughout the year will involve citizens in understanding and celebrating the Constitution's legacy.
- **Constitution75.com**:
    - A dedicated website launched to connect the public with the Constitution.
    - Features:
        - The Preamble available in multiple languages.
        - A platform to upload videos related to the Constitution.
        - Information about constitutional matters for public inquiry.

Constitution Day (November 26)

- **Significance**: Constitution Day, also known as **Samvidhan Divas**, is observed every year on November 26 to commemorate the adoption of the Indian Constitution in 1949.
- **Adoption Date**: The Constitution was adopted by the **Constituent Assembly** on November 26, 1949, and came into effect on January 26, 1950, marking the birth of the **Republic of India**.
- **Purpose**: The day is celebrated to honor the **Constituent Assembly members**, especially Dr. B.R. Ambedkar, the principal architect of the Constitution.
- **Activities**:
    - Public readings of the **Preamble of the Constitution**.

- Discussions and programs on the importance of the Constitution in shaping India's democracy.
- Educational activities to raise awareness about constitutional rights and duties.

- **Promoting Constitutional Values**: The day encourages citizens to reflect on the Constitution's relevance and its role in ensuring justice, liberty, equality, and fraternity in India.

PSLV-C60

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

Context:

- ISRO successfully launches PSLV-C60 with space docking experiment mission from Sriharikota.

ISRO's PSLV-C60 Launch: Space Docking Experiment (SPADEX) Mission

Key Highlights of the PSLV-C60 Mission

- **Launch Date and Location**:
  - Lift-off: December 30, 2024, at 10 PM.
  - Location: First Launch Pad, Sriharikota Spaceport.
- **Rocket Specifications**:
  - Rocket: Polar Satellite Launch Vehicle (PSLV-C60).
  - Height: 44.5 meters.
  - Flight: 62nd mission of the PSLV series.
- **Payload**:
  - Two spacecraft:
    - **Spacecraft A (SDX01)**: Chaser satellite.
    - **Spacecraft B (SDX02)**: Target satellite.
  - Each spacecraft weighs 220 kg.

- Additional payloads:
  - Fourth stage of the rocket (PS-4) configured as the PSLV Orbital Experimental Module-4 (POEM-4).
  - 24 small payloads (14 from ISRO, 10 from academia) placed in different orbits.

Objectives and Significance

- **SPADEX Mission**:
  - Demonstrates space docking technology, critical for future space missions.
  - Essential for satellite servicing, interplanetary missions, and space station operations.
- **Prelude to ISRO's Space Station**:
  - SPADEX lays the foundation for India's **Bharatiya Antariksh Station**, targeted for 2035.
- **Advancement in Space Capabilities**:
  - Space docking is essential for:
    - Sample retrieval missions (e.g., Chandrayaan-4).
    - Indian crewed missions to the Moon.
    - Collaborative objectives requiring multiple launches.
- **Global Recognition**:
  - India aspires to join the elite group of countries mastering space docking technology.

Mission Details

- **Orbit and Separation**:
  - Spacecraft placed in a low Earth orbit at an altitude of ~470 km.
  - Successful separation of Spacecraft A and B post-launch.
- **Countdown and Launch Timing**:
  - 25-hour countdown commenced on December 29, 2024.
  - Originally scheduled for 9:58 PM; rescheduled to 10 PM.

- **Docking Operation**:
    - Spacecraft A (Chaser) and Spacecraft B (Target) will merge at the same speed and distance during orbital operations.

Strategic Importance

- **Technological Advancements**:
    - Space docking enhances ISRO's operational flexibility.
    - Expands mission horizons for interplanetary and long-duration missions.
- **Alignment with National Space Goals**:
    - Integral to India's roadmap for lunar exploration, sample returns, and space station development.
- **Global Standing**:
    - Puts India closer to becoming the fourth country to achieve space docking technology.

Statements from ISRO

- **Mission Accomplished**:
    - Mission Director M Jayakumar confirmed the success of the SPADEX spacecraft deployment.
- **Visionary Objective**:
    - ISRO emphasizes in-space docking technology's role in achieving common mission objectives requiring multiple launches.

These advancements reflect India's growing capabilities in space exploration and its commitment to achieving significant milestones in global space technology.

GPS Spoofing

Syllabus: GS-3: Internal Security – cyber security.

Context:

- **Definition**: GPS spoofing involves sending fake signals to deceive navigation systems, leading to incorrect positioning and timing.

- **Prevalence**: Increasingly common in conflict zones, particularly targeting drones and aviation systems.

Instances and Escalation of GPS Interference

- **Geopolitical Impact**: Particularly concerning near India's borders with Pakistan and Myanmar.
    - **Reported Impact**: Over 10% of aircraft in these areas have reported navigation inaccuracies due to GPS interference.
    - **OPS Group's Concern**: OPSGROUP, a network of aviation professionals, has highlighted these zones as significant concerns.

