



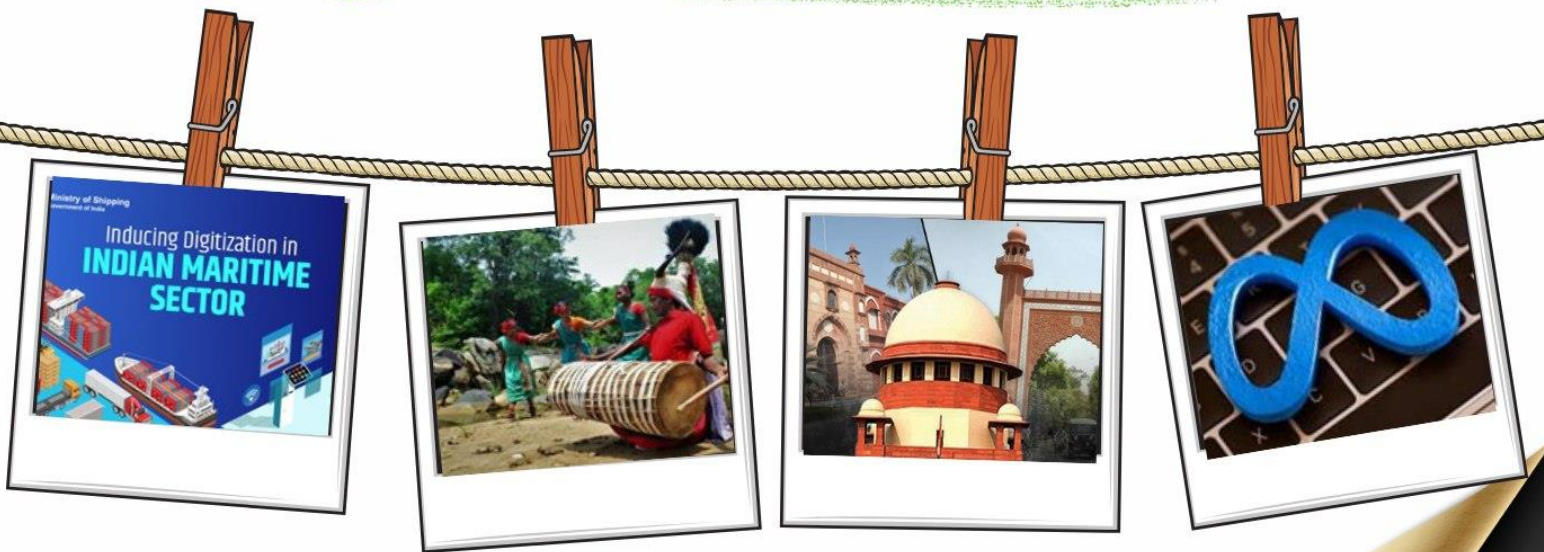
Weekly Current Affairs



To The Point

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Power Transaction From Nepal to Bangladesh Through Indian Grid

Context: India, Nepal, and Bangladesh achieved a historic milestone by inaugurating the **first trilateral power transaction** through the Indian grid. This marks a significant step toward establishing an integrated South Asian power market.

Key Highlights:1. **Agreement Details:**

- A **power sales agreement** was signed in **October 2024** among:
 - **NPC Vidyut Vyapar Nigam (NVTN)** – India.
 - **Nepal Electricity Authority** – Nepal.
 - **Bangladesh Power Development Board** – Bangladesh.

2. **Power Export:**

- Nepal will export **up to 40 MW** of power to Bangladesh using India's power grid.
- This is the **first trilateral power transaction** facilitated through India's grid.

3. **Expected Impact:**

- Enhances **sub-regional connectivity** in the energy sector.
- Strengthens cooperation and mutual benefits among the three nations.
- Promotes **energy security** and economic integration in South Asia.

India's Role in Regional Energy Trade:1. **Ambitions:**

- India aims to be a **regional energy hub**, trading electricity and refined petroleum products across South Asia.
- Plans to supply **LNG to Sri Lanka** and work on an undersea electricity transmission line.

2. **Current Power Trading:**

- Conducted through **bilateral agreements** under the **2014 SAARC Framework Agreement for Energy Cooperation**.
- Since 2021, the **Indian Energy Exchange (IEX)** has facilitated power trading with Nepal.

3. **Policy Enhancements:**

- **2023 Guidelines** for electricity import/export ensure grid reliability and promote regional energy cooperation.
- **Market coupling** introduced for spot power trading to enhance efficiency.

4. **Key Agencies:** NTPC Vidyut Vyapar Nigam (NVTN) and PTC India are the nodal agencies for cross-border power trading.**Global Energy Integration Initiatives:**1. **OSOWOG Initiative** (One Sun, One World, One Grid):

- Aims to create a **transnational mega grid** to facilitate renewable energy trade from Southeast Asia to Europe via the Middle East.
- Enhances access to low-cost renewable energy for participating nations.

2. **Collaborations:** India is working with **Saudi Arabia, UAE, and Singapore** to develop OSOWOG infrastructure.**Significance of the Trilateral Power Transaction:**

1. **Strengthens Regional Integration:** Fosters cooperation among India, Nepal, and Bangladesh in achieving sustainable energy goals.



2. **Enhances Energy Security:** Reduces dependency on non-renewable energy sources and builds resilience.
3. **Promotes Economic Growth:** Facilitates efficient energy sharing, reducing costs and enhancing regional development.
4. **Advances Sustainable Development:** Contributes to renewable energy adoption and reduces carbon footprints in the region.

This initiative underscores India's growing leadership in advancing regional energy cooperation and sustainable development in South Asia



'PPP plus PPP' Model for Diabetes Management

Context: India faces a severe diabetes crisis, with **over 212 million individuals** affected, representing a substantial share of the global burden. To address this public health challenge, the **"PPP plus PPP" model** was introduced on **World Diabetes Day (14th November)** as a collaborative framework integrating domestic and international partnerships.

What is the 'PPP plus PPP' Model?

The model is designed to address diabetes holistically by combining:

**1. Domestic Public-Private Partnerships (PPPs):**

- **Affordable Insulin Production:** Collaborations with pharmaceutical companies to manufacture low-cost recombinant insulin.
- **Awareness Campaigns:** Engaging private hospitals and NGOs for large-scale awareness drives and diabetes screenings.
- **Healthcare Infrastructure:** Setting up diabetes clinics in rural and semi-urban areas to improve access to care.

2. International Collaborations (PPP):

- **Partnerships with Global Organizations:** Working with entities like the **WHO** and **International Diabetes Federation** to improve care protocols.
- **Advanced Technologies:** Utilizing **AI and machine learning** for predictive analytics and personalized treatments.
- **Investment in Research:** Attracting international funding for research and large-scale diabetes interventions.

Understanding Diabetes Mellitus (DM):

- 1. What is Diabetes:** A chronic metabolic disorder where the body has elevated blood glucose levels due to insufficient insulin production or resistance to insulin.
- 2. Types of Diabetes:**
 - **Type 1 Diabetes:** Autoimmune destruction of insulin-producing cells in the pancreas.
 - **Type 2 Diabetes:** Commonly linked to obesity and inactivity; the body is insulin-resistant or insufficient in insulin production.
 - **Gestational Diabetes:** Occurs during pregnancy and usually resolves post-childbirth.
- 3. Symptoms:**
 - Frequent urination
 - Increased thirst
 - Excessive hunger
 - Blurred vision
 - Fatigue
- 4. Complications:**
 - Heart disease
 - Stroke
 - Kidney disease



- Nerve damage, Retinopathy (eye damage)

Global and Indian Context:

- **Global Prevalence:** 830 million people worldwide are affected, with a significant portion in low- and middle-income countries.
- **India's Burden:** 212 million people in India live with diabetes, highlighting the urgent need for action.
- **WHO Target:** Halt the rise of diabetes and obesity by **2025**.

Insulin's Role in Diabetes Management:

- **Function:** Insulin regulates blood sugar by enabling glucose from the bloodstream to enter cells for energy.
- **In Diabetes:**
 - Type 1: Insufficient insulin production.
 - Type 2: Ineffective response to insulin by the body's cells.
- **Result:** High blood sugar levels lead to complications without proper management.

Government Initiatives to Combat Diabetes in India:

1. **National Program for Prevention and Control of Cancer, Diabetes, Cardiovascular Diseases, and Stroke (NPCDCS):** Focus on prevention, early detection, and management of diabetes and other non-communicable diseases.
2. **National Health Mission (NHM):** Includes screening, diagnosis, treatment, and lifestyle promotion to prevent diabetes.
3. **Ayushman Bharat – Pradhan Mantri Jan Arogya Yojana (PMJAY):** Financial coverage for diabetes-related treatments.
4. **Pradhan Mantri Bhartiya Janaushadhi Pariyojana (PMBJP):** Provides affordable generic medicines, including insulin.
5. **National Diabetes Control Program:** Early detection, treatment, and prevention of diabetes.

Significance of the 'PPP plus PPP' Model:

- **Enhanced Affordability:** Low-cost insulin and treatments for widespread accessibility.
- **Improved Access:** Rural and semi-urban clinics bridge healthcare gaps.
- **Global Expertise:** Advanced analytics and investments bolster research and intervention strategies.
- **Integrated Approach:** Combines domestic efforts and international resources to combat diabetes effectively.

This innovative framework reflects India's commitment to addressing its diabetes epidemic with a collaborative and comprehensive approach.

'Raising Ambition and Accelerating Delivery of Climate Finance' Report

Context: The report was unveiled at the **29th Conference of the Parties (CoP)** to the **United Nations Framework Convention on Climate Change (UNFCCC)**. It outlines investment needs and strategies for addressing climate challenges under the **Paris Agreement**.

Key Findings of the Report:**Global Investment Needs:**

- **\$6.3–6.7 trillion annually** is needed globally by **2030** to address climate challenges.
- **Emerging markets and developing countries (EMDCs)** (excluding China) require **\$2.3–2.5 trillion annually**.

Current Investment Trends:

- Climate finance is primarily concentrated in economies like **India** and **Brazil**.
- **Non-traditional sources** such as the **voluntary carbon market**, **South-South Cooperation**, and **Special Drawing Rights (SDRs)** play an increasingly important role in closing the financing gap.

Opportunities for Developing Nations:

- **Declining costs of solar technology** provide a unique advantage.
- **China's vast supply chains** enhance access to clean energy infrastructure globally.

Recommendations for Climate Finance:**1. Integrated Approach**

- Foster **collaboration** across public, private, and multilateral sectors.
- Develop **sector-specific investment plans** and co-create **project pipelines** for effective implementation.

2. Public Funding

- Address debt and fiscal constraints to improve funding availability.
- Enhance **domestic resource mobilization** using tools like **carbon pricing**.

3. Private Sector Participation

- Reduce the cost of capital to attract private investments.
- Expand access to **concessional financing** and leverage the **carbon market**.

4. Multilateral Development Banks (MDBs)

- MDBs should **triple their lending capacity** by **2030** to support the new **Collective Quantified Goal on Climate Finance (NCQG)**.

