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Time: 45 Min

Date: 9-07-2025

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INDIA AND BRAZIL HELD BILATERAL TALKS

Context

- Prime Minister Modi and Brazilian President **held bilateral talks in Brasilia a day after the BRICS summit.**

Major Outcomes

- **India and Brazil signed six agreements** covering cooperation in security, digital infrastructure, renewable energy, agriculture, and intellectual property.
  - The agreements include a pact on combating international terrorism and transnational organized crime, as well as a memorandum on the exchange of large-scale digital solutions to support digital transformation.
- Both countries also announced the **establishment of a ministerial-level mechanism** to monitor trade, commerce, and investment.
- The leaders decided a strategic roadmap to **further strengthen bilateral ties over the next decade around five priority pillars:**
  - defense and security;
  - food and nutritional security;
  - energy transition and climate change;
  - digital transformation and emerging technologies;
  - industrial partnerships in strategic areas.
- India and Brazil set a target of **almost doubling their bilateral trade to $20 billion over the next five years.**
- Prime Minister Narendra Modi was conferred with **Brazil's highest civilian award,** the **Grand Collar of the National Order of the Southern Cross.**

Brief on India- Brazil Relations

- **Diplomatic Relations:** Relations were established in **1948**, and the two countries have been **Strategic Partners since 2006.**
  - Both sides also have several **Joint Working Groups** to take forward sectoral cooperation.
- **Trade Relations:** Brazil is currently **India's largest trade partner** in South America.
  - Two-way trade was **worth $12.2 billion in 2024-25,** with Indian exports amounting to **$6.77 billion**.
  - Both Nations have established **Trade Monitoring Mechanism** as an institutional mechanism to monitor and identify bottlenecks in bilateral trade and take appropriate measures to address them.
- **Defence & Security Cooperation:** India and Brazil signed an agreement in 2003 for cooperation in defence. Meetings of the Joint Defence Committee (JDC) are held as an institutionalized mechanism for defence cooperation.
- **Security Cooperation:** Established a Strategic Dialogue mechanism in 2006 to cover regional and global issues of mutual concern.
  - The two countries have an Extradition Treaty, Mutual Legal Assistance Treaty in Criminal Matters and an Agreement of Transfer of Sentenced Persons in place.
- **Space Cooperation:** Both signed a framework agreement for peaceful use of outer space in 2004 as well an Agreement for inter-institutional cooperation between the space agencies.
  - Both countries have been collaborating in Data sharing and satellite tracking of Indian satellites.
- **Multifora Relations:** India and Brazil share a very close and multifaceted relationship both at bilateral level as well as in plurilateral fora such as BRICS, BASIC, G-20, G-4, India, Brazil, and South Africa (IBSA) Dialogue Forum, International Solar Alliance, as well as in the larger multilateral bodies such as the UN, WTO, UNESCO, and WIPO.

Relevance of India–Brazil Cooperation in a Changing World

- **UNSC Reform:** India and Brazil advocate expansion in both permanent and non-permanent categories, reflecting the aspirations of underrepresented regions.
- **Global South Voice:** Both champion reforms in international institutions (UN, IMF, World Bank) to reflect contemporary realities and the needs of developing countries.
- **Bioenergy and Global Biofuels Alliance:** As founding members, both countries offer scalable biofuel solutions for climate change mitigation.
- **COP30 and TFFF (Tropical Forests Forever Fund):** India supports Brazil's climate leadership at COP30, emphasizing forest preservation and climate finance.

- **Bilateral Investment and Trade Mechanism:** Removing trade barriers, improving visa processes, and promoting local currency financing align with evolving global trade dynamics.
- **Pharma and Health Security:** Joint R&D in vaccines and tropical diseases boosts health sovereignty in the Global South.
- **Global Leadership on Food Security:** India and Brazil, as major food producers, jointly call for **ending hunger by 2030** through multilateral efforts like the Global Alliance Against Hunger and Poverty.
- **Joint STI Innovation:** Bilateral R&D in AI, quantum tech, and renewable energy drives technological self-reliance and inclusive innovation.