Recent Incidents

- **Azerbaijan Airlines Crash (December 25, 2024)**:
    - **Fatalities**: 38 people killed.
    - **Cause**: Linked to GPS interference, with Russian air defense operations against Ukrainian drones implicated.
- **Global Increase in Spoofing Incidents**:
    - **Surge in Incidents**: Daily GPS spoofing events increased from 300 in January 2024 to 1,500 by August 2024.

Impacted Regions and Reporting

- **Delhi Airspace**:
    - GPS spoofing incidents reported in Delhi's airspace, affecting 316 flights within one month.
    - **Affected Routes**: Northern Indian routes (e.g., from Amritsar) to international destinations are frequently impacted.
- **Pilot Reports**:
    - Pilots often report interference but the frequency of reporting is low, and data remains undisclosed by authorities.

Effects of GPS Spoofing on Aircraft

- **Navigation Challenges**: GPS spoofing can lead to:
    - **Erroneous Speed Readings**: Pilots face misleading speed data, which impacts decision-making.

- **Misleading Terrain Warnings**: Incorrect warnings about proximity to terrain, which could lead to safety risks.

- **Backup Navigation Tools**:
  - Aircraft are equipped with **Inertial Reference Systems (IRS)**, which can function independently of GPS for up to 5 hours.
  - **Limitation**: Despite this, pilots report that GPS spoofing severely limits navigation accuracy.

Global Response and Regulatory Concerns

- **International Civil Aviation Organization (ICAO)**:
  - **Montreal Safety Conference (Late 2024)**: ICAO raised concerns over the increasing interference with Global Navigation Satellite Systems (GNSS).
  - **Recommendations**: Urged military authorities to communicate intentional GPS disruptions to aviation officials to improve safety protocols.

- **Role of DGCA**:
  - **Advisories**: The Directorate General of Civil Aviation (DGCA) has recommended airlines establish safety protocols to counter GPS spoofing.
  - **Limited Reporting**: Despite advisories, official data on spoofing remains limited.

Conclusion and Way Forward

- **Rising Threat**: GPS spoofing and interference pose increasing risks to global aviation and national security.
- **Need for Enhanced Monitoring**: More comprehensive data sharing and real-time monitoring systems are essential to mitigate risks associated with GPS disruptions.
- **Collaboration Between Sectors**: Coordination between military and civil aviation authorities is crucial to manage and address intentional GPS disruptions.

Biodiversity Credit Market

Syllabus: GS-3: Biodiversity.

Context:

- **Definition:** Biodiversity credits represent measurable improvements in ecosystems and species protection.
- **Basis:** Credits are awarded based on conservation outcomes that compare efforts against a baseline (i.e., a scenario without intervention).
- **Objective:** To channel private funds into conservation projects aimed at preserving and restoring biodiversity.

Market Growth and Goals

- **Current Valuation:** The market is currently valued at $8 million.
- **Projections:**
  - Expected to grow to $2 billion by 2030.
  - Expected to reach $69 billion by 2050.
- **Global Goal (Kunming-Montreal Global Biodiversity Framework):**
  - Aims to raise $200 billion annually for conservation by 2030.
  - Focus on promoting innovative financing methods for biodiversity conservation.

Measurement and Monitoring Issues

- **Land Area-Based Measurement:**
  - Credits are often measured in terms of land area, which complicates cross-comparison.
- **Duration of Credits:**
  - Most credits are issued for a five-year period, but this can vary.
- **Challenges of Standardization:**
  - Standardizing biodiversity credits is difficult due to the unique ecological values in different regions.
  - The complexity of biodiversity makes it hard to create uniform metrics.

- **Oversimplification of Ecosystem Value:**
  - Current methods often assign numeric values without considering species interactions, cultural significance, or ecosystem complexity.
  - This can result in inadequate evaluations of ecosystem health and value.

Tracking Conservation Effectiveness

- **Short-Term Assessments:**
  - Current assessments may fail to capture long-term fluctuations in species populations or ecosystems.
  - Short-term evaluations may lead to inaccurate conclusions about the effectiveness of conservation efforts.

Issues with Additionality and Leakage

- **Additionality Challenge:**
  - Investments need to prove "additionality," i.e., that the project generates outcomes beyond what would have happened naturally (without the intervention).
  - Proving the effectiveness of investments is a challenge in this regard.
- **Leakage Problem:**
  - Leakage refers to harmful practices shifting to other areas instead of being fully eliminated by conservation efforts.
  - This phenomenon complicates the overall effectiveness of conservation efforts and may undermine the benefits of biodiversity credits.

Potential for Improvement

- **Improved Regulation:**
  - Strengthening market regulations could help enhance the effectiveness of the biodiversity credit market.
- **Need for Commitment:**
  - Effective oversight will require:
    - Commitment from industry stakeholders.
    - Transparency in processes.

- Active participation from civil society.

Conclusion

- While the voluntary biodiversity credit market holds promise for funding conservation, challenges in measurement, monitoring, and ensuring the effectiveness of conservation efforts need to be addressed.
- Stronger regulation and active participation can help improve its overall impact on biodiversity conservation.