



Daily Current Affairs



To The Point by Dhananjay Gautam

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1 Namo Drone Didi Scheme

Context: The Indian government recently released the **Operational Guidelines** for the *Namo Drone Didi Scheme*. This initiative, governed at the national level by an **Empowered Committee of Secretaries** from key departments, is set to promote women's empowerment and technological advancement in agriculture.

**About the Namo Drone Didi Scheme:**

- **Type:** *Central Sector Scheme*, part of the **DAY-NRLM (Deendayal Antyodaya Yojana – National Rural Livelihood Mission)**.
- **Objective:** Empower **Self-Help Groups (SHGs)**, particularly women's SHGs, by enabling them to provide drone rental services for agricultural purposes. The scheme targets support for **14,500 SHGs** across India from 2024 to 2026.
- **Ministry:** Ministry of Agriculture & Farmers Welfare.

Key Features:

- **Financial Assistance:**
 - Provides **80% subsidy** (up to Rs 8 lakh) for SHGs to buy drones.
 - Additional financing is available through the **Agriculture Infrastructure Financing Facility (AIF)**, offering a **3% interest subvention on loans**.
- **Drone Package:**
 - Includes **spray assemblies, batteries, cameras, chargers, and measurement tools**.
 - Extra batteries and propellers are included, allowing drones to cover **up to 20 acres per day**.
- **Training Program:**
 - Each SHG will assign a **drone pilot** who will receive a **15-day training** program focused on agriculture-related tasks such as nutrient and pesticide spraying.
- **Implementation and Oversight:**
 - **Lead Fertilizer Companies (LFCs)** will coordinate the scheme at the state level, working with state departments, drone manufacturers, and SHG federations.
 - An **IT-Based Drone Portal (MIS)** will provide real-time monitoring, fund management, and drone usage tracking.

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Significance:

1. **Empowers Women:** Offers income-generating opportunities for SHGs by establishing them as drone service providers.
2. **Modernizes Agriculture:** Introduces **precision agriculture** for efficient fertilizer and pesticide application, increasing productivity.
3. **Reduces Farming Costs:** Saves time and labor, making advanced farming more affordable for farmers.
4. **Promotes Rural Skill Development:** Enhances digital literacy and drone operation skills in rural areas.
5. **Supports Government Initiatives:** Aligns with **DAY-NRLM** and the **Kisan Drones** program, furthering rural empowerment and sustainable agriculture.
6. **Enhances Technological Access:** Brings advanced technology to rural regions, promoting inclusivity in the agricultural sector.

Challenges and Concerns:

1. **Financial Burden on SHGs:** SHGs must cover the remaining 20% of the drone cost, which may be challenging for financially vulnerable groups, especially if the economic returns do not meet expectations.
2. **Limited Training for Technical Complexity:** The **15-day training** may be insufficient for managing complex tasks or troubleshooting technical issues in drone operation.
3. **Bureaucratic Layers:** Dependence on Lead Fertilizer Companies for coordination may cause bureaucratic delays in implementation.
4. **Environmental and Health Risks:** There are concerns about potential harm to **biodiversity** in ecologically sensitive areas, such as the Nilgiris district in Tamil Nadu, where conservationists worry that aerial spraying may impact pollinators and fragile ecosystems.

Way Ahead:

1. **Enhanced Financial Support:** Consider grants or full subsidies to cover the remaining 20% of costs, minimizing financial stress for SHGs.
2. **Extended Training Programs:** Offer comprehensive training and refresher courses to better equip SHGs for handling technical and operational challenges.
3. **Environmental Safeguards:** Establish guidelines for safe pesticide application via drones, particularly near ecologically sensitive zones, to protect biodiversity and prevent environmental damage.

Conclusion: The *Namo Drone Didi Scheme* represents a significant step towards integrating women's empowerment with technology-driven agriculture, yet its success will depend on addressing financial, technical, and environmental concerns effectively.

