

Daily SARAANSH

NEED FOR A NATIONAL SPACE LAW IN INDIA

India will observe its National Space Day on 23rd August, highlighting upcoming <u>Gaganyaan</u> and <u>Bharat Antariksh Station</u> missions. However, the absence of a national space law poses challenges to India's commercial and global space ambitions.

National Space Day commemorates the successful soft landing of **Vikram Lander** of **Chandrayaan-3** and deployment of **Pragyan Rover** on the Moon (23rd Aug 2023).

NEED FOR A NATIONAL SPACE LAW

- → Global Commitments: India is a signatory to the Outer Space Treaty (OST) (1967) but needs domestic laws for compliance and to avoid falling behind space superpowers (US, Japan, China, Russia).
- → **Geopolitical Realities:**Rising tensions among space nations necessitate strong domestic legal frameworks to safeguard India's commercial and strategic space interests.
- → Legal Certainty for Industry: Indian Space Policy 2023 and INSPACE need statutory backing to streamline licensing, reduce delays, and build investor confidence.
- → Safety & Sustainability: A space law would manage space debris, set clear safety standards, – India's credibility ↑.

MILESTONES IN INDIAN SPACE EXPLORATION Chandrayaan-3 lands on the Moon's south pole Chandrayaan-2 launched Launched 104 satellites in 1 mission Mangalyaan, first mission to Mars Chandrayaan-1, first mission to the Moon 1984 O Rakesh Sharma becomes the first 1980 Indian in space First successful satellite laund 1975 Ó Launch of Aryabhata, India's first satellite Formation of ISRO 1963 O

Challenges India Faces without a National Space Law

- → Regulatory Delays: Multiple ministries involved, duplication and delays in approvals. IN-SPACe lacks a formal legislative authority.
- → **Liability Issues:** India is liable for all space activities, including private launches, but lacks clear frameworks for liability.
- FDI Barriers: Limited FDI in satellite manufacturing. Competitor nations (Luxembourg, UAE) attract space startups with more liberal investment policies.
- → Cybersecurity Risks: Satellites are vulnerable to hacking, GPS spoofing, and space-based espionage, posing national security risks.
- → Climate & Infrastructure Risks: Coastal launch sites (Sriharikota, Thumba) face climaterelated risks with no legal adaptation measures.

Enhancing India's Space Industry: Suggestions

- → Legal Backing: A comprehensive space law, aligning with OST to define govt roles and establish liability norms.
- → Private Sector Growth: Fully implement NSP 2023 for private participation in satellite development, launch vehicles and deep-space tech.
- → **Space Traffic Management:** Implement systems for debris mitigation and active removal.
- → Cybersecurity Enhancement: Create a Space Cybersecurity Command for satellite defense using advanced tech like quantum encryption.
- → **International Cooperation:** Independent Space Traffic Management (STM) system to track and mitigate debris.

SILVER ECONOMY

World Senior Citizen Day (21st August) raises awareness about seniors' contributions to the economy – Silver economy and the challenges they face.

It is distinct from the International Day of Older Persons (1st October).

Significance of Silver Economy

- 第 Growth Scenario: India's elderly population will double (>20%) by 2046 (UNFPA) with senior citizens creating opportunities in healthcare, technology, insurance, housing, and wellness.
- **♯ Growth Drivers:**
 - Active Aging: Aging population is healthier, more independent now, and contributes economically, especially in the 45-64 age group.
 - ❖ Home Care Services: Demand for healthcare grows as ~75% of elderly face chronic diseases.
 - Health Tech: Telehealth, remote monitoring and wearable devices transforming elderly care.
 - Ayush-based Services: Rising demand for Ayurveda and traditional medicine for preventive care.

	INDIA'S SILVER ECONOMY				
	Challenges		Reforms		
1.	Healthcare Gaps: Limited geriatric care, high OOPE, and low insurance coverage (only 18% insured).	1.	Expand geriatric care (preventive, promotive, rehabilitative focus) and promote health literacy among seniors.		
2.	Financial Insecurity: Lack of pensions/savings, especially in the informal sector, makes them dependent on family.	2.	Design age-specific insurance (\psi OOPE), expand Atal Pension Yojana (APY) , and promote reskilling via the SACRED Portal .		
3.	Low Digital Literacy and Access: Restricts them from availing telemedicine, e-commerce, or digital financial services.	3.	Organising digital literacy campaigns besides providing user-friendly tech platforms for finance, and social services.		
4.	Loneliness and Mental Health Issues: Breakdown of family systems, urban migration, and changing family structures.	4.	Social engagement, peer-support networks to combat mental health issues along with Community sensitisation.		
5.	Policy Gaps: Lack of age-friendly infrastructure and targeted policies.	5.	Integrate elderly care into Ayushman Arogya Mandir , encourage PPPs (SAGE Programme) for eldercare infra & services.		
6.	Workforce Barriers: Age stereotypes and limited flexible work options, despite potential for active aging.	6.	Reskilling and flexible work opportunities via SACRED Portal to help retain economic independence.		