Mechanisms to Facilitate Climate Finance:

1. Global Environment Facility (GEF): Established in 1991, GEF addresses global environmental issues, including climate change.

2. Green Climate Fund (GCF): Set up at COP 16 (Cancún Conference) in 2010, it supports mitigation and adaptation efforts in developing countries.

3. New Collective Quantified Goal (NCQG): Under negotiation, NCQG aims to set post-2025 financial targets for supporting developing nations' climate actions.

Conclusion:

The report underscores the **urgency of scaling up climate finance** to achieve the goals of the **Paris Agreement**. With declining technology costs and emerging innovative financial mechanisms, developing nations have a significant opportunity to lead the global climate transition.

Collaboration among governments, private investors, and international organizations is critical to mobilizing resources, enhancing resilience, and achieving sustainable climate action.



**BSNL Launches India's First Direct-to-Device (D2D) Satellite Connectivity**

Context: Bharat Sanchar Nigam Limited (BSNL) has launched **India's first Direct-to-Device (D2D) satellite connectivity**, a landmark in making satellite communications available to everyday consumers. Previously, such technology was primarily used for **military** and **emergency purposes**.

What is Direct-to-Device Satellite Technology?

- **Satellites as Space Cell Towers:** Unlike traditional mobile connectivity that relies on ground-based towers, D2D technology uses **satellites in orbit** to transmit signals directly to devices on Earth.
- **Non-Terrestrial Network (NTN):** This system enables seamless two-way communication between devices and satellites.
- **BSNL Technology:**
 - Utilizes **Viasat's Geostationary L-band satellites**, located **36,000 km** above the Earth.
 - Eliminates reliance on terrestrial cell towers, making it ideal for **remote coverage**.

Global Counterparts:

Other initiatives using D2D technology include **AST SpaceMobile**, **Lynk Global**, **Constellation Global**, and **SpaceX-Starlink**.

Significance of D2D Satellite Connectivity:

1. **Reliable Connectivity:** Offers uninterrupted **internet access** regardless of weather conditions.
2. **High-Speed Internet in Remote Areas:** Ensures **wider coverage**, even in areas where cellular or Wi-Fi networks are unavailable.
3. **Supporting UPI Payments:** Enables digital transactions in **rural and underserved regions**, bridging the digital divide.
4. **Emergency Services:** Provides essential communication for **SOS messaging** and emergency calls, crucial for **adventurers, travelers**, and during disasters.

Challenges in Implementation:

1. **Latency:** Reducing delays for real-time applications like **voice calls** and **video streaming** is a key challenge.
2. **Regulatory Hurdles:** Cross-border communications may encounter **regulatory issues** in multiple jurisdictions.
3. **Spectrum Allocation:** Ensuring sufficient bandwidth for smooth satellite-to-ground communication.
4. **Device Compatibility:** Adapting technology for **diverse smartphones** and operating systems.
5. **Propagation Challenges:** Overcoming **signal loss** and **interference** in varied environmental conditions.

Conclusion:

BSNL's D2D satellite connectivity initiative is a transformative step toward **digital inclusivity** in India. By extending high-speed internet and reliable connectivity to **remote and underserved areas**, it supports critical functions like **digital payments**, **emergency communication**, and **economic development**. However, addressing technological and regulatory challenges is crucial for its widespread adoption and success.

Exercise Poorvi Prahar: Enhancing India's Military Preparedness

Context: The Indian Army, in collaboration with the Navy and Air Force, is conducting Exercise Poorvi Prahar, a high-intensity tri-service military drill in the forward areas of Arunachal Pradesh. This exercise underscores India's focus on strengthening inter-service coordination and improving operational readiness in strategically significant regions.

Key Highlights of Exercise Poorvi Prahar:**1. Objective and Scope**

- Designed to sharpen the **combat effectiveness** of the Armed Forces in conducting **Integrated Joint Operations**.
- Aims to tackle the challenges posed by **mountainous terrains** and ensure seamless inter-service coordination across all domains.

2. Cutting-Edge Technology Integration

- Showcasing Technological Prowess:** Features advanced **military platforms and systems**, reflecting India's progress in **modern warfare technology**.
- State-of-the-Art Systems Deployed:**
 - Swarm Drones:** Enable coordinated operations.
 - First Person View (FPV) Drones:** Enhance reconnaissance and tactical planning.
 - Loitering Munitions:** Ensure precision strikes, boosting operational flexibility.
- Artificial Intelligence and Satellite Connectivity:**
 - Systems powered by **AI-driven analytics** ensure real-time information sharing and faster decision-making.

3. Emphasis on Inter-Service Collaboration

- Development of a Common Operating Picture (COP):**
 - A joint control structure optimizes coordination among the **Army, Navy, and Air Force**.
 - Provides **real-time situational awareness**, enabling **faster response times** during operations.
- Integration Across Domains:**
 - Ensures smooth **multi-domain operations**, reinforcing India's strategic capabilities in land, air, and sea warfare.

Significance of Exercise Poorvi Prahar:**1. Bolstering National Security**

- Enhances India's ability to **deter threats** in the **North-East region** through **advanced operational preparedness**.

2. Preparing for Future Warfare

- Emphasizes the absorption of **next-generation technologies**, ensuring readiness for **evolving military challenges**.

3. Strengthening Joint Operations

- Promotes **inter-service coordination**, ensuring effective collaboration in **high-stakes combat scenarios**.

Conclusion:

Exercise Poorvi Prahar is a testament to India's commitment to **modernizing its defence forces** and enhancing **strategic deterrence capabilities**. By leveraging cutting-edge technology and fostering seamless inter-service collaboration, the Indian Armed Forces are well-prepared to address emerging challenges and secure the nation's strategic interests.



Punjab and Haryana Dispute Over New Assembly Building in Chandigarh

Context: The long-standing conflict between Punjab and Haryana over the shared capital, Chandigarh, has reignited due to Haryana's proposal to build a **new Assembly building** in the Union Territory.

Background of the Dispute:

1. **Chandigarh as Shared Capital:**

- Since the **1966 bifurcation of Punjab** under the **Punjab Reorganization Act**, Chandigarh has served as the **shared capital** of Punjab and Haryana.
- It is directly administered by the **Central Government** as a **Union Territory**.

2. **Recent Development:**

- The **Central Government** reportedly allocated **10 acres** in Chandigarh for Haryana's Assembly building.
- Punjab has strongly opposed this decision, asserting its constitutional and historical rights over Chandigarh.

3. **Haryana's Stand:** Haryana asserts its legal right to Chandigarh as part of the 1966 bifurcation agreement and has urged Punjab to avoid politicizing the issue.

Chandigarh: A Union Territory with Dual Role

1. **Union Territory Governance:**

- Chandigarh is governed under **Article 239** of the Indian Constitution, placing it under **Central administration**.
- The **Governor of Punjab** also serves as the **Administrator of Chandigarh**, linking it administratively to Punjab.

2. **Punjab's Claim:**

- Chandigarh was originally developed as Punjab's capital after Partition in **1947**.
- Punjab argues its exclusive claim, citing constitutional and historical precedents.

3. **Haryana's Claim:**

- Haryana retains its right to share Chandigarh as per the 1966 agreement.
- It also operates its legislative and administrative functions from the city.

Associated Issue: Sutlej-Yamuna Link (SYL) Canal Controversy:

1. **SYL Canal Overview:**

- The **214-km-long canal** is meant to share **Ravi and Beas river waters** between Punjab and Haryana.
- Haryana has completed its portion, but Punjab has stalled construction for over three decades.

2. **Water Sharing Dispute:**

- Punjab opposes diverting water to Haryana, citing ecological concerns and water scarcity.
- Haryana seeks its rightful share as agreed during the bifurcation.

3. **Legal Framework:**

- While **water resources** fall under the **State List**, the Parliament has authority over **inter-state rivers** under the **Union List**.

Rivers Involved:

1. **Sutlej River:**

- Origin: **Lake La'nga**, Tibet.
- Flows through Himachal Pradesh, Punjab, and forms part of the **India-Pakistan border**.
- Tributaries: **Beas, Ravi, Chenab, Jhelum**.

2. **Yamuna River:**

- Origin: **Yamunotri Glacier**, Uttarakhand.
- Confluence with Ganges at **Sangam** in Prayagraj, Uttar Pradesh.
- Major Tributaries: **Chambal, Sindh, Betwa, Ken**.

Conclusion:

The dual disputes over Chandigarh's administrative control and the SYL canal underscore the **complexity of inter-state issues** post-bifurcation. Resolution requires:

- **Collaborative dialogue** between Punjab, Haryana, and the Central Government.
- A **balanced approach** to address resource sharing, constitutional rights, and administrative needs.

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GRAP-4 Restrictions in Delhi: What's Open, What's Shut?

Context: With Delhi-NCR engulfed in toxic air pollution, the Commission for Air Quality Management (CAQM) has implemented Stage-IV (Severe+) measures under the Graded Response Action Plan (GRAP).

Why the Need for GRAP-4?

Delhi's Air Quality Index (AQI) has hit a staggering 500, placing it in the Severe+ category. GRAP, created by the Ministry of Environment, Forests & Climate Change (MoEF&CC) in 2017, serves as a tiered action plan to counter air pollution. Stage-IV guidelines aim to limit pollution levels and protect public health.

The 4 Stages of GRAP:

GRAP defines actions based on the severity of air pollution:

Stage	AQI Range	Key Measures
Stage I	201-300	Public advisories, dust control, no open burning.
Stage II	301-400	Diesel generator restrictions, road cleaning, sprinkling water.
Stage III	401-450	Ban on non-essential construction, limits on heavy vehicle entry.
Stage IV	Above 450	Complete ban on construction, school closures, vehicle restrictions.



GRAP-4 Measures: What's Allowed & What's Banned?

1. Truck Entry Restrictions:

- **Allowed:**
 - Trucks carrying **essential goods**.
 - Vehicles powered by CNG, LNG, electric energy, or those meeting BS-VI standards.
- **Banned:**
 - Trucks carrying **non-essential goods**.
 - **Non-Delhi registered Light Commercial Vehicles (LCVs)** unless eco-friendly or carrying essential items.

2. Ban on Construction & Demolition (C&D) Activities

- **Allowed:**
 - **Small-scale personal construction projects**.
- **Banned:**
 - All large construction and demolition projects, including **highways, flyovers, pipelines, and telecom infrastructure**.

3. Shift to Online Education

- **Schools:**
 - Most schools have switched to **online classes**.
 - **Class 10 and 12** students preparing for board exams are exempted.
- **Workplaces:**
 - **50% work-from-home** policy advised for private and public sector offices.
 - Central government offices may also adopt these measures.

4. Potential Emergency Actions

Authorities may introduce further steps, such as:

- Suspending **non-essential commercial activities**.
- Shutting down colleges and universities.
- Implementing **odd-even vehicle schemes** to curb traffic emissions.

Health Guidelines for Residents:

To minimize health risks, citizens, especially **children, the elderly, and individuals with respiratory or heart issues**, should:

Download Our Application ----- Avoid outdoor activities during peak pollution hours. -----



- Stay indoors whenever possible.