2 Dedicated Freight Corridors (DFCs)

Context: A recent study by the *University of New South Wales* highlights that **Dedicated Freight Corridors (DFCs)** have had a positive impact on India's GDP. The study analysed data on freight costs, industry inputs, and population statistics, revealing significant benefits for the western regions and lower per-capita GDP states through reduced transportation costs.



Key Findings from the Study:

- **Revenue Boost for Indian Railways:** Between FY 2018-19 and FY 2022-23, DFCs increased Indian Railways' revenue by **2.94%**.
- **Lowered Commodity Prices:** Improved efficiency and reduced freight costs on DFCs have contributed to a **0.5% reduction in commodity prices**.
- **Regional Economic Benefits:** The study found that DFCs significantly benefited states with lower per-capita GDP, particularly in western India.

What are Dedicated Freight Corridors (DFCs)?

Dedicated Freight Corridors are **specialized railway lines exclusively for freight transport**, designed to allow faster, higher-capacity movement of goods. These corridors enhance the efficiency of supply chains and support export-import activities, helping to reduce logistics costs across India.

- **Initiation:** The DFC initiative was first announced in the *Railway Budget for FY 2005-06*.
- **Special Purpose Vehicle:** The *Dedicated Freight Corridor Corporation of India Limited (DFCCIL)* was created in 2006 to oversee the construction and operation of DFCs.

Current Status of DFC Projects: The Ministry of Railways launched two major DFCs in 2006:

1. Eastern Dedicated Freight Corridor (EDFC):

- **Length:** 1,337 km from **Sonnagar, Bihar to Sahnewal, Punjab**.
- **Status:** Completed.

2. Western Dedicated Freight Corridor (WDFC):

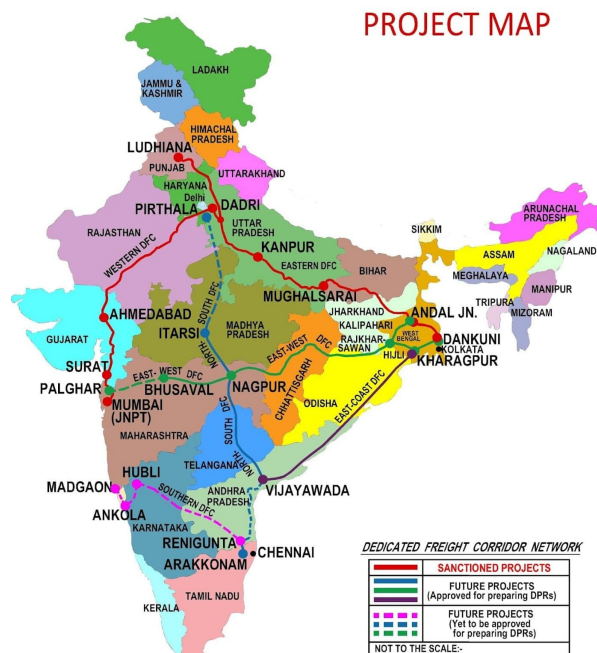
- **Length:** 1,506 km from **Jawaharlal Nehru Port, Mumbai to Dadri, Uttar Pradesh**.
- **Status:** 93% commissioned, with full completion expected by **December 2025**.

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Upcoming DFC Projects: India has proposed four additional DFCs to expand the network:

- **East-West DFC:** Kolkata to Mumbai
- **North-South DFC:** Delhi to Chennai
- **East Coast DFC:** Kharagpur to Vijayawada
- **Southern DFC:** Chennai to Goa



Importance of Dedicated Freight Corridors

1. **Reducing Congestion on Rail Networks:** DFCs alleviate congestion on the **Golden Quadrilateral** rail network, which connects India's major metro cities (Delhi, Mumbai, Chennai, and Howrah) and is currently overburdened by high traffic.
2. **Improving Freight Efficiency and Reducing Travel Time:** DFCs provide **dedicated tracks for freight**, ensuring faster, uninterrupted goods movement, and reducing transit times.
3. **Economic Impact and Revenue Growth:** DFCs aim to cut logistics costs for industries and improve Indian Railways' revenue. Between FY 2018-19 and FY 2022-23, DFCs contributed **2.94% revenue growth** for Indian Railways.
4. **Lower Freight Costs and Reduced Commodity Prices:** DFCs improve the efficiency of freight movement, lowering transportation costs and subsequently reducing commodity prices, benefiting the broader economy.