CAG REVIEW OF THE FRBM ACT

The Comptroller and Auditor General (CAG) presented its review of the FRBM Act, 2003 in Parliament, showing India's steady progress towards macroeconomic stability.

策 CAG conducts this annual review to assess government's compliance with FRBM targets.

KEY HIGHLIGHTS OF THE CAG REVIEW					
• Central Govt Debt: ↓ to 57% of GDP (March 2024), down from 61.38% (FY20-21).	•				

Fiscal Responsibility and Budget Management (FRBM) Act, 2003

- Purpose: Reduce fiscal deficits Amendments: 2004, and ensure macroeconomic stability.
 - **2015, and 2018** to revise deficit and debt reduction goals, offering fiscal management flexibility during crises.
 - 2012, Medium-Term Fiscal Policy (MTFP): Outlines 3-year rolling targets for key fiscal indicators **Revenue Deficit, Fiscal Deficit**, and Central Govt Debt as a percentage of GDP.



FRBM Targets (2018 Amendment):

- # ↓ General Government Debt (excludes inter-governmental liabilities) to 60% of GDP and Central Govt Debt to 40% by FY24-25.
- # Fiscal Deficit Target: FY24-25: Below 4.8% of GDP (fulfilled) | FY25-26: Below 4.5% of GDP.
- # Additional Loan Guarantees: On the security of Consolidated Fund of India, not >0.5% of GDP in any FY.

AGNI-5 MISSILE

India successfully test-fired Agni-5, a nuclear-capable Intermediate-Range Ballistic Missile (IRBM) to validate operational and technical parameters and maintain credible minimum deterrence.

- # About: Advanced Surface-to-Surface ballistic missile (SSBM) developed under India's Integrated Guided Missile Development Programme (IGMDP).
- **% Range:** ~5,000 km.
- **5 Countries with Multiple Independently Targetable Reentry Vehicle** (MIRV) Tech: USA, Russia, China, France, and India (enabled by Agni-5).
- **3.** Other 4 missiles developed under IGMDP: Prithvi, Trishul, Nag, and Akash.

Classification of SSBM

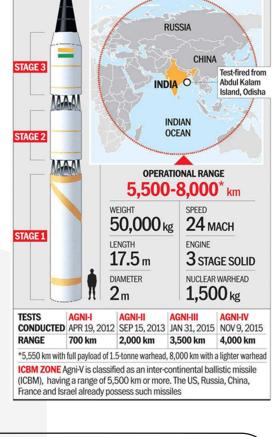
- 器 Short-Range (SRM): <1000 km
- 第 Intermediate-Range (IRBM): 3,000-5,500 km
- Medium-Range (MRBM): 1,000-3,000 km
- 器 Intercontinental (ICBM): >5,500 km

RUBELLA

WHO has officially declared Nepal rubella-free.

- **Rubella (German measles):** Highly contagious viral infection caused by the rubella virus (single-stranded RNA virus); causes mild fever and rash.
- Risk and Impact: Serious risks to pregnant women (miscarriage, stillbirth, CRS in infants); Mild in children and adults.
- # Prevention and Vaccination: Measles-Rubella (MR) vaccine - most effective preventive measure.
- **♯ India's Initiatives: National Zero Measles-Rubella** Elimination Campaign (2025-26) under UIP, Mission Indradhanush and Intensified Mission Indradhanush.

India's Vaccination Coverage: >90% of children received both MR vaccine doses (2024–25).



AGNI-V MISSILE

SLINEX-25

12th edition of India-SL naval exercise SLINEX-25 concluded in Colombo.

- **Tribute:** Honored Indian soldiers at the Indian Peace Keeping Force (IPKF) Memorial for their service during 1987-1990 peacekeeping operations in Sri Lanka.
- **Significance:** Strengthens India-SL maritime cooperation, aligned with India's **MAHASAGAR** policy.
- **Other Exercises: Mitra Shakti** (Army) held alternately in both countries.
- Humanitarian Role: India is Sri Lanka's 'first responder' in Humanitarian Assistance and Disaster Relief.



Congenital Rubella Syndrome (CRS) causes hearing impairment, cataracts, heart defects,

and developmental delays, making rubella

a leading cause of preventable congenital

disabilities globally.