Citizen Involvement is Key:

The success of GRAP-4 relies on **public cooperation:**

- Reduce non-essential outdoor activities.
- Support initiatives aimed at reducing pollution levels.

By adhering to these guidelines, we can collectively combat **Delhi's air pollution crisis** and safeguard public health. Let's breathe responsibly.



India's First Hypersonic Missile Test: A Game-Changing Defence Milestone

Context: India has achieved a historic breakthrough in defence technology with the successful testing of its first **long-range hypersonic missile**, signifying a leap in national security and strategic deterrence.

Why Is This Significant?

On **November 17**, the **Defence Research and Development Organisation (DRDO)** conducted a successful flight test of a hypersonic missile off the coast of Odisha.



- **Range:** Capable of striking targets over **1,500 km**.
- **Development:** Built indigenously by the **Dr. APJ Abdul Kalam Missile Complex**, Hyderabad, in collaboration with other DRDO labs and industry partners.
- **Applications:** Designed for use across the **Army, Navy, and Air Force**.

What Are Hypersonic Missiles?**Key Features:**

- **Definition:** Missiles that travel faster than **Mach 5** (five times the speed of sound).
- **Trajectory:** Unlike ballistic missiles, they can **manoeuvre mid-flight**, making them harder to detect and intercept.
- **Types:**
 - **Hypersonic Glide Vehicles (HGVs):** Launched by rockets and glide toward their targets.
 - **Hypersonic Cruise Missiles (HCMs):** Powered by high-speed **scramjet engines**.

Advantages:

- **Responsive Strike Capability:** Ideal for targeting time-sensitive or heavily defended threats.
- **Conventional Use:** Relies on **kinetic energy** for destruction without explosives.
- **Difficult to Detect:** Operates at lower altitudes, complicating radar tracking.

Challenges in Hypersonic Technology:

- **Extreme Heat:** Friction at high speeds generates immense heat, demanding advanced materials.
- **Precision Control:** Requires sophisticated manoeuvring systems at hypersonic speeds.
- **High Costs:** Development and deployment are resource-intensive.

India's Hypersonic Journey:

- **Initial Setbacks:**
 - In **2019**, the first test of the **Hypersonic Technology Demonstrator Vehicle (HSTDV)** faced challenges.
- **Breakthrough in 2020:**
 - A scramjet-powered vehicle achieved **Mach 6** for **23 seconds**, marking a critical milestone.
- **Continued Progress:**
 - Recent tests demonstrate India's growing expertise in long-range hypersonic weaponry.

India's First Hypersonic Missile Test: Highlights:

- **Speed & Agility:** The missile combines the speed of ballistic missiles with the manoeuvrability of cruise missiles.
- **Technical Specifications:**
 - **Speed:** Over **Mach 6**.
 - **Range:** Greater than **1,500 km**.
 - **Payload Versatility:** Designed for precision strikes across multiple domains.
- **Testing Location:** Launched from **Dr. APJ Abdul Kalam Island**, Odisha.

Global Context:

India joins an elite group of nations pursuing hypersonic missile technology:

- **Russia and China:** Leaders in deployment and operational capabilities.

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- **United States:** Investing heavily in hypersonic systems, with recent advancements like the **Long Range Hypersonic Weapon (LRHW)**.
- **Others:** Countries like France, Germany, and Japan are actively developing hypersonic capabilities.

Future Implications:

The successful test reinforces India's status as a global leader in advanced defence technology. It paves the way for:

- **Enhanced Strategic Deterrence:** Strengthens India's ability to counter threats.
- **Technology Export Potential:** Opens avenues for defence collaboration and exports.
- **Further Innovations:** Accelerates research in **hypersonic weaponry** and related fields.



India-Nigeria Bilateral Relations: A Strengthening Partnership

Context: India and Nigeria share a rich and dynamic relationship rooted in shared history and aspirations. This partnership spans economic, strategic, and cultural dimensions, reflecting their commitment to mutual growth and global cooperation.



What's Covered in This Article?

- Historical Ties
- Bilateral Trade
- Strategic Cooperation and Significance
- Multilateral Engagement and Common Platforms
- Indian Diaspora in Nigeria
- Challenges and Opportunities
- Key Highlights from Recent Developments

Historical Ties: A Legacy of Solidarity

- **Shared Colonial Struggles:** India and Nigeria's relationship traces back to their fight against colonialism.
- **Post-Independence Bond:** India's independence in 1947 and Nigeria's in 1960 laid the foundation for mutual solidarity.
- **Non-Aligned Movement (NAM):** Both nations have been staunch advocates of a non-aligned world during the Cold War.
- **Enduring Friendship:** Decades of cooperation have solidified a relationship based on mutual respect and shared values.

Bilateral Trade: Economic Pillar of Partnership:

Key Highlights:

- **Trade Volume:** Bilateral trade exceeds **USD 14 billion annually**, making Nigeria India's largest trading partner in Africa.
- **Imports from Nigeria:**
 - **Crude Oil:** Accounts for over **70% of India's imports**.
 - India is among the **top buyers of Nigerian oil** globally.
- **Exports to Nigeria:**
 - Pharmaceuticals, automobiles, engineering goods, textiles, and agricultural machinery.
- **Indian Investments in Nigeria:**
 - Companies like **Tata, Mahindra, and Bharti Airtel** have a significant presence, contributing to Nigeria's **economic development**.

Strategic Cooperation: A Multifaceted Partnership

Key Areas of Collaboration:

1. **Energy Security:**
 - Nigeria, as Africa's largest oil producer, plays a vital role in India's **energy requirements**.
2. **Defense and Security:**
 - Joint efforts in **counterterrorism, maritime security, and defense training programs** strengthen regional and global security.
3. **Agriculture and Technology:**
 - India aids Nigeria in **agricultural modernization and ICT development**, driving industrial growth.

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4. Education and Capacity Building:

- Through programs like ITEC, India has offered scholarships and training to develop Nigeria's human resources.

Multilateral Engagement: Collaborating on Global Platforms:

- **United Nations (UN):** Advocating for reforms in global governance, including the UN Security Council.
- **Commonwealth Membership:** Facilitates cultural and political collaboration.
- **India-Africa Forum:** Aligning on shared development goals under platforms like the African Union (AU).
- **South-South Cooperation:** Promoting growth in the Global South through avenues like BRICS and the G-77.

Indian Diaspora in Nigeria: Strengthening Ties:

- **Population:** Over 60,000 Indians reside in Nigeria.
- **Economic Impact:**
 - Indian-owned businesses significantly contribute to Nigeria's GDP and employment.
- **Cultural Exchange:**
 - Indian festivals, cuisine, and Bollywood have found a home in Nigeria, fostering mutual appreciation.
- **Healthcare Services:**
 - Indian doctors and healthcare professionals are widely respected for their contributions.

Challenges and Opportunities:

1. **Security Concerns:**
 - Issues like piracy and insurgency can impact investments and diaspora safety.
2. **Economic Diversification:**
 - A heavy reliance on oil necessitates greater focus on sectors like renewable energy and infrastructure.

Opportunities:

- **Expanding Trade:** Diversifying trade into renewables, manufacturing, and technology.
- **Enhanced Defense Cooperation:** Strengthening joint efforts in security and defense manufacturing.
- **Cultural Diplomacy:** Deepening cultural ties through the growing diaspora and Indian soft power.

Recent Developments: Strengthening the Bond

- **Historic Visit:**
 - Prime Minister Narendra Modi became the first Indian PM to visit Nigeria in 17 years, receiving Nigeria's Grand Commander of the Order of the Niger (GCON).
- **Key Agreements:**
 - Signing of three MoUs covering cultural exchange, customs cooperation, and surveys.
- **Disaster Relief:**
 - India provided 20 tonnes of relief supplies for flood victims in Nigeria.
- **Economic Contributions:**
 - Over 200 Indian companies have invested \$27 billion in Nigeria.
- **Focus Areas:**
 - Discussions included counterterrorism, developmental cooperation, and Africa's global role.

Conclusion:

India and Nigeria's robust partnership, driven by economic cooperation, strategic collaboration, and cultural exchange, reflects their shared commitment to mutual growth. Recent developments have further cemented this multifaceted relationship, marking a new chapter in their enduring friendship.

Kerala Suspends Two IAS Officers for Misconduct: A Case of Rules and Reforms

Context: Two IAS officers from Kerala have been suspended over alleged violations of conduct rules, reigniting debates about the professional ethics of civil servants and the need for clarity in their code of conduct.

Why in News?

The Kerala government has **suspended two senior IAS officers, N. Prashant and K. Gopalakrishnan**, on charges of misconduct.



- The suspensions bring attention to the **rules governing civil servants' behavior**, particularly regarding **social media usage** and maintaining **professional integrity**.

Allegations Against the Officers:**1. N. Prashant**

- Accusation:** Made **derogatory statements** on social media against A. Jayathilak IAS, Additional Chief Secretary.
- Violation:** Statements were deemed inappropriate for a public servant, tarnishing the image of the administration.
- Defense:** Prashant claimed the allegations were **baseless** and accused Jayathilak of orchestrating false reports.

2. K. Gopalakrishnan

- Accusation:** Created a religion-based WhatsApp group, '**Mallu Hindu Officers**', allegedly promoting **communal divisions** within the IAS cadre.
- Suspicion:** Despite claiming his phone was hacked, Gopalakrishnan's decision to reset his device before the inquiry raised doubts.

Conduct Rules for IAS Officers:

The **All-India Services (Conduct) Rules, 1968**, outline ethical standards for IAS, IPS, and Indian Forest Service officers.

Key Provisions:

- Ethics and Integrity:** Officers must uphold **political neutrality, constitutional values**, and ethical behavior.
- Social Media Usage:** Officers may use public platforms but are prohibited from **criticizing government policies**.
- General Conduct:** Actions considered **unbecoming of an officer** are strictly prohibited.
- Legal Recourse:** Officers require **government approval** to approach the press or courts for redress of grievances related to their official roles.

Issues and Recommendations for Improvement:**Key Issues in the Current Framework:**

- Ambiguity in Social Media Guidelines:**
 - Rules lack clarity on what constitutes permissible or inappropriate content online.
- Vagueness in "Unbecoming Conduct":**
 - The term remains subjective, creating opportunities for **misuse** or **bias** in enforcement.
- Power Imbalance:**
 - Junior officers may face undue scrutiny from **senior officials**, leading to an unequal application of rules.

Recommendations for Reform:

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1. **Clear Social Media Guidelines:**

- Define acceptable and unacceptable content related to **official duties**.
- Address **defamatory campaigns** targeting officers.

2. **Clarification of “Unbecoming Conduct”:**

- Develop a **reference list of behaviors** based on past incidents to minimize ambiguity.

3. **Promoting Responsible Anonymity:**

- Encourage officers to **maintain anonymity** when disseminating information about government initiatives, ensuring **professional neutrality**.

Conclusion:

The suspension of the two IAS officers underscores the urgent need for **clearer and more comprehensive rules** governing their conduct.

While **transparency and accountability** are vital, civil servants must strike a balance between **responsible communication** and **professional discretion** to uphold the **public image of the administration** and safeguard their integrity.