Conclusion: Dedicated Freight Corridors are transforming India's transportation infrastructure by enhancing efficiency, supporting economic growth, and reducing logistics costs. The completion of ongoing and proposed DFCs is expected to play a vital role in boosting India's trade, industry, and overall economic competitiveness.

3 Supreme Court Directions on Permanent Remission for Convicts

Context: The Supreme Court of India recently issued directives to improve transparency and standardization in granting **permanent remission** to convicts. This move addresses the need for clear guidelines, timely communication, and greater accessibility to remission policies across the country.



Key Points of the Ruling

1. Policy Accessibility and Information:

- States must make remission policies accessible to all convicts by providing copies in prisons and publishing them on government websites.
- Jail authorities are required to inform eligible convicts of these remission policies.

2. **Timely Communication of Decisions:** States and Union Territories must notify convicts within one week if their remission application is rejected.

3. **Updated Policy Availability:** Any modifications to remission policies must be promptly updated in prisons and online.

What is Permanent Remission?

Permanent remission refers to reducing or shortening a convict's sentence or allowing early release based on factors such as good conduct or special circumstances. Legal provisions under which remission can be granted include:

- **Article 72 (President's Power):** Grants the President the authority to pardon, reprieve, or remit punishment, including for death sentences, in consultation with the Union Cabinet.
- **Article 161 (Governor's Power):** Empowers state Governors to grant remission for sentences passed by courts within the state, based on the state government's advice.
- **Section 432, Criminal Procedure Code (CrPC):** Allows central or state governments to grant remission or suspend a convict's sentence, either temporarily or permanently, depending on specific circumstances.

Types of Remission:

1. **Full Remission:** The convict's sentence is completely removed, leading to immediate release.
2. **Partial Remission:** The duration of the sentence is reduced, but the convict is not released immediately.
3. **Special Remission:** Granted as part of special amnesty, often on national holidays or for certain categories of prisoners (e.g., elderly or sick).

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Guidelines for Premature Release: *Laxman Naskar v. Union of India (2000)*

In this landmark case, the Supreme Court outlined criteria for considering premature release:

- Whether the crime was an isolated act, without broader social impact.
- Likelihood of the convict committing future crimes.
- Whether the convict has lost the capacity to commit a crime.
- Whether continued confinement serves any purpose.
- The socio-economic condition of the convict's family.

Landmark Cases and Principles on Remission:

Several cases, including *Maru Ram v. Union of India (1981)* and *Union of India v. V. Sriharan (2016)*, emphasize key principles in remission:

- **Discretionary Powers:** The President and Governor have discretionary powers to grant remission.
- **Executive-Judiciary Relationship:** Judiciary reviews remission decisions to ensure alignment with justice.
- **Focus on Rehabilitation:** Good conduct, rehabilitation, and judicial oversight are essential for granting remission, especially for life convicts and death row inmates.

Bail Provisions in India:

The **Code of Criminal Procedure (CrPC), 1973**, governs bail provisions, with updates introduced through the **Bharatiya Nyaya Sanhita (BNS), 2023**. Common types of bail include:

1. **Regular Bail:** Granted during a trial upon meeting court conditions.
2. **Anticipatory Bail:** For those who fear arrest in non-bailable offenses, allowing advance bail.
3. **Interim Bail:** Short-term bail granted pending a regular bail decision.
4. **Default Bail:** Granted when the accused isn't released within a specified period, typically 90 days in non-bailable offenses.

Conclusion: Permanent remission serves as a crucial instrument for offering a second chance to rehabilitated convicts or those with special circumstances. However, this power is regulated by strict legal standards and requires a comprehensive review of each convict's situation to ensure the decision aligns with justice and public interest. The Supreme Court's directives aim to create a consistent, fair, and transparent remission process across states, ultimately reinforcing the importance of reform and rehabilitation in the criminal justice system.