Challenges in the Relations

- **Geopolitical Competition:** Both India and Brazil are emerging powers with aspirations for greater global influence.
  - This can sometimes lead to competition, particularly in international forums like the UN, where both countries seek greater representation and influence.
- **Trade Barriers:** Trade between India and Brazil has not reached its full potential, partly due to various trade barriers and protectionist measures in both countries. These barriers hinder the growth of bilateral trade and investment.
- **Infrastructure and Connectivity:** Improving infrastructure and connectivity between the two countries remains a challenge.
  - Better air and sea connectivity, as well as improved transportation links, are essential for boosting trade and people-to-people contacts.
- **Regional Priorities and Strategic Autonomy:** Brazil prioritizes Latin American integration and relationships within the Western Hemisphere.
  - India remains more focused on its immediate neighborhood and Indo-Pacific, creating limited overlap in regional strategic focus.

Way Ahead

- India–Brazil relations carry vast untapped potential, but current challenges—ranging from trade and connectivity to strategic divergence—must be addressed through sustained dialogue, institutional mechanisms, and political will.
- Deeper engagement, better follow-up of agreements, and enhanced people-to-people contact will help realize the full promise of this South–South partnership in a changing global order.

Source: TH

PARAKH RASHTRIYA SARVEKSHAN 2024

Context

- Recently, the **Performance Assessment, Review, and Analysis of Knowledge for Holistic Development Rashtriya Sarvekshan (PARAKH RS)**, formerly known as the National Achievement Survey (NAS), released its findings.

About PARAKH RS

- PARAKH is a national assessment body set up under the **National Council of Educational Research and Training (NCERT)** and mandated by the **National Education Policy (NEP) 2020.**
- **Objective:** To standardize assessment practices across the states and to provide reliable data on students' learning outcomes.
- **2024 Survey Coverage:**
  - Assessed over **21 lakh students** from 74,229 schools across 781 districts.
  - Subjects included language and mathematics for all grades, "**The World Around Us"** for Grades 3 and 6, and science and **social science** for Grade 9.
  - **2.7 lakh teachers and school leaders** also participated through questionnaires.

Key Findings of the Survey

- **Top Performing States/UTs:** Punjab, Kerala, Himachal Pradesh, Dadra & Nagar Haveli and Daman & Diu, Chandigarh.
- **Low Performing Districts:**
  - **Grade 3:** Sahebganj (Jharkhand), Reasi and Rajouri (J&K)
  - **Grade 6:** North, South, and South West Garo Hills (Meghalaya)
  - **Grade 9:** Shi Yomi (Arunachal Pradesh), South West and North Garo Hills (Meghalaya).
- **Grade-Wise Learning Outcomes:**
  - **Grade 3: Only 55%** could order numbers up to 99; 54% understood basic multiplication/ division.

- **Grade 6: 44%** identified environmental/social elements; 38% made predictions based on patterns.
- **Grade 9: 45%** understood the Constitution and national movement; 54% extracted key points from texts.

Concerns Arising from the Survey

- **Declining Competency with Advancing Grades:** There is a notable drop in learning outcomes from Grade 3 to Grade 9, especially in conceptual understanding and application.
- **Urban-Rural and Regional Inequities:** Northeastern states like Meghalaya and Arunachal Pradesh continue to lag in foundational literacy and numeracy skills.
- **Public School Challenges:** Government-aided and state schools underperform in mathematics and sciences, particularly in middle and high school levels.

Government Initiatives for Learning Improvement

- **National Education Policy (NEP) 2020:** Focus on foundational literacy and numeracy by **Grade 3**; promotes experiential, competency-based learning, and equitable access to education.
- **NIPUN Bharat Mission:** Aims for all children to achieve foundational literacy and numeracy by **2026–27** through activity-based learning, teacher training, and parental engagement.
- **Samagra Shiksha Abhiyan:** Integrated school education scheme aimed at improving quality, access, and equity from pre-primary to Class 12, with emphasis on inclusive education and gender parity.
- **Digital Initiatives:** DIKSHA portal, PM e-Vidya, and SWAYAM for content dissemination, e-learning modules, and teacher training.
- **TALA (Technology-Assisted Learning and Assessment):** Encourages the use of AI, adaptive assessments, and digital tools for improving learning and tracking student progress.

Way Ahead

- **Focused Remedial Education:** Introduce targeted bridge programs and customised teaching-learning materials for underperforming regions and schools.
- **Teacher Training and Accountability:** Regular capacity-building workshops and learning outcome-based appraisals for teachers are essential.
- **Strengthening Foundational Learning:** Ensure rigorous implementation of NIPUN Bharat, particularly in low-performing districts.
- **Leverage Data for Local Action:** District-level data from PARAKH should be used by local education officers for context-specific policy measures.
- **Strengthening Assessment Systems:** Move beyond rote-based evaluations to competency-based assessments, as envisioned by NEP 2020.