By revising and updating the **All-India Services Conduct Rules**, the government can ensure fairness, reduce ambiguity, and foster a more robust administrative framework.

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TOGETHER WE SCALE HEIGHTS

First-Ever Census of Indian Bisons (Gaurs) at Debrigarh Wildlife Sanctuary

Context: In a groundbreaking effort, the **first-ever census of Indian Bisons (Gaurs)** was recently conducted at the **Debrigarh Wildlife Sanctuary** in Odisha, marking an important milestone in the conservation of these magnificent creatures.

About Debrigarh Wildlife Sanctuary:

Nestled in the **Bargarh district of Odisha**, near the **Hirakud Dam** along the **Mahanadi River**, the **Debrigarh Wildlife Sanctuary** is a haven for a diverse array of wildlife.

**Historical Significance:**

The sanctuary is historically significant due to its connection with the **freedom fighter Veer Surendra Sai**, who used **Barapathara** within the sanctuary as his base during his rebellion against the British.

Protected Area Status:

Declared as a **wildlife sanctuary in 1985**, the sanctuary is home to a variety of flora and fauna.

- **Vegetation:** The area predominantly consists of **dry deciduous mixed forests**.
- **Flora:** The sanctuary boasts a wide range of trees, including **Sal, Asana, Bija, Aanla, and Dhaura**.

Fauna:

The sanctuary is home to a wide variety of animals, including **Tigers, Leopards, Sloth Bears, Hyenas, Spotted Deer, Antelopes, Nilgai, Langur Monkeys**, and the majestic **Indian Bison (Gaur)**, which was the focus of the recent census.

Key Facts about the Indian Bison (Gaur):

The **Indian Bison**, also known as the **Gaur**, is one of the largest wild cattle species in the world.

Physical Characteristics:

- **Size:** Adult gaurs can reach a **shoulder height of up to 220 cm**, making them one of the largest extant bovines.

Habitat and Distribution:

- **Habitat:** Gaurs are typically found in the **forested hills and grassy areas of South and Southeast Asia**.
- **Global Population:** The global population of Indian Bisons is estimated between **13,000 and 30,000**, with around **85% of the population found in India**. Other populations exist in **Burma and Thailand**.

Strongholds in India:

- The **Western Ghats**, particularly the **Wayanad, Nagarhole, Mudumalai, and Bandipur** complexes, serve as one of the largest strongholds of the gaur in India.

Cultural Significance

- The **Indian Bison** is the **State Animal** of both **Goa and Bihar**.

Conservation Status:

- **IUCN:** **Vulnerable**
- **CITES:** Listed in **Appendix I**, indicating a high level of protection.
- **Wildlife Protection Act:** The Indian Bison is included in **Schedule I**, offering it the highest level of protection under Indian law.



Conservation Efforts and Importance:

The census conducted at **Debrigarh Wildlife Sanctuary** highlights the importance of understanding and conserving the **Indian Bison**, a species that plays a crucial role in maintaining the ecological balance of the region. With the species classified as **vulnerable** by the **IUCN**, these efforts are essential to ensure the survival of this majestic animal in the wild.

The sanctuary, alongside other conservation initiatives across India, plays a pivotal role in protecting the **Indian Bison** and other endangered species, ensuring they thrive for generations to come.



RBI Issues New Guidelines for Internal Risk Assessment on Money Laundering and Terrorist Financing

Context: On November 18, 2024, the Reserve Bank of India (RBI) released its 'Internal Risk Assessment Guidance' to address Money Laundering (ML) and Terrorist Financing (TF) risks, marking a significant step in enhancing financial security.

Key Focus Areas of the Guidelines:

The new guidelines aim to implement a **data-driven, quantitative approach** to assessing and mitigating fraud risks. The RBI emphasizes the following:



- **Risk-Based Framework:** Ensuring a comprehensive approach encompassing **compliance, due diligence, and continuous monitoring** to address ML/TF threats.

Relevance of the New Guidelines:

- **Rising Incidents of Fraud:** The **RBI Annual Report 2023-24** reveals a significant spike in fraud cases, with the number of incidents rising from **13,564 in 2022-23 to 36,075 in 2023-24**, signaling an urgent need for improved risk management.
- **Global Economic Impact of Money Laundering:** According to the **United Nations Office on Drugs and Crime**, global **money laundering** activities amount to between **\$800 billion and \$2 trillion annually**, accounting for **2-5% of global GDP**. This highlights the vast scale of the problem and the need for stringent controls.
- **Risks Associated with Money Laundering and Terrorist Financing:**
 - **Political Risks:** Money laundering and terrorist financing can **weaken governments** and destabilize nations, affecting both domestic and international political environments.
 - **Security Threat:** **ML and TF are linked to threats of terrorism, including groups such as ISIL and Al-Qaeda, creating** internal and external security concerns.
 - **Economic Risks:** Frauds involving banks' resources for illicit activities can undermine the financial system, diverting funds from legitimate economic sectors.
 - **Social Consequences:** Money laundering and terrorist financing activities can exacerbate **social tensions** and lead to increased **communal strife** and criminal activities.

Initiatives to Combat Money Laundering and Terrorist Financing:**Global Efforts**

- **The Palermo Convention (2000):** An international treaty aimed at curbing **transnational organized crime**.
- **FATF Framework:** The **Financial Action Task Force (FATF)** provides global standards and recommendations for **anti-money laundering (AML)** and **counter-terrorist financing (CFT)** measures.

India's Legal and Institutional Framework:

- **Prevention of Money Laundering Act (PMLA), 2002:** India's primary legislation for tackling money laundering.
- **Financial Intelligence Unit (FIU-IND) and Enforcement Directorate (ED):** Key institutions involved in combating ML/TF.
- **Foreign Exchange Management Act (FEMA), 2000:** Regulates foreign exchange markets and addresses illegal financial activities.

The **RBI's new guidelines** represent a critical move toward **strengthening the country's financial system** and preventing illicit activities that could destabilize both the economy and security. With growing incidents of fraud and increasing global risks, the guidelines set a clear path for a more robust and **data-driven approach** to safeguarding the financial ecosystem.

Andaman and Nicobar Islands: India's Rising Tuna Export Hub

Context: The Union Government has prioritized transforming the Andaman and Nicobar Islands into a central hub for **tuna exports**, riding on the momentum of a **31.83% increase** in India's tuna exports during 2023-24. A strategic meeting with investors further underscores this initiative.

**About Tuna Fish:**

- **Habitat:** Tuna are **pelagic fish**, thriving in the upper layers of **tropical, subtropical, and temperate oceans**.
- **Key Species:** Commercially important species include **Albacore, Skipjack, Yellowfin, and Bluefin tuna** (three types).
- **Unique Traits:**
 - Unlike most fish, **tuna are warm-blooded**, maintaining body temperatures up to **12°C higher** than surrounding water.
 - Known for their **extensive migrations**, tuna traverse vast distances across the oceans.
 - They are among the **fastest fish**, capable of speeds up to **75 km/h**.

India's Tuna Export Potential:

- **Global Market:** The tuna industry is valued at **\$41.94 billion**, with the **Indian Ocean** contributing **21% of the world's tuna supply**, making it the **second-largest tuna-producing region globally**.
- **Andaman and Nicobar Islands as a Resource Hub:**
 - The region's **Exclusive Economic Zone (EEZ)** is abundant in various tuna species.
 - The **Union Fisheries Department** estimates the annual tuna yield potential at **64,500 tonnes**, with specific species breakdown:
 - **Yellowfin Tuna:** 24,000 tonnes – in high global demand.
 - **Skipjack Tuna:** 22,000 tonnes – used in canned products.
 - **Bigeye Tuna:** 500 tonnes – sought for sashimi.
 - **Neritic Tuna:** 18,000 tonnes – common in coastal waters.
- **Export Growth:** In **2023-24**, India exported **51,626 tonnes** of tuna, worth **\$87.96 million**.
- **India's Position:** Ranked among the **top 15 tuna-producing nations**, India significantly contributes to the **Indian Ocean's tuna supply**.
- **Largest Market:** **Japan** leads global tuna consumption, especially for **Bluefin tuna** used in sushi and sashimi.

Global Tuna Production Leaders:

- **Top Producers:**
 - **Indonesia** (largest producer).
 - Other key players: **Japan, the Philippines, and Taiwan**.

Andaman and Nicobar Islands: A Strategic Location

- **Geography:** Situated in the **Indian Ocean**, south of the **Bay of Bengal**, and close to **Indonesia**.
- **Island Groups:**
 - **Andaman Islands** lie north of the **10° N parallel**.
 - **Nicobar Islands** are located to the south.
- **Capital:** **Port Blair** serves as the administrative hub.
- **Composition:**
 - Total: **836 islands, islets, and rocky outcrops**, with only **38 permanently inhabited**.
 - **Nicobar Islands:** Comprise **22 main islands**, of which **10 are inhabited**.
- **Strategic Channel:** The **Ten Degree Channel** separates the Andaman and Nicobar Islands, spanning **150 km** in width.

Will India Emerge as a Winner or Loser in Trump's Trade War?

Context: The possibility of a new **trade war** under US President-elect Donald Trump has raised concerns worldwide. With significant implications for the global economy, **India's position** in this changing trade landscape demands attention.

A Glimpse into Trade Wars of the Past:**Historical Context: Reviving Tariff Conflicts**

Tariff wars—where countries impose heavy taxes on imports—have repeatedly disrupted global trade. Key historical examples include:

- **Fordney-McCumber Act (1922):** Raised US tariffs to safeguard domestic industries.
- **Smoot-Hawley Tariff Act (1930):** Escalated tariffs, triggering retaliatory measures and worsening the Great Depression.

Trump's Tariff Plans:**President-elect Trump has proposed:**

- **10%-20% tariff hikes** on all imports.
- **60% tariff increase on Chinese goods**, marking the most aggressive tariff strategy since the Cold War.

Global Repercussions of Higher Tariffs:**Impact on the US Economy:**

- **Increased Import Costs:** Tariffs typically raise prices for consumers. A Brookings study (2020) revealed that the **US-China trade war** hurt the American economy without resolving trade imbalances.
- **Retaliatory Tariffs:** Countries affected by US tariffs are likely to respond, neutralizing benefits for the US and driving up consumer prices on both sides.

India's Exposure to Trade Tensions:**India could be vulnerable to:**

- **Tariff hikes on key exports** like automobiles, textiles, and pharmaceuticals.
- Scrutiny of its **\$35.3 billion trade surplus** with the US, potentially prompting higher duties on Indian goods.

India's Strengths and Weaknesses in the Trade War:**Vulnerable Sectors:**

1. **Agriculture and Manufacturing:** Both face existing tariff challenges.
2. **Pharmaceuticals:** As the **world's largest generic drug exporter**, India may encounter resistance in the US market.
3. **Steel and Aluminum Exports:** These sectors are at risk due to previous US tariffs under Trump's presidency.

Strengths: India's Diversified Trade Partnerships:**India has broadened its trade network:**

- **China:** India's largest trading partner, with bilateral trade reaching **\$118.4 billion** in 2023-24.
- **Russia:** Trade with Russia has grown fivefold over five years, targeting **\$100 billion** by 2030.