4 G-20 DRRWG Ministerial Meeting in Brazil

Context: India recently participated in the G-20's Disaster Risk Reduction Working Group (DRRWG) ministerial meeting in Brazil, where G20 ministers and delegates adopted a **Ministerial Declaration** emphasizing accelerated action to implement the **Sendai Framework for Disaster Risk Reduction (DRR)**.

Key Highlights of the Ministerial Declaration:

The declaration underscored:

- The importance of mobilizing financial resources for disaster risk reduction.
- The need to adopt **nature-based solutions** and **ecosystem-based approaches** to effectively manage disaster risks.

**About G-20's Disaster Risk Reduction Working Group (DRRWG)**

- **Established:** 2023, during India's G-20 Presidency.
- **Objective:** Integrate disaster risk reduction into G-20 activities, reinforcing collective action against disasters.
- **Five Priority Areas:**
 1. **Early Warning Systems:** Improving alert mechanisms for early disaster warning.
 2. **Disaster-Resilient Infrastructure:** Strengthening infrastructure to withstand disasters.
 3. **DRR Financing:** Ensuring adequate financial resources for disaster preparedness and response.
 4. **Disaster Recovery, Rehabilitation, and Reconstruction:** Enhancing post-disaster rebuilding efforts.
 5. **Nature-Based Solutions and Ecosystem Approaches for DRR:** Utilizing natural solutions to mitigate disaster risks.

Sendai Framework for Disaster Risk Reduction (2015-2030)

The **Sendai Framework** is a 15-year, non-binding agreement that replaced the **Hyogo Framework for Action (2005-2015)**. It was adopted at the **Third United Nations World Conference on Disaster Risk Reduction** held in 2015 in Sendai, Japan.

Objectives: The framework aims to significantly reduce disaster risk and losses in terms of:

- Lives, livelihoods, and health.
- Economic, physical, social, cultural, and environmental assets.

Priorities of the Sendai Framework:

1. **Understanding Disaster Risk:** Recognizing the need for a comprehensive understanding of risks associated with various hazards.
2. **Strengthening Disaster Risk Governance:** Improving policies and frameworks to manage and reduce risks effectively.
3. **Investing in Disaster Risk Reduction for Resilience:** Allocating resources to enhance resilience against disasters.
4. **Enhancing Disaster Preparedness for Effective Response:** Preparing adequately for response and recovery to mitigate impact.
5. **Building Back Better:** A focus on recovery, rehabilitation, and reconstruction efforts to strengthen resilience against future disasters.

The **G-20's DRRWG** and its alignment with the **Sendai Framework** reflect global efforts to enhance resilience, particularly through financial mobilization, nature-based solutions, and comprehensive DRR strategies. India's active role in this working group underscores its commitment to strengthening disaster preparedness and risk reduction both domestically and globally.

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5 Marine Protected Areas (MPAs): Enhancing Biodiversity and Nutritional Security

Context: A recent study highlights the role of **Marine Protected Areas (MPAs)** in conserving biodiversity and improving nutritional security, particularly for coastal communities. The study emphasizes that sustainable MPA management can have substantial benefits for global fisheries, revenue, and nutrition.

Key Highlights of the Study:

- **Sustainable-Use MPAs** contribute:
 - **13.6% of global catch**
 - **14% of fisheries revenue**
 - **13.7% of nutrient supply** to the global population
- **7% of global catches** come from within **Exclusive Economic Zones (EEZs)**.
- Establishing MPAs in **nutritionally vulnerable coastal regions** can enhance **human health and nutrition** by ensuring sustainable fish stocks and marine resources.

**Understanding Marine Protected Areas (MPAs):**

MPAs are specific areas in oceans where **human activities** are **regulated more strictly** than in surrounding waters to protect **marine biodiversity**. Managed by various levels of government and indigenous authorities, MPAs help preserve both **natural** and **historical marine resources**.