Source: TH

JAL JEEVAN MISSION

Context

- The Jammu & Kashmir Assembly's House Committee is currently probing allegations of irregularities in the implementation of the Jal Jeevan Mission (JJM) in the region.

Background

- During the Budget Session, **concerns were raised over the implementation of the Jal Jeevan Mission (JJM)** in Jammu & Kashmir like;
  - Use of substandard materials
  - Incomplete and abandoned water supply schemes
  - Corruption and misuse of public funds
  - Failure in providing tap connections despite funds being released
- As a result, a **House Committee was established,** and it issued a public notice inviting citizens and stakeholders to report malpractices.

Jal Jeevan Mission

- It was launched by the Prime Minister in **2019**.
- **Concerned Ministry:** It comes under the Ministry of Jal Shakti.
- **Aim:** To provide tap connections to about **16 crore rural households** to achieve **saturation coverage by 2028 (earlier 2024).**
- **Mandatory components include:** Source sustainability, Greywater management, Water conservation and Rainwater harvesting.

- Retrofitting of ongoing and completed schemes to **provide FHTCs** at a minimum service level of **55 liters per capita per day (lpcd).**
- **Mission Objectives:**
  - **Empowering Women:** Reduces the burden on women of fetching water. Improves health, education, and socio-economic status of women.
  - **Ease of Living:** Enhances the dignity and quality of life of rural families.
- **Community Approach:**
  - Focus on Information, Education, and Communication (IEC).
  - Aims to create a janandolan (people's movement) for water.

What are the Governance Challenges?

- **Lack of Transparency and Accountability:**
  - Absence of robust audit mechanisms.
  - Weak convergence between local panchayats and implementing agencies.
- **Administrative Capacity Gaps:**
  - Shortage of trained manpower in remote blocks.
  - Poor maintenance of assets post-implementation.
- **Political Interference:**
  - Contractors with political links allegedly bypass due process.
  - Quality control is often ignored in favour of cost-cutting.

Way Forward

- **Independent Social Audits:** Engage NGOs, civil society, and citizen groups for real-time audits and grievance redress.
- **Real-time Monitoring Dashboards:** Enhance public access to performance data at the panchayat and block level.
- **Strengthening Gram Panchayats:** Provide technical and financial training to local bodies to manage and maintain infrastructure.
- **Expand low-cost water testing facilities** to detect contamination early.

Source: IE

DELHI'S FUEL BAN FOR OLD VEHICLES

Context

- Citing **"technological" and "cross-border fuelling" concerns**, the **Commission for Air Quality Management (CAQM)** deferred the ban on fuel to end-of-life vehicles in Delhi to November 1.

About

- **In 2015, the National Green Tribunal (NGT)** directed that All diesel vehicles (heavy or light) which are **more than 10 years old** will not be **permitted on the roads of Delhi NCR.**
  - Also, Petrol vehicles which are **more than 15 years old** and diesel vehicles that are **more than 10 years old** shall not be registered in the NCR, Delhi.
- The NGT's directive was **upheld and reinforced** by the **Supreme Court in 2018**. It said that vehicles violating the order should be **impounded**.
- Most recently, the **Environment Protection (End-of-Life Vehicles) Rules, 2025,** effective April 1, made **scrapping mandatory within 180 days of the expiry of the vehicle's registration.**
- The enforcement relies on **Automatic Number Plate Recognition (ANPR) systems** installed at fuel stations. These cameras scan number plates and cross-check with the **VAHAN database to identify ELVs**. If detected, fuel will be denied, and vehicles may be subject to impoundment or scrapping unless exempted.