Understanding Trade Wars:**What Are Trade Wars?**

A **trade war** occurs when countries impose escalating **trade barriers** to protect domestic industries, often as a response to unfair practices. These barriers can include:

- **Tariffs:** Taxes on imports to make foreign goods more expensive.
- **Import Quotas:** Restrictions on the volume of imports.
- **Domestic Subsidies:** Financial aid to local businesses, making exports competitive.





- **Currency Devaluation:** Lowering a currency's value to encourage exports.
- **Embargos:** Bans on trade with specific nations for political reasons.

Impact of Trade Wars: Short-Term vs. Long-Term

Short-Term Effects:

- Protection of **domestic industries** and job creation in select sectors.
- **Reduced competition** for local businesses.

Long-Term Effects:

- **Economic Slowdown:** Trade barriers disrupt global supply chains and comparative advantages.
- **Higher Prices:** Consumers face increased costs and fewer choices.
- **Reduced Innovation:** Protectionism discourages competition, slowing progress.

Conclusion:

India's fate in Trump's trade war depends on how it navigates its vulnerabilities while leveraging its diversified trade relationships. While the immediate risks to certain sectors are evident, India's strategic partnerships with **China, Russia, and other nations** could help mitigate the impact of US trade tensions. Balancing resilience and adaptability will be key to emerging as a **trade war winner**.



One Day, One Genome: Unlocking India's Microbial Potential

Context: The **One Day, One Genome** initiative, launched on the **1st Foundation Day of BRIC** at the **National Institute of Immunology (NII)**, aims to spotlight India's rich microbial diversity and its critical contributions to **environment, agriculture, and human health**.

About the Initiative:

Introduced By:

- **Department of Biotechnology (DBT)**
- **Biotechnology Research and Innovation Council (BRIC)**

Objective:

To release fully annotated **bacterial genomes**, isolated from India, and make them **freely accessible to the public**.

Key Features:

- Each genome will come with **detailed graphical summaries, infographics, and genome assembly/annotation details**.
- The initiative will promote the **scientific and industrial utility** of microbial resources.
- It will make **microbial genomics data** accessible to researchers, innovators, and the public, stimulating **community-wide discussions and innovations**.

Significance of One Day, One Genome:

1. **Harnessing Microbial Potential:** Genome sequencing will reveal **hidden capacities of microorganisms**, such as their ability to produce **enzymes, bioactive compounds**, or resist antimicrobials.
2. **Advancing Science and Industry:** The initiative bridges the gap between **scientific research and practical applications**, benefitting the **environment, agriculture, and human health sectors**.
3. **Sustainability and Innovation:** Encourages the **protection and sustainable use** of microbial diversity for the well-being of society and ecosystems.

Microorganisms: The Invisible Pillars of Life

Role in the Environment:

- Crucial for **biogeochemical cycles, soil formation, and mineral purification**.
- Aid in **decomposing organic waste** and removing toxic pollutants.
- Contribute to **methane production** and maintain planetary **homeostasis**.

Role in Agriculture:

- Facilitate **nutrient cycling, nitrogen fixation, and soil fertility**.
- Support **pest control** and help plants adapt to **stressful conditions**.
- Symbiotically enhance plant uptake of **water and nutrients**.

Role in Human Health:

- **Microbial cells outnumber human cells** in the body, playing a vital role in **digestion, immunity, and even mental health**.
- **Pathogenic microbes** cause diseases, but **non-pathogenic microbes** bolster defense mechanisms against infections.

Why It Matters:

The **One Day, One Genome** initiative emphasizes the immense **potential of microbes** to transform our understanding of the world and tackle pressing challenges in **environmental management, sustainable agriculture, and human well-being**. By **democratizing genome data**, it fosters innovation that benefits the entire ecosystem.





Cao Bang Crocodile Newt: A New Discovery in Vietnam

Context: The **Cao Bang crocodile newt** (*Tylototriton koliaensis*) is a newly identified species of crocodile newt found in the highlands of Vietnam. This discovery sheds light on the unique biodiversity of the region.



About the Cao Bang Crocodile Newt:

- **Scientific Name:** *Tylototriton koliaensis*.
- **Habitat:** Found in **mountain forests** of Vietnam, at elevations of **3,300 feet or higher**.
- **Climate:** Thrives in areas with a **cold, dry season** and a **warm, rainy season**.

Unique Features:

1. **Size and Appearance:**
 - Medium-sized, measuring approximately **5 inches in length**.
 - **Rough, knobby skin**, resembling that of a crocodile.
2. **Distinctive Colors:**
 - Entirely **black body** with **bright orange markings** on fingertips and toes.
 - **Dark gray belly** with an **orange stripe** running along the tail.
3. **Structure:**
 - **Large head** and **long, slender limbs**.
4. **Behavior:**
 - Breeds during the **rainy summer season** in **slow-flowing streams** or **temporary pools**.
 - Hides under **rocks and cavities** during the **winter months**.

What is a Crocodile Newt?

Crocodile newts belong to the **genus** *Tylototriton*, a group of salamanders native to **Asia**.

Key Characteristics:

- Known for their **rough, textured skin**, resembling a crocodile's hide.
- Generally **dark brown or black** with **bright orange or red markings** on their head, back, and tail.

Habitat:

- Found near **slow-moving streams, ponds, or marshes**, where they lay eggs and find food.

Examples of Crocodile Newts:

1. *Tylototriton verrucosus* (Himalayan crocodile newt).
2. *Tylototriton shanjing* (Emperor newt).
3. *Tylototriton kweichowensis* (Kweichow crocodile newt).

The **Cao Bang crocodile newt** adds to the growing list of unique amphibians in Southeast Asia, emphasizing the importance of preserving the **mountain forests of Vietnam** for future ecological discoveries.

ICRIER Policy Brief: Rationalizing India's Public Distribution System (PDS)

Context: A recent policy brief by ICRIER sheds light on persistent challenges in India's Public Distribution System (PDS) and suggests measures to reform the system for enhanced food and nutritional security.

Key Findings:**Leakages in the PDS:**

- 28% of allocated grains fail to reach intended beneficiaries, resulting in an estimated financial loss of ₹69,108 crores annually.

Impact of Reforms:

- Measures such as Aadhaar-linked ration cards and Point of Sale (PoS) machines in 95% of Fair Price Shops (FPS) have improved distribution efficiency. However, leakages persist.

Regional Disparities:

- States like Bihar and West Bengal have successfully reduced leakages.
- High leakages remain in Northeastern states like Arunachal Pradesh and Nagaland, as well as Gujarat, largely due to a lack of PDS digitalization.

Recommendations:**1. Effective Targeting of Beneficiaries**

- Reduce PDS coverage from the current 57% of the population to the bottom 15%, providing free food grains to the poorest.
- Supply grains at 50% of the MSP for other beneficiaries.

2. Transition to Direct Benefit Transfer (DBT)

- DBT reduces leakages, lowers administrative costs, and offers recipients greater flexibility in dietary choices.

3. Transform FPS into Nutrition Hubs

- Introduce a Food Coupon System in select FPSs to improve distribution and tackle grain siphoning.

Understanding the Public Distribution System (PDS):**Significance of PDS:**

- World's largest food distribution program, providing food security to millions.

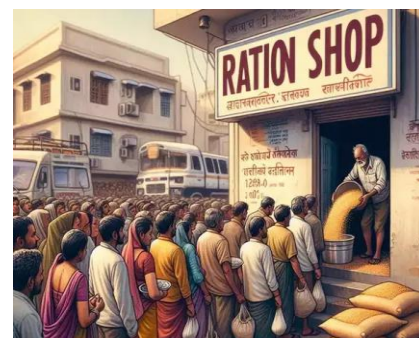
Operational Framework:

- **Centre (via FCI):** Procures, stores, and allocates food grains in bulk.
- **States:** Allocate grains within the state, issue ration cards, identify beneficiaries, and oversee FPS operations.

Evolution of PDS:

1. **Revamped PDS (1992):** Focused on poor households in select areas.
2. **Targeted PDS (TPDS) (1997):** Introduced income-based classification.
3. **Antyodaya Anna Yojana (AAY) (2000):** Special provisions for the poorest households.
4. **National Food Security Act (2013):** Legal entitlements to subsidized food grains.
5. **Pradhan Mantri Garib Kalyan Anna Yojana (PMGKAY) (2020):** Free food grain distribution during COVID-19.

ICRIER's recommendations emphasize the need for efficient targeting, minimizing waste, and transforming PDS into a holistic nutrition platform, ensuring food security while reducing financial losses.



GSAT-N2 (GSAT-20): India's Next-Gen Communication Satellite

Context: India's **GSAT-N2** (commonly known as **GSAT-20**), an **advanced communication satellite**, was recently launched aboard **SpaceX's Falcon-9 rocket**, showcasing a groundbreaking collaboration and heralding advancements in **data and internet connectivity**.

About GSAT-N2 (GSAT-20):

Key Highlights

- Developed by **New Space India Limited (NSIL)**, the commercial arm of **ISRO**, under the **Department of Space**.
- Launched into a **geosynchronous transfer orbit (GTO)** using **SpaceX's Falcon-9 rocket**.
- Designed to deliver high-speed **data and internet services to remote regions**, including in-flight connectivity, and to bolster India's **Smart Cities Mission**.



Satellite Features:

1. **High-Throughput Communication Satellite:**
 - Operates exclusively in the **Ka-band**.
 - Offers unparalleled data throughput of **48 Gbps**, making it India's highest-throughput satellite.
2. **Advanced Spot Beams:**
 - Features **32 user beams**:
 - **8 narrow spot beams** targeting the Northeast region.
 - **24 wide spot beams** covering the rest of India.
 - Supported by **hub stations** located across mainland India.
3. **Compact and Efficient Design:**
 - Supports a **large user base** using **small user terminals** for ease of access.
 - Total mass: **4,700 kg**.
 - Mission life: **14 years**.

Why Falcon-9 Was Chosen:

- ISRO's **Mark-3 launch vehicle** can place payloads of up to **4,000 kg** into GTO.
- GSAT-N2's heavier weight (**4,700 kg**) necessitated collaboration with **SpaceX**, marking ISRO's **first commercial partnership** with the company.

Significance of GSAT-N2:

1. **Enhanced Connectivity:**
 - Provides high-speed **internet and data services** to even the most remote parts of India.
 - Supports **in-flight internet connectivity** for airlines operating in the region.
2. **Boost to Smart Cities Mission:**
 - Ensures seamless communication infrastructure essential for India's **urban development initiatives**.
3. **Strategic Importance:**
 - Exclusive operation in the **Ka-band** strengthens India's position in the **satellite communication domain**.
 - Improves communication capabilities, vital for national growth and defense.

The launch of **GSAT-N2** represents a remarkable achievement for India, blending **innovative technology** with **global collaboration** to address the nation's growing communication needs. This satellite sets the stage for future advancements in **satellite communication and connectivity solutions**.