Significance of MPAs:

1. **Genetic Reservoirs:** Provide sources of genetic material to help recover areas affected by **pollution** or **overfishing**.
2. **Refuge for Marine Species:** Offer safe zones for countless species, protecting them from **overfishing, habitat destruction, and pollution**.
3. **Research Baselines:** Serve as control sites for **scientific research** on marine ecology.
4. **Tourism and Recreation:** Attract **nature-based tourism**, supporting local economies.
5. **Climate Change Mitigation:** Aid in **carbon sequestration** and improve ecosystems' resilience to climate change.

Challenges in Conserving MPAs:

- **Enforcement Issues:** Difficulties in enforcing regulations across vast marine areas.
- **Resource Demands:** Requires significant financial and human resources for effective management.
- **Impact on Local Livelihoods:** Restrictions on fishing can affect the income of local communities dependent on marine resources.

Global Initiatives for Marine Biodiversity Protection:

1. **Kunming-Montreal Global Biodiversity Framework:** Aims to protect **30% of oceans and lands by 2030**.
2. **High Seas Treaty:** The **Agreement on Marine Biodiversity of Areas beyond National Jurisdiction (BBNJ)**, commonly known as the **High Seas Treaty**, addresses biodiversity conservation in areas outside national jurisdiction.

Marine Protected Areas in India:

- **Gulf of Mannar Marine National Park** (Tamil Nadu)
- **Lothian Island** (West Bengal)
- **Gahirmatha Marine Sanctuary** (Odisha)

Conclusion: MPAs play a critical role in **biodiversity conservation, nutritional security, and climate resilience**, especially for **coastal and marine-dependent communities**. With global support and sustainable management, MPAs can ensure both ecological preservation and human well-being.

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6 Tumaini Festival

The **Tumaini Festival** in Malawi is a unique cultural event held annually at the **Dzaleka Refugee Camp**. Since its founding in **2014**, the festival has served as a powerful platform for **refugees and local Malawians** to connect through **music, art, dance, and crafts**, fostering a sense of community, solidarity, and hope. It is notably the only festival of its kind hosted within a refugee camp and is organized and managed by the refugees themselves.



Highlights of the Tumaini Festival:

- **Global Reach:** The festival features performances from artists worldwide, attracting thousands of attendees each year.
- **Cultural Exchange:** It offers a diverse lineup of **music, dance, theater, and visual arts**, celebrating both local and global cultures.
- **Award-Winning Impact:** In **2024**, the Tumaini Festival was honored with the **Cultures of Resistance Award** for its role in promoting peace and cultural resilience.

About Dzaleka Refugee Camp:

Located in **Malawi**, Dzaleka is the country's only permanent refugee camp, established in **1994** to shelter displaced people from **Burundi, Rwanda, and the Democratic Republic of Congo**. Over the years, it has also received refugees from **Somalia, Ethiopia**, and other regions.

Key Facts about Malawi:

- **Geography:** A landlocked nation in **Southeastern Africa**, covering **118,484 sq. km**, bordered by **Tanzania, Mozambique, and Zambia**.
- **Capital:** Lilongwe
- **Official Languages:** English and Chichewa
- **Currency:** Malawi kwacha (MWK)
- **Natural Landmarks:** Known for its **highlands** and **Lake Malawi** (Lake Nyasa), one of the world's deepest lakes.
- **Economy:** Malawi relies heavily on **agriculture**, employing over **80%** of its population, yet remains one of the poorest countries globally.

The Tumaini Festival not only showcases the **artistic talents** of refugees and locals but also exemplifies the resilience and cultural richness that can emerge from the challenges of displacement.

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7 Central Water Commission (CWC)

Context: The Central Water Commission (CWC) is India's leading technical organization for water resource management. It functions under the Ministry of Jal Shakti, specifically the Department of Water Resources, River Development, and Ganga Rejuvenation.