Issue with Older Vehicles

- **Pre-BS-VI (Bharat Stage VI) vehicles** are disproportionately responsible for vehicular emissions.
  - BS-IV vehicles, for instance, emit 4.5 to 5.5 times more particulate matter than BS-VI vehicles.
- **Transport emissions** account for 28% of PM2.5, 41% of sulphur dioxide (SO2), and 78% of nitrogen oxide (NOx) emissions in the NCR.
- Although legal mandates have existed since 2015, official enforcement was delayed due to the **absence of necessary technological infrastructure.**

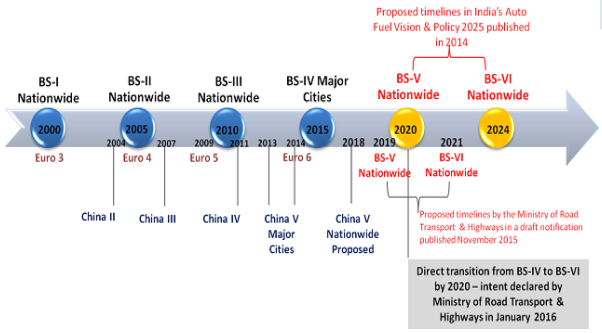
Commission for Air Quality Management (CAQM)

- Formalized through the Commission for **Air Quality Management in National Capital Region and Adjoining Areas Act, 2021.**
- **Jurisdiction:** Covers Delhi, Punjab, Haryana, Rajasthan, and Uttar Pradesh — especially areas contributing to air pollution in the NCR.
- **CAQM is meant to provide an integrated and permanent mechanism for:**
  - Coordinated response to air pollution.
  - Ensuring synergy across different ministries and states.
  - Replacing the fragmented approach that involved multiple agencies with overlapping responsibilities.

Bharat Stage Norms

- Bharat Stage Norms (BS Norms) are **emission standards instituted by the Government** to **regulate the output of air pollutants** from internal combustion engines and spark-ignition engines, including motor vehicles.
- These are **European emission standards (Euro norms).**
- **They apply to all vehicles:** 2-wheelers, 3-wheelers, cars, trucks, buses, etc.

Implementation of Emission Standards in India, Europe, and China



Challenges in the Implementation of Bharat Stage Norms in India

- **Automobile Industry Readiness:** Sudden transitions, like from BS-IV to BS-VI (skipping BS-V), forced automobile manufacturers to overhaul engines and emission systems in a short time.
- **Fuel Availability:** Refineries had to upgrade to produce cleaner fuels (e.g., BS-VI compliant fuel), which required huge investments and coordination across the country.
- **Testing Facilities:** Lack of adequate testing and certification infrastructure for emission standards compliance, especially for real driving emission (RDE) tests.
- **For Consumers:** BS-VI vehicles are more expensive, discouraging buyers from adopting newer models.
- **Weak Enforcement:** Limited enforcement capacity to check on-road compliance, especially in smaller towns and rural areas.
- **Large Number of Older Vehicles:** Older BS-II or BS-III vehicles still ply on roads, emitting significantly more pollutants.
- **Resistance to Scrappage:** Vehicle owners are reluctant to scrap old vehicles due to sentimental value, poor enforcement of scrappage policy, and lack of economic incentives.
- **Low Awareness:** Many consumers are unaware of BS norms and their environmental benefits.

Way Ahead

- The CAQM's directive is a bold enforcement step aiming to remove highly polluting vehicles from roads in a phased manner.
- While legally backed and environmentally justified, its success hinges on technological robustness, cross-state cooperation and public support.
- The solution lies in coordinated planning and action on multiple fronts, involving a wide range of stakeholders.

Source: IE

REFORMING THE UNFCCC PROCESS

Context

- As the world grapples with intensifying climate crises, the credibility and effectiveness of the **United Nations Framework Convention on Climate Change (UNFCCC)** process have come under scrutiny.

About the UNFCCC

Foundational Years for UNFCCC

1988	Intergovernmental Panel on Climate Change (IPCC) established
1990	IPCC's First Assessment Report calls for a global treaty
1992	UNFCCC adopted at the Rio Earth Summit
1994	UNFCCC enters into force

- It is the foundational international treaty that guides global efforts to combat climate change.
- It was adopted in **1992 at the Earth Summit in Rio de Janeiro**, it has since become the bedrock of climate diplomacy, shaping agreements like the **Kyoto Protocol and the Paris Agreement**.

Institutional Framework

- **Conference of the Parties (COP):** The supreme decision-making body that meets annually to assess progress and negotiate new commitments.

Core Objectives of UNFCCC

- Stabilize Greenhouse Gas Concentrations
- Promote Sustainable Development

Guiding Principles

- Common but Differentiated Responsibilities (CBDR)
- Precautionary & Proactive Approach
- Equity and Sovereignty

- **Subsidiary Bodies:**
  - **Subsidiary Body for Scientific and Technological Advice (SBSTA):** Provides scientific and technological advice
  - **Subsidiary Body for Implementation (SBI):** Supports implementation and reviews national reports
- **Secretariat:** Facilitates negotiations, supports implementation, and maintains transparency through data and reporting systems.

Major Milestones of the UNFCCC Process

- **Protocol and Implementation:**
  - **1997:** Kyoto Protocol adopted — first legally binding emission reduction targets
  - **2005:** Kyoto Protocol enters into force
  - **2012:** Doha Amendment adopted, extending Kyoto commitments
- **Paris Agreement Era:**
  - **2015:** Paris Agreement adopted at COP21 — aims to limit global warming to well below 2°C
  - **2023: First Global Stocktake** – First comprehensive review of climate progress

India & the UNFCCC: Key Contributions & Commitments

- **Nationally Determined Contributions (NDCs):** Updated in 2022 to reflect the **Panchamrit goals** announced at COP26.
  - **Targets include** reducing emissions intensity of GDP by 45% by 2030 (from 2005 levels); achieving 50% cumulative electric power capacity from non-fossil sources by 2030; and net-zero emissions goal by 2070.
- **Mission LiFE (Lifestyle for Environment):** A citizen-centric initiative promoting sustainable living.
- **Long-Term Low-Carbon Development Strategy (LT-LEDS):** It was submitted to UNFCCC in 2022. It focuses on:
  - Clean energy transitions;
  - Low-carbon transport and urban design;
  - CO removal technologies;
  - Forest enhancement and climate resilience

India at COP Summits

- **COP26 (Glasgow):** India presented its Panchamrit climate action framework;
  - Advocated for climate justice and equitable access to the global carbon budget;
- **COP28 (Dubai):**
  - 33% reduction in emissions intensity (2005–2019);
  - 40% installed capacity from non-fossil fuels achieved 9 years ahead of target.
- India launched initiatives like:
  - Green Credit Programme;
  - LeadIT 2.0 (with Sweden);
  - Global Biofuel Alliance
- **Progress & Reporting:**
  - **Biennial Update Reports (BURs):** India submitted its 4th BUR in December 2024. It highlights:
    - 7.93% drop in GHG emissions in 2020 vs. 2019;
    - Forest and tree cover offset 22% of CO emissions;
    - 36% reduction in emission intensity since 2005

Why Is UNFCCC Reform Urgent?

- **Stalled Progress:** Despite decades of negotiations, global emissions continue to rise, and climate finance commitments remain unmet.
- **Consensus Paralysis:** The UNFCCC's consensus-based decision-making gives every country veto power, often diluting outcomes and delaying action.
- **Withdrawal of Key Players:** The recent exit of the United States under President Trump has further eroded trust in the process.
- **Climate Finance Bottleneck:**
  - **Current Target:** $100 billion annually—far below the estimated $1.3 trillion needed.
  - **New Pledge:** Developed countries offered $300 billion per year starting 2035, which many see as insufficient.

Proposed Reforms To UNFCCC

- **At Bonn Climate Meeting (June 2025):**
  - **Agenda Simplification:** Eliminate overlapping or redundant items to focus on core issues.
  - **Team Size Limits:** Reduce delegation sizes to improve efficiency.
  - **Time Management:** Restrict statement lengths to allow more time for negotiations.
- **By Civil Society Groups:**
  - **Majority-Based Decisions:** Replace consensus with majority voting when agreement is elusive.
  - **COP Host Criteria:** Bar countries with poor climate records from hosting COP summits.
  - **Fossil Fuel Influence:** Limit participation of polluting industries in negotiations.
  - **Increased Transparency**: Ensuring that climate decisions are made in public and are subject to independent review.
  - **Stronger Accountability Mechanisms**: Holding countries accountable for unmet commitments.
- **Brazil's Leadership at COP30:**
  - **Trust Building:** Issued a letter urging parties to reflect on the future of the UNFCCC process.
  - **Multilateral Synergy:** Proposed integrating climate action across UN agencies and financial institutions.
  - **30-Point Agenda:** Outlined key areas for accelerating climate action.
- **BRICS' Call for Climate Justice:** At a recent BRICS summit in Brazil, it released a joint declaration on climate finance. The statement reiterated the demand for:
  - Full delivery of existing climate finance commitments by developed nations.
  - A substantial increase in **adaptation finance**, which remains significantly underfunded compared to mitigation efforts.

Source: IE

NEWS IN SHORT

DHAMMACAKKAPPAVATTANA DIVAS

Context

- **The International Buddhist Confederation (IBC),** under the aegis of the **Ministry of Culture**, in collaboration with the Mahabodhi Society of India, will commemorate sh**ḍha Pūrṇimā—Dhammacakkappavattana Divas.**

About

- sh**ḍha Pūrṇimā** marks the **First Turning of the Wheel of Dhamma**, the day when **Lord Buddha delivered his first sermon** to the **pañcavargiya** (five ascetic companions) at Sarnath.
- This sacred occasion also heralds the beginning of **Varsha Vassa** (Rainy Season Retreat), observed **by monks and nuns across the Buddhist world.**

About the International Buddhist Confederation (IBC)

- It was founded in **2012** following the **Global Buddhist Congregation in New Delhi.**
- The IBC is the **world's first organization** that brings together Buddhist organizations, monastic orders, and lay institutions across 39 countries and over 320 member bodies.
- **Mission:** Embed Buddhist values into global conversations and foster harmony, the IBC upholds a vision of unity, compassion, and spiritual dialogue.
- **Headquarters:** New Delhi.
- **Governing Structure:** Includes both monastic and lay participation, truly reflecting the principle of collective responsibility in preserving and propagating the Buddha Dhamma.

Source: PIB

MELTING GLACIERS CAN LEAD TO MORE VOLCANIC ERUPTIONS

Context

- A new study presented at the 2025 Goldschmidt Conference in Prague has warned of a potentially dangerous feedback loop between climate change and increased volcanic activity.

How Melting Glaciers Can Trigger Volcanic Eruptions?

- **Pressure Release on Magma Chambers:** Glaciers and ice caps exert immense pressure on Earth's crust. This pressure suppresses the movement of magma and gases within underground chambers.
  - When glaciers melt, this pressure is lifted, a process known as **glacial isostatic adjustment.** The sudden release allows gases to expand and magma to rise more easily, increasing the likelihood of eruptions.
  - **Historical Precedent:** During Iceland's last deglaciation phase (15,000–10,000 years ago), volcanic activity surged to rates 30–50 times higher than present levels.
- **Increased Groundwater Infiltration:** Climate change also affects precipitation patterns. Greater rainfall or snowmelt can seep underground and interact with hot magma systems. Hydrothermal interactions can trigger eruptions, especially in already destabilized systems.

Dual Impacts of Increased Volcanism

- **Cooling Effect:** Volcanic eruptions release **sulfur dioxide (SO_2)** into the atmosphere. **SO_2 converts** to sulfuric acid aerosols in the stratosphere, which reflect sunlight and lead to short-term global cooling.
  - These aerosols can remain aloft for up to three years, creating temporary drops in temperature.
- **Warming Effect:** However, prolonged or frequent eruptions release significant amounts of greenhouse gases like **CO_2 and methane**, which contribute to **long-term global warming.**

Source: IE

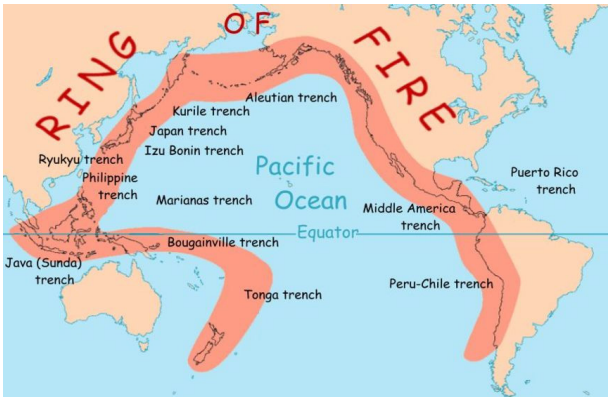
TOKARA ISLANDS

Context

- More than 1,000 earthquakes have rattled the **Tokara Islands in southern Japan** over the past two weeks.

About

- The **Tokara Islands** are an archipelago consisting of **seven inhabited islands** and **five uninhabited islands**.
- The chain stretches about **150 km (93 miles)** and lies between **Yakushima** and **Amami-Oshima**.
- Japan is among the most seismically active nations on Earth, located at the intersection of **four major tectonic plates** along the western edge of the **Pacific "Ring of Fire".**



Source: IE

BATTERY PASSPORT

Context

- India will soon have its own **"Battery Passport" regime.**

About

- Under the system, the **specifications of every battery**, including its origin, performance, composition, end of life and the entire supply cycle will be captured digitally and embedded in a **QR code.**
- NITI Ayog has started deliberations with ministries and government departments on the proposed framework.
- Battery passport serves as an **Aadhaar identity of sorts,** with every battery having a unique ID that provides all information on the product.
- The initiative will not only improve safety and quality standards but also accelerate export of EVs from India.

Source: TOI

FACEAUTH

Context

- **Himachal Pradesh** became the **first state in the country** to introduce **Aadhaar-based face authentication (FaceAuth).**

About

- **FaceAuth** is introduced for the **distribution of ration** to **eligible beneficiaries under the Public Distribution System (PDS).**
- Until now, **authentication** was carried out using either **OTP-based or biometric methods.**
  - However, **frequent challenges** such as SMS delivery failures and biometric mismatches at the UIDAI end were causing inconvenience to the beneficiaries.
- This new facility uses a **mobile camera via an app** installed on the fair price shop (FPS) owner's smartphone**, enabling direct facial authentication of beneficiaries.**
- **Significance:** The new system is expected to improve the authentication success rate and reduce verification time, ensuring a faster and more efficient ration distribution process.

Source: BS

BIND SCHEME

In News

- Centre to establish Akashvani kendra in Ujjain Under **Broadcasting Infrastructure and Network Development (BIND) scheme.**

About BIND Scheme

- It is a **Central Sector Scheme** launched by the Ministry of Information & Broadcasting.
- Its primary objective is to provide financial support for the expansion and modernization of Prasar Bharati's infrastructure, which includes both **Doordarshan (DD) and All India Radio (AIR).**
- It focuses on producing high-quality, diverse content for both domestic and international audiences, including upgradation of DTH platforms to accommodate more channels.

Source: PIB

VERA C. RUBIN OBSERVATORY

Context

- The Vera C. Rubin Observatory (VRO) in Chile released its first images, revealing a detailed view of 10 million galaxies, over 2,000 new asteroids, and stars with varying brightness.

About Vera C. Rubin Observatory

- **Location:** Cerro Pachón Mountain, Northern Chile (Altitude: 8,684 feet)
- **Naming:** Formerly it was known as Large Synoptic Survey Telescope (LSST) and **renamed in 2019** in honour of astronomer **Vera C. Rubin, who first discovered evidence for dark matter in galaxies.**
- **Funded by:** U.S. National Science Foundation and Department of Energy
- **Core Instrument:** Simonyi Survey Telescope

Significance of the Observatory

- VRO will scan the **entire southern sky every three nights for 10 years**, creating the **most detailed astronomical** time-lapse ever.
- Its system can compare images in **60 seconds** and generate up to **10 million** alerts per night on transient phenomena like: Supernovae, Moving objects (asteroids/comets),Dimming events (caused by planets or stars blocking light).

Source: IE

KHARAI CAMELS

In News

- The rare Kharai camels caught in sea tide rescued off Gujarat coast.

About Kharai camels

- Kharai Camels are a rare and unique breed of camel indigenous to the coastal regions of Kutch, Gujarat, India.
- They are often called the **"swimming camel"** due to their remarkable ability to swim long distances—up to 3 kilometers—in seawater to reach mangrove islands for grazing.
- The name **"Kharai" comes from the Gujarati word "Khara,"** meaning saline, reflecting their adaptation to both saline desert and coastal ecosystems.
- The breed has been maintained for over 400 years by **Rabari and Fakirani Jat tribes.**

Source: TOI

GREAT HORNBILL

Context

- In a rare and remarkable sighting, the **Malamuzhakki Vezhambal (Great Hornbill)**, Kerala's State bird, was spotted in the coastal belt of Kakkampara.

About the Great Hornbill

- Also known as the **concave-casqued hornbill**, great Indian hornbill, or great pied hornbill, it is one of the largest members of the hornbill family, found across the **Indian subcontinent and Southeast Asia**.
- Its impressive size and striking colours make it significant in many tribal cultures and rituals.
- The Great Hornbill can live up to 50 years in captivity. It is mainly frugivorous but can also prey on small mammals, reptiles, and birds when food is scarce.
- It is listed as **Vulnerable** by the IUCN and is protected under **Schedule I** of the Indian Wildlife (Protection) Act.

Do you know?

- Apart from Kerala, the Great Hornbill is also the State bird of Arunachal Pradesh.

Source: TH

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