G20 Summit in Rio: Key Discussions on Trade, Climate, and Global Inclusion

Context: The **G20 Summit** commenced at Rio de Janeiro's Modern Art Museum, hosted by Brazilian President **Luiz Inácio Lula da Silva**. Key leaders, including **Prime Minister Narendra Modi**, **US President Joe Biden**, and **China's Xi Jinping**, are addressing pressing global issues such as **trade policies, climate action, and international security**.



Prime Minister Modi also delivered a speech during the opening session on **'Social Inclusion and the Fight against Hunger and Poverty'**.

About G20:**Overview:**

The **Group of 20 (G20)**, established in **1999**, is a global forum comprising finance ministers and central bank governors from **19 countries** and the **European Union (EU)**.

- **Elevated to Summit-Level:** In **2008**, the G20 became a forum for Heads of State/Government to address the **global financial crisis**.
- **Role:** Though it is not a legislative body, its agreements influence global policies on trade, development, and finance.

Members of G20:

- **Countries:** Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States.
- **Special Invitees:** Organizations like the **United Nations** and the **World Bank**, along with guest nations, participate in the summit.

Aims/Objectives of G20:

1. **Economic Stability:** Foster global economic growth and financial stability.
2. **Sustainable Development:** Tackle climate change and promote inclusive development.
3. **Crisis Management:** Address global crises like financial instability and pandemics.
4. **Global Collaboration:** Strengthen multilateral cooperation on trade and innovation.
5. **Inclusivity:** Advocate for the needs of both advanced and emerging economies, particularly the **Global South**.

Achievements of G20:

- **2008 Financial Crisis:** Prevented a deeper recession through coordinated responses.
- **Paris Agreement (2015):** Built consensus on climate change goals.
- **COVID-19 Response:** Launched the **Debt Service Suspension Initiative (DSSI)** and allocated \$5 trillion to mitigate the pandemic's economic impact.
- **Digital Transformation (2023):** India's G20 presidency emphasized building **digital public infrastructure** to address the global digital divide.

Key Highlights of PM Modi's Speech at G20 Summit:**Focus on SDGs:**

- Acknowledged Brazil's emphasis on **Sustainable Development Goals (SDGs)** and concerns of the **Global South**.
- Highlighted continuity with India's G20 theme: **"One Earth, One Family, One Future."**

India's Achievements in Poverty Alleviation and Food Security:

- **250 million people** lifted out of poverty in the past decade.
- **800 million citizens** receive free foodgrains under welfare schemes.
- **550 million individuals** benefit from the **world's largest health insurance program**.
- Advocated for a balanced approach of **'Back to Basics and March to the Future.'**

Global Contributions and Collaboration:

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Freedom UPSC with **Dhananjay Gautam** 28



- Extended food security assistance to **Africa** and provided humanitarian aid to countries like **Malawi, Zambia, and Zimbabwe**.
- Welcomed Brazil's proposal for a **Global Alliance Against Hunger and Poverty**.

Support for the Global South: Emphasized prioritizing food, fuel, and fertilizer security for developing nations impacted by global conflicts.

Women-Led Development and Nutrition: Highlighted initiatives fostering women-led development and nutrition security.

G20 Summit in Rio: Highlights

Contentious Ukraine War Discussions:

- **Challenges in Joint Statement:** Differences over the Ukraine war stalled consensus.
 - European leaders sought tougher language following recent Russian airstrikes.
 - The US announced lifting restrictions on Ukraine's use of **US-made weapons** for strikes within Russia.

Brazil's G20 Agenda:

- **Brazil's agenda focuses on:**
 - **Sustainable Development.**
 - **Taxing the super-rich** to reduce inequality.
 - Reforming global financial institutions.

Climate and Energy Commitments:

- **US Contributions:**
 - Pledged funds to the World Bank's **International Development Association**.
 - Launched a **clean energy partnership** with Brazil.
- **China's Initiatives:**
 - Promoted the **Belt & Road Initiative**, though Brazil has opted not to join.

Trade Tensions:

- Fear of an escalating **US-China trade war** due to potential **new tariffs**.
- Efforts to introduce a tax on the super-rich met resistance, notably from Argentina.

Conclusion: The **G20 Summit in Rio** underscores the importance of global cooperation in addressing pressing challenges such as economic stability, climate change, and social inclusion. While differences over issues like the Ukraine war persist, collaborative efforts in trade, sustainable development, and poverty alleviation remain central to the summit's agenda.

Should Fossil Fuels Be Regulated Like Nuclear Weapons?

Context: A growing coalition of **governments** and **civil society organizations** is advocating for a **Fossil Fuel Non-Proliferation Treaty (FF-NPT)**. This treaty aims to phase out fossil fuels and ensure a just transition to renewable energy.



What is the Fossil Fuel Non-Proliferation Treaty (FF-NPT)?

About the FF-NPT

- **Launched in 2019**, the FF-NPT builds on a concept first proposed in **2016**.
- It proposes a **legally binding framework** to:
 - End fossil fuel extraction.
 - Gradually phase out existing production.
 - Promote a **just transition** to renewable energy sources.

Objective

Inspired by **nuclear disarmament treaties**, the FF-NPT addresses the **escalating climate crisis** by curbing fossil fuel production while ensuring **equitable energy access** worldwide.

Origins and Evolution:

- The treaty was conceptualized alongside the signing of the **Paris Agreement** in 2015.
- Endorsements include:
 - Former UN Secretary-General **Ban Ki-Moon**.
 - **Indigenous communities** and **Small Island Developing States (SIDS)**.

Recent Developments:

- **COP29 in Baku, Azerbaijan:** Discussions expanded as **10 additional countries** joined talks on the FF-NPT.
- Endorsed by **13 Pacific Island States**, including **Vanuatu** and **Tuvalu**, and major fossil-fuel-producing nations like **Colombia**.
- Backed by **financial institutions**, including **25 members of the Global Alliance for Banking on Values**.

Need and Significance of the FF-NPT:

1. **Limitations of the Paris Agreement:**
 - While significant, it does not directly regulate **fossil fuel production**.
2. **Escalating Emissions:**
 - **Fossil fuel emissions** in 2024 are projected to be **8% higher** than in 2015.
 - Rising emissions are incompatible with the goal of limiting **global warming to 1.5°C**.
3. **Dire Warnings:**
 - 2024 is predicted to be the **hottest year on record**.
 - Current policies could lead to **3°C warming**, risking catastrophic outcomes for humanity.

Significance: The treaty complements the Paris Agreement by

- Supporting initiatives like the **New Collective Quantified Goal** to fund climate actions post-2025.
- Strengthening **Nationally Determined Contributions (NDCs)** and **Just Transition Work Programmes**.

Understanding the FF-NPT Framework and Challenges:

Framework: 3 Core Pillars

1. **Non-Proliferation:** Stop the expansion of **coal, oil, and gas production** through international collaboration.
2. **Fair Phase-Out:** Wealthier, historically high-emission nations take the lead in reducing existing production.

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3. **Just Transition:** Accelerate the adoption of renewable energy while ensuring **no community, worker, or nation** is left behind.

Challenges

- **Financial Hurdles:** Developing nations lack resources to transition away from fossil fuels or manage climate change impacts.
- **Global Cooperation:** Ensuring equitable contributions from **wealthier nations** remains a contentious issue.

India's Position and Way Ahead for FF-NPT:

India's Position

- While **not a signatory**, India is a major stakeholder in the global fossil fuel narrative: Emissions are projected to rise by **4.6% in 2024** (Global Carbon Project).
- Advocates suggest India could leverage the treaty to secure equitable outcomes for its energy transition needs.

Way Ahead

1. Align the FF-NPT with the **Paris Agreement's goals** to foster synergy between the two frameworks.
2. Mobilize funding mechanisms like the **New Collective Quantified Goal** to aid developing nations.

Conclusion

The **Fossil Fuel Non-Proliferation Treaty (FF-NPT)** presents a **bold vision** for addressing the climate crisis by regulating fossil fuel production akin to **nuclear disarmament**.

With increasing endorsements from governments, financial institutions, and vulnerable nations, the treaty highlights the need for:

- **Global cooperation.**
- **Equitable solutions** to balance development and sustainability.

However, significant financial and political challenges must be addressed to transform this vision into a legally binding reality.

World Anti-Doping Agency (WADA): Ensuring Fair Play in Sports

Context: India is set to host a 4-day **Global Learning and Development Framework (GLDF) Results Management Training** in collaboration with the **World Anti-Doping Agency (WADA)** in New Delhi, showcasing its commitment to promoting clean sports.

What is the World Anti-Doping Agency (WADA)?**About WADA:**

- **Established in 1999**, WADA is an **international independent agency** dedicated to fostering a global movement for **doping-free sports**.
- Its governance and funding are rooted in an **equal partnership** between the **sports movement** and **governments worldwide**.
- The agency's mission is to **develop, harmonize, and coordinate anti-doping rules** and policies across all sports and countries.

**Key Activities: WADA is involved in**

- **Scientific Research** to advance anti-doping measures.
- **Education** to promote awareness about doping.
- Building **anti-doping capacities** globally.
- **Monitoring the World Anti-Doping Code (Code)**, which unifies anti-doping regulations across sports and nations.

Formation of WADA:**Background**

- In the summer of **1998**, the cycling world faced a major doping scandal, prompting action.
- The **International Olympic Committee (IOC)** convened the **First World Conference on Doping in Sport** in **Lausanne, Switzerland**, from **February 2-4, 1999**.
- This conference resulted in the **Lausanne Declaration on Doping in Sport**, calling for an independent international anti-doping agency.

Establishment:

- On **November 10, 1999**, WADA was founded in Lausanne, Switzerland, as a **Swiss private law, not-for-profit foundation**.
- It became operational for the **Sydney 2000 Olympic Games** to **promote and coordinate anti-doping efforts internationally**.

Location:

- **Headquarters:** Montreal, Canada.
- **Official Seat:** Lausanne, Switzerland.

Governance Structure:**Foundation Board:**

- The **42-member Foundation Board** is WADA's highest **policy-making body**.
- It comprises:
 - Representatives from the **Olympic Movement** (e.g., the IOC, National Olympic Committees, International Sports Federations, and athletes).
 - Representatives from **governments of all five continents**.

Executive Committee

- The **16-member Executive Committee (ExCo)** manages the day-to-day operations of the agency.
- It oversees all WADA activities and the administration of its assets, as delegated by the Foundation Board.

WADA remains a **cornerstone of fair play**, ensuring athletes compete on a level playing field while promoting the integrity of sports globally.

Exercise Sanyukt Vimochan: Enhancing Disaster Response Capabilities

Context: The Indian Army recently conducted **Exercise Sanyukt Vimochan 2024** on **November 18-19, 2024**, at **Ahmedabad** and **Porbandar**, Gujarat. This annual exercise focuses on enhancing disaster response coordination through multilateral collaboration.

What is Exercise Sanyukt Vimochan?**Introduction:**

- **Sanyukt Vimochan** is a **multilateral annual joint Humanitarian Assistance and Disaster Relief (HADR) exercise**.
- It is organized by the **Konark Corps of the Southern Command** of the Indian Army.
- The 2024 edition took place in **Ahmedabad and Porbandar**, focusing on managing disasters in coastal regions.

Key Events of Sanyukt Vimochan 2024:**Tabletop Exercise in Ahmedabad:**

- The inaugural session featured a **Tabletop Exercise** themed around a simulated **Cyclone in the Coastal Region of Gujarat**.
- Attendees included representatives from:
 - **National Disaster Management Authority (NDMA)**.
 - **Gujarat State Disaster Management Authority (GSDMA)**.
 - **Meteorological Department**.
 - **FICCI**, alongside officials from the **Indian Armed Forces**.
- The focus was on identifying **gaps in interagency coordination** and strengthening disaster response strategies.

Multi-Agency Capability Demonstration in Porbandar:

- Held at **Chowpatty Beach** on **November 19, 2024**, this demonstration showcased collaborative disaster management in a simulated cyclone scenario.
- Participating agencies included:
 - **Indian Army, Navy, Air Force, and Coast Guard**.
 - **National Disaster Response Force (NDRF)** and **State Disaster Response Force (SDRF)**.
 - Various **Central and State agencies**.
- Key activities involved **rapid logistics, effective response planning**, and execution of coordinated disaster management strategies.

International Collaboration:

- **15 senior officials** and representatives from **nine friendly foreign countries**, including nations from the **Gulf Cooperation Council (GCC)**, **Indian Ocean Region (IOR)**, and **Southeast Asia**, participated in the exercise.

Significance of Exercise Sanyukt Vimochan:

- **Enhancing National Response:** Strengthened India's capacity to manage natural disasters efficiently.
- **Promoting Global Dialogue:** Contributed to international cooperation and shared best practices in **Humanitarian Assistance and Disaster Relief (HADR)**.
- **Building Interagency Collaboration:** Improved synergy among military and civilian agencies to ensure swift, coordinated disaster responses.

Exercise **Sanyukt Vimochan 2024** underscored India's commitment to **preparedness, resilience**, and **global collaboration** in managing humanitarian crises effectively.



India's 56th Tiger Reserve: Guru Ghasidas-Tamor Pingla in Chhattisgarh

Context: In a significant move for wildlife conservation, the **Indian government** has officially notified the **Guru Ghasidas-Tamor Pingla Tiger Reserve** in **Chhattisgarh** as the country's **56th Tiger Reserve**. This newly established reserve is set to become the **third-largest** tiger reserve in India.

Key Features of the Guru Ghasidas-Tamor Pingla Tiger Reserve:

- **Geographical Spread:** The reserve spans several districts in Chhattisgarh, including **Manendragarh-Chirmiri-Bharatpur, Korea, Surajpur, and Balrampur**.
- **Total Area:** Encompassing a vast **2,829.38 sq. km**, the reserve includes:
 - **Core Tiger Habitat: 2,049.2 sq. km** (Guru Ghasidas National Park and Tamor Pingla Wildlife Sanctuary).
 - **Buffer Zone: 780.15 sq. km.**
- **Ecological Connectivity:** The reserve is part of an expansive **landscape complex** of nearly **4,500 sq. km**, connected to the **Sanjay Dubri Tiger Reserve** in **Madhya Pradesh**, and further linked to the **Bandhavgarh Tiger Reserve** in the west and **Palamau Tiger Reserve** in the east.

Historic Approval and Notification:

- The **National Tiger Conservation Authority (NTCA)** granted **final approval** for the notification of the **Guru Ghasidas-Tamor Pingla Tiger Reserve** in **October 2021**. It was officially notified by the **Government of Chhattisgarh**, marking a crucial step in enhancing tiger conservation efforts in the region.
- **Union Minister of Environment, Forest and Climate Change, Bhupendra Yadav**, celebrated the milestone on **X (formerly Twitter)**, stating: "Let the roars get louder! As India continues to touch new milestones in tiger conservation, we have notified Guru Ghasidas-Tamor Pingla as the 56th tiger reserve."

Biodiversity and Conservation Significance:

- **Diverse Ecosystems:** Located across the **Chota Nagpur Plateau** and the **Baghelkhand Plateau**, the reserve boasts a range of terrains including dense forests, streams, and rivers—essential habitats for the Bengal tiger and other species.
- **Rich Biodiversity:** The **Zoological Survey of India** has documented **753 species** within the reserve, including:
 - **365 invertebrates** (mainly insects).
 - **388 vertebrates**, including **230 bird species** and **55 mammal species**, many of which are threatened.
- The reserve forms a critical habitat for the **Bengal tiger** and many other endangered species, making it an essential addition to India's growing network of tiger reserves.

India's Tiger Reserve Legacy:

India has made remarkable strides in **tiger conservation** through its **Project Tiger** initiative, which began in 1973. Here is a glimpse into the history of India's **tiger reserves**:

- **First Tiger Reserve:** The first-ever tiger reserve, **Jim Corbett Tiger Reserve**, was established in **Uttarakhand** in **1973** as part of Project Tiger.
- **Expansion of Tiger Reserves:** Over the decades, the network of tiger reserves expanded significantly. India now boasts 56 tiger reserves, a vital part of the country's conservation efforts for the **Bengal tiger**.
- **Project Tiger:** This initiative has played a pivotal role in the increase of tiger populations in the country, and today, India is home to nearly **70%** of the world's tiger population.



The addition of **Guru Ghasidas-Tamor Pingla Tiger Reserve** is a significant step towards ensuring a **sustainable future** for India's wildlife, particularly tigers. The reserve will help further strengthen the tiger corridors and promote **biodiversity conservation** in the region.

Chhattisgarh's Role in Tiger Conservation:

- **Boost to Conservation Efforts:** With the addition of **Guru Ghasidas-Tamor Pingla**, Chhattisgarh now hosts **four tiger reserves**, reinforcing the state's commitment to tiger protection under the **National Tiger Conservation Authority (NTCA)** and the **Project Tiger** initiative.



Italy-India Joint Strategic Action Plan 2025-2029: Strengthening Bilateral Ties

Context: India and Italy unveiled a **five-year Joint Strategic Action Plan** that outlines an ambitious vision for their collaboration across key sectors such as **defense, energy, trade, and technology**. This plan is designed to deepen the bilateral partnership and create new opportunities for both nations in various strategic domains.

**Key Highlights of the Joint Strategic Action Plan:****1. Economic Cooperation: A Focus on Growth and Sustainability**

- **Trade & Investment:** Both countries have agreed to enhance cooperation in sectors like **green technologies** and **pharmaceuticals**. The **Joint Commission for Economic Cooperation** will drive this initiative, alongside a **Working Group on Food Processing** to boost trade in these critical industries.

2. Connectivity: Strengthening Global Trade Links

- **India-Middle East-Europe Economic Corridor (IMEEC):** A significant highlight of the plan, IMEEC aims to improve **connectivity and trade** between **India, the Middle East, and Europe**, positioning the two countries at the center of a transformative economic corridor.

3. Science and Technology: Advancing Innovation Together

- **AI and Digitalization:** India and Italy have committed to expanding cooperation in **artificial intelligence (AI), digitalization, and other critical technologies**. The **2025-2027 Executive Programme for Scientific & Technological Cooperation** will lay the groundwork for this collaboration.
- **Innovation & Incubation:** A new **Indo-Italian Innovation and Incubation Exchange Program** has been introduced to foster greater **academic and industrial partnerships**, driving forward research and innovation.

4. Energy Transition: A Joint Commitment to Sustainability

- **Tech Summits and Alliances:** Both countries have agreed to organize **Tech Summits** and strengthen their alliances with global initiatives such as the **Global Biofuels Alliance** and the **International Solar Alliance**. This will further their shared commitment to clean energy and **sustainable development**.

5. Defense Cooperation: Enhancing Strategic Partnerships

- **Defense Consultations:** India and Italy will hold **annual Joint Defense Consultative (JDC) meetings** and **Joint Staff Talks (JST)** to improve coordination in defense matters.
- **Defense Industrial Cooperation:** A **Defense Industrial Roadmap** will be developed to foster collaboration in **defense manufacturing**, enhancing self-reliance and strategic capabilities.

A Look at India-Italy Bilateral Relations:**Political Ties: Long-standing Diplomatic Partnership:**

- Diplomatic relations between **India and Italy** were officially established in **1947**, setting the stage for deepening political and economic cooperation over the decades.

Economic Engagement: A Strong Trade Partnership:

- **Italy is India's 4th largest trading partner** in the **European Union**. Bilateral trade reached over **US\$ 14.253 billion** in the 2022-23 period, with the **balance of trade** favoring India, further underscoring the robust economic ties between the two nations.

Indian Diaspora in Italy: A Vital Link:

- The **Indian diaspora** in Italy is estimated to be around **2 lakh people**, playing a key role in strengthening people-to-people connections and contributing to both countries' cultural and economic landscapes.



Migration and Mobility: A New Agreement:

- A **Migration and Mobility Partnership Agreement** was signed in **2023** between India and Italy to promote **safe and legal migration**, facilitating the movement of individuals between the two nations while ensuring their protection and rights.

Conclusion: A Future of Collaborative Growth

The **Joint Strategic Action Plan 2025-2029** represents a significant leap in **India-Italy relations**, setting the stage for closer collaboration across multiple sectors. By focusing on **economic growth**, **energy transition**, **technological advancements**, and **defense cooperation**, both nations are poised to build a more **sustainable** and **prosperous** future together. This partnership is a clear reflection of the evolving global dynamics, where India and Italy continue to play pivotal roles in fostering international cooperation and growth.



African Penguins: Endangered and Fighting for Survival

Context: Listed as **Critically Endangered** by the **International Union for Conservation of Nature (IUCN)**. Global population plummeted to **fewer than 10,000 breeding pairs**, compared to **42,500 pairs in 1991**. At this rate, **extinction in the wild is projected by 2035**, warns **BirdLife NGO**.

Key Threats:

- Food Scarcity:**
 - Declining stocks of **sardines and anchovies**, their primary diet, result in **abandoned breeding**.
- Climate Change:**
 - Shifting ocean temperatures disrupt fish distribution.
- Human Impacts:**
 - Oil spills, industrial activities, and tourism** disturb habitats.
- Predators and Disease:**
 - Threats from **seals, sharks**, and land predators like **feral cats**; outbreaks of diseases further stress the population.

**Conservation Efforts to Save the Penguins:****Fishing Ban:**

- A **10-year ban on commercial fishing** around six penguin colonies began in **January 2024**.
- Conservationists** argue the no-fishing zones are too small and have filed a lawsuit seeking expansion.
- The **fishing industry** claims its impact on penguin food sources is minimal.

Other Measures:

- Installation of **artificial nests** and attempts to establish new colonies.
- Government discussions and a court hearing on broader conservation strategies scheduled for **March 2025**.

Balancing Tourism and Awareness:**Impact of Critically Endangered Status:**

- Increased Awareness:** Brings in funding for conservation but also encourages **tourist activity**, risking disturbance.
- Overenthusiastic visitors with **selfie sticks** and excessive closeness harm penguin well-being.

Economic Importance:

- Penguin tourism** generates millions of dollars annually for South Africa, creating a complex balance between conservation and economic gain.