Key Functions of the CWC

- **Water Resource Development:** Oversees projects for flood control, irrigation, navigation, drinking water supply, and water power development.
- **Coordination and Consultation:** Works with State Governments to develop and implement water management schemes.
- **Project Execution:** Undertakes the planning, investigation, and construction of major water projects when necessary.



Organizational Structure:

- **Leadership:** Led by a Chairman with the rank of Ex-Officio Secretary to the Government of India.
- **Three Main Wings:**
 - Designs and Research (D&R) Wing
 - River Management (RM) Wing
 - Water Planning and Projects (WP&P) Wing
- **Training Facility:** The National Water Academy in Pune trains engineers from both central and state services under the Chairman's guidance.

Recent Findings on Glacial Lakes:

According to a 2024 CWC report, the area of glacial lakes and other water bodies across the Himalayan region has increased by 10.81% from 2011 to 2024 due to climate change. This expansion heightens the risk of glacial lake outburst floods (GLOFs), which occur when the boundaries of these lakes, often composed of unstable ice or loose debris, break and release large volumes of water, potentially causing downstream flooding.

Understanding Glacial Lakes and GLOFs:

- **Glacial Lakes:** These lakes form in depressions left behind by retreating glaciers, filling with meltwater. The more a glacier recedes, the larger and more hazardous the lake becomes.
- **Glacial Lake Outburst Floods (GLOFs):** When the natural dam of ice or loose debris fails, massive floods can occur, posing significant risks to downstream communities.

The CWC plays a crucial role in monitoring these developments and strategizing responses to manage and mitigate such natural hazards effectively.

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8 Orphan drugs

Context: Orphan Drugs are specialized pharmaceutical agents designed to treat rare, often serious or life-threatening diseases. In India, the development, affordability, and accessibility of these drugs face considerable challenges compared to countries like the United States and the European Union.



Key Aspects of Orphan Drugs:

- **Purpose:** These drugs target **rare diseases**, which, though they affect only a small fraction of the population, can lead to severe and chronic health issues.
- **Categories:** Orphan drugs cater to conditions such as:
 - **Genetic Disorders:** e.g., cystic fibrosis, Duchenne muscular dystrophy
 - **Rare Cancers:** e.g., neuroblastoma, gliomas
 - **Metabolic Disorders:** e.g., Gaucher's disease, Fabry disease
 - **Autoimmune Conditions:** e.g., systemic sclerosis

Definition and Regulation of Orphan Drugs:

- **India's Regulatory Framework:** India currently lacks a formal prevalence-based definition for orphan drugs. However, the **National Policy for Rare Diseases (NPRD) of 2021** provides guidance on diagnosing and treating rare diseases, albeit with limited specificity.
- **International Standards:** In countries like the U.S. and EU, orphan drug designation generally requires that:
 - The disease has **low prevalence**.
 - There are **no existing approved treatments**, or the orphan drug offers notable advantages over current options.

Incentives for Orphan Drug Development:

To encourage the development of orphan drugs, various incentives are offered, particularly in the U.S. and EU, such as:

- **Market Exclusivity:** Extended market protection periods.
- **Tax Credits:** For research and development costs.
- **Fee Waivers:** Reduced regulatory fees to ease the financial burden of drug approval.

India's approach to orphan drugs is evolving, but it faces challenges in creating a comprehensive support system to make these treatments affordable and accessible.

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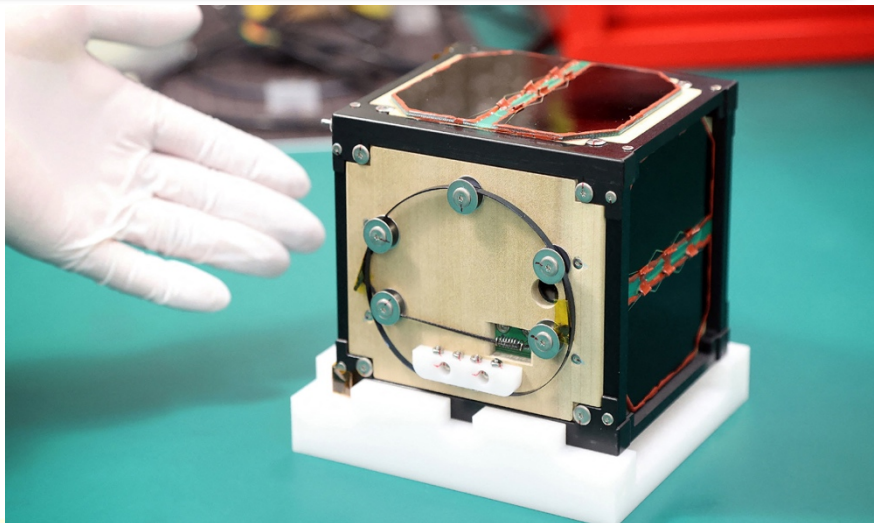
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9 LignoSat

LignoSat is the world's first wooden satellite, developed by Japanese researchers as an innovative step in space exploration. This satellite is intended to demonstrate the viability of using timber in space technology, potentially opening up new environmentally friendly materials for lunar and Mars exploration.



About LignoSat:

- **Name Origin:** The name "LignoSat" combines "ligno" (Latin for wood) and "satellite."
- **Developers:** Created through collaboration between **Kyoto University** and **Sumitomo Forestry Co.**
- **Objective:** LignoSat aims to explore the use of **eco-friendly, cost-effective materials** in space exploration, with a particular focus on renewable wood.

Construction and Launch:

- **Material:** Made from **magnolia wood**, selected for its high durability and adaptability.
- **Mission Path:** LignoSat will be sent to the **International Space Station (ISS)** on a SpaceX rocket. Once on the ISS, it will be released from Japan's experimental module to test its durability and resilience in space.
- **Data Collection:** Researchers will receive data on how the wooden satellite withstands the harsh conditions of space, including extreme temperatures and potential structural strain.

Why Wood?

Wooden satellites offer a **sustainable alternative** to metal. Unlike metal-based satellites, which generate polluting metal particles when re-entering Earth's atmosphere, wooden satellites are expected to **burn up cleanly** and minimize air pollution. This advantage positions wooden satellites as a promising green technology in space exploration.

10 Mount Lewotobi Laki-Laki

Context: Mount Lewotobi Laki-Laki recently erupted, resulting in the tragic loss of at least 10 lives and prompting evacuations in nearby villages in eastern Indonesia.

**About Mount Lewotobi Laki-Laki:**

- **Location:** Situated on **Flores Island** in **East Nusa Tenggara** province, Indonesia.
- **Twin-Volcano System:** Mount Lewotobi Laki-Laki is part of a **twin-volcano system**, viewed by locals as a male and female pair. The recent eruption occurred at the male volcano, **Lewotobi Laki-Laki**, while the adjacent female volcano is called **Lewotobi Perempuan**.
- **Volcano Type:** Both mountains are **stratovolcanoes**—steep, cone-shaped volcanoes known for their layered structure formed by successive lava flows.

Indonesia's Volcanic Context:

- Indonesia is highly prone to volcanic activity due to its location on the **Pacific Ring of Fire**, where intense tectonic activity leads to frequent volcanic eruptions, earthquakes, and tsunamis.

What are Stratovolcanoes?

- **Structure:** Stratovolcanoes are **tall, steep, and cone-shaped** in contrast to flatter shield volcanoes.
- **Location and Formation:** They commonly form above **subduction zones** where tectonic plates converge and one plate sinks beneath another.
- **Global Presence:** Stratovolcanoes account for about **60% of Earth's volcanoes** and are primarily found in regions like the **Ring of Fire**.
- **Lava Composition:** Their eruptions often involve **andesitic and dacitic lava**, which is cooler and more viscous than basaltic lava found in shield volcanoes.

The Ring of Fire:

- The **Ring of Fire** is a horseshoe-shaped zone around the Pacific Ocean, marked by numerous active volcanoes and frequent seismic activity due to tectonic plate interactions, making it one of the world's most geologically dynamic regions.

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