About the African Penguin:**Physical Features**

- Medium-sized, **flightless seabird** with **black-and-white plumage** and unique **black spots on its chest**.
- Known as the "**jackass penguin**" for its distinctive braying call.

Habitat and Diet:

- Found along the **southwestern coast of Africa**, inhabiting **offshore islands** and **coastal areas** in South Africa and Namibia.
- Diet includes **small fish** like sardines and anchovies, along with **squid** and **crustaceans**.

Breeding and Behavior:

- Monogamous:** Penguins return to the same mate and nesting site annually.
- Burrow Breeding:** They build nests under **rocks, vegetation**, or burrows for protection from predators and the sun.
- Both parents share duties of **incubating eggs** and **caring for chicks**.



Significance of the African Penguin:

- 1. Ecosystem Health Indicator:**
 - The species reflects the overall **health of marine ecosystems**.
- 2. Tourism Magnet:**
 - Major attraction contributing significantly to local economies.
- 3. Global Conservation Icon:**
 - Highlights the importance of **sustainable practices** to protect **marine biodiversity**.

Urgent action is critical to prevent the extinction of these iconic seabirds. Conservation measures, sustainable fishing, and public awareness can collectively ensure a future where African penguins thrive.



Measuring Unemployment in India

Context: Unemployment refers to individuals who are **willing and capable of working**, actively seeking jobs, but are **unable to find employment** at prevailing wages. It serves as a critical measure of a country's **economic health**, reflecting **productivity, economic activity, and social well-being**.

Types of Unemployment:

1. **Cyclical Unemployment:** Arises due to **economic fluctuations**—job losses during downturns.
2. **Structural Unemployment:** Caused by a **skills mismatch** or **technological advancements**, leaving workers unfit for available jobs.
3. **Frictional Unemployment:** Temporary unemployment during **job transitions** or **re-entry into the workforce**.
4. **Seasonal Unemployment:** Found in industries like **agriculture** or **tourism**, with employment fluctuating by season.
5. **Disguised Unemployment:** Seen when **more workers** are engaged than necessary, especially in **low-productivity sectors** like agriculture.

How is Unemployment Measured in India?

1. National Sample Survey Office (NSSO):
 - **Usual Principal and Subsidiary Status (UPSS):** Classifies individuals based on the activity they spent the **most time on in the previous year**.
 - An individual working in any capacity for at least **30 days in a year** is counted as employed.
 - **Current Weekly Status (CWS):** Uses a shorter reference period of **seven days**.
 - If an individual works for **at least one hour** during the week, they are considered employed.
2. Centre for Monitoring Indian Economy (CMIE):
 - An independent organization providing **high-frequency data** on unemployment.
 - Conducts the **Consumer Pyramids Household Survey (CPHS)**, updated monthly to track trends.

Key Unemployment Indicators in India:

1. **Unemployment Rate (UR):** The percentage of the **labor force** actively seeking work but unemployed.
2. **Labour Force Participation Rate (LFPR):** The share of the **working-age population** either working or seeking work.
3. **Worker Population Ratio (WPR):** The percentage of the **working-age population** currently employed.

Challenges in Measuring Unemployment:

1. **Informal Sector Dominance:** India's large informal economy makes **accurate data collection difficult**.
2. **Underemployment:** Many work in **low-productivity jobs**, hiding the true extent of unemployment.
3. **Data Timeliness:** Delays in collection and reporting hinder **real-time assessment**.

Government Initiatives to Reduce Unemployment:

1. **Skill India Mission:** Provides **vocational training** to align workforce skills with industry needs.
2. **Make in India:** Focuses on expanding **manufacturing** to generate employment.
3. **Atmanirbhar Bharat:** Promotes **domestic production** and job creation.
4. **Startup India:** Encourages **entrepreneurship** and innovation to create jobs.

News Highlights: Decline in Urban Unemployment:

The National Statistical Office (NSO) reported a record-low urban unemployment rate of **6.4%** for **July-September 2024**, down from **6.6%** in the previous quarter. This is the **lowest rate** recorded since the **Periodic Labour Force Survey (PLFS)** began in 2018.

Key Labour Market Indicators:

- **LFPR:** Rose to **50.4%**, a record high.
- **WPR:** Increased to **47.2%**, indicating more individuals are employed.

Gender-Specific Trends:

- **Female Unemployment:** Dropped to **8.4%**, the lowest recorded, though consistently above **8%**.
- **Male Unemployment:** Declined to **5.7%**, from **6%** a year ago.

Shift in Employment Types:

- **Regular wage/salaried workers:** Increased to **23.1%**, up from **22%** last year.

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MEASUREMENT OF UNEMPLOYMENT IN INDIA





To the Point

Weekly Current Affairs

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- **Self-employed workers:** Rose to **15.3%**, reflecting growth in entrepreneurial activity

Conclusion:

India's urban unemployment rates are improving due to **increased economic activity** and **boosted hiring** by **MSMEs**. However, challenges like the **informal economy** and **underemployment** remain, requiring sustained government efforts and private sector collaboration.



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Freedom UPSC with **Dhananjay Gautam**

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Green World Environment Award 2024

Context: Coal India Limited (CIL), a leading state-owned coal mining corporation, has been awarded the 'Green World Environment Award 2024' in the CSR category for its impactful initiatives in healthcare sustainability.



About the Green World Environment Award

- **Significance:**

Recognizes organizations for **outstanding contributions to environmental sustainability** and **Corporate Social Responsibility (CSR)** globally.

- **2024 Recipient:**

- **Coal India Limited (CIL)** for its **Thalassemia Bal Sewa Yojna**, which provides **curative treatments for Thalassemia** through **Bone Marrow Transplants (BMT)**.
- Financial assistance of up to **₹10 lakh** is offered for BMT operations across **17 partner hospitals**.

- **Presented**

The award was conferred by **The Green Organisation** at **Kensington Palace, London**.

By:

About The Green Organisation

- **Founded:** 1994.
- **Nature:** Independent, non-political, and non-profit group.
- **Objective:** To recognize, reward, and promote **environmental and CSR best practices** worldwide.
- **Initiatives:**
 - Hosts global awards such as the **Green World Awards** to encourage **sustainability and CSR excellence**.

About Coal India Limited (CIL)

- **Establishment:** November 1975.
- **Largest Producer:**
 - World's **largest coal producer** and one of India's biggest corporate employers.
 - Produces **83% of India's overall coal production**, meeting approximately **40% of the country's primary commercial energy needs**.
- **Subsidiaries:**

Seven major producing subsidiaries operate under CIL.
- **Role in Energy:**
 - Coal is the backbone of India's **primary commercial energy needs**, accounting for **57% of energy dependency**, with CIL playing a pivotal role in energy security.

This recognition underscores CIL's efforts in **healthcare support** and its broader commitment to **sustainable development**.



India Fines Meta \$25.4 Million, Restricts WhatsApp Data Sharing

Context: The **Competition Commission of India (CCI)** has imposed a **\$25.4 million fine on Meta** and prohibited **WhatsApp** from sharing user data with other **Meta-owned entities** for advertising purposes for the next five years.



Background: The Data Privacy Controversy:

- **2021 Privacy Policy Update:** WhatsApp's updated privacy policy allowed **data sharing with Facebook** and its subsidiaries.
 - This sparked a **global backlash** due to concerns over **user privacy** and potential **anti-competitive practices**.
- **CCI Investigation:**
 - In **March 2021**, the CCI launched an investigation into WhatsApp's updated policy, deeming it a **violation of antitrust regulations**.

India's Regulatory Actions:

- **Panel Recommendations:**
 - A Ministry of Corporate Affairs panel emphasized the need for **stricter digital competition regulations** to address rising concerns regarding large tech companies.
- **Digital Competition Bill:**
 - The government is considering introducing a **Digital Competition Bill**, inspired by the **EU's antitrust frameworks**.
 - This bill is expected to **complement existing antitrust laws** and ensure fair competition in the digital space.

Competition Commission of India (CCI):

- **Role and Establishment:**
 - The CCI was constituted in **March 2009** under the **Competition Act, 2002** to promote **fair competition**, prevent **anti-competitive practices**, and safeguard **consumer interests**.
 - It replaced the outdated **MRTP Act, 1969**, following recommendations by the **Raghavan Committee**.
- **Structure:**
 - The Commission comprises **one Chairperson** and **six Members**, appointed by the **Central Government**.

Significance of the Fine:

- **Major Antitrust Action:**
 - The fine and restrictions signal India's **growing regulatory scrutiny** of tech giants.
 - It underscores the government's commitment to **upholding data privacy** and promoting **fair competition**.
- **Global Implications:**
 - The case echoes global concerns over the **dominance of big tech firms** and the need for stringent digital regulations.

Conclusion:

India's move to fine Meta and restrict WhatsApp's data-sharing practices sets a precedent for **digital privacy** and **fair competition** in one of the world's largest digital markets. With the upcoming **Digital Competition Bill**, the country aims to reinforce its regulatory framework and address the challenges posed by **big tech's dominance**.

India's Maritime Sector: Enhancing Connectivity and Infrastructure

Context: The Ministry of Ports, Shipping, and Waterways of India, in collaboration with the Observer Research Foundation (ORF), recently hosted the inaugural Sagarmanthan: The Great Oceans Dialogue. This event highlighted crucial developments in India's maritime sector, focusing on maritime logistics, ports, and shipping.

Key Developments in India's Maritime Sector:

1. **Chennai-Vladivostok Eastern Maritime Corridor:**
 - **Operational Since 2023:** The new maritime route between India and Far East Russia cuts the travel distance and significantly reduces transport time. It facilitates key imports like **crude, food, and machinery**.
 - **Strategic Impact:** The route strengthens trade between the two nations, boosting **economic connectivity** and enhancing India's global maritime presence.
2. **India-Middle East-Europe Economic Corridor (IMEC):**
 - **Collaborative Project with Greece:** Announced during the **G20 Summit 2023**, this ambitious corridor will integrate **sea, rail, and road** routes to boost trade between **India, the Middle East, and Europe**.
 - **Multi-modal Connectivity:** IMEC will include **railroad networks, ship-to-rail connections, hydrogen pipelines, and high-speed data cables** for enhanced economic and energy cooperation.
3. **Maritime Vision 2047**
 - **India's Ambition:** India aims to be the **top maritime nation** by 2047. Key goals include enhancing **port infrastructure, ship ownership, and shipbuilding** capabilities.
 - **Port Capacity Expansion:** India plans to increase its **port handling capacity to 10,000 million metric tonnes per annum** by 2047.
4. **Massive Investment in Maritime Infrastructure:**
 - **Rs 80 Lakh Crore Investment:** India is making significant investments in projects such as the **Vizhinjam International Seaport (Kerala)**, new mega ports in **Vadhavan (Maharashtra)** and **Galathea Bay (Nicobar Islands)**.
 - **Sustainability Focus:** There is a shift towards building ships powered by **clean fuels** like **ammonia, hydrogen, and electricity**.
5. **Improved Port Efficiency:**
 - **Reduced Turnaround Time:** The **port turnaround time** has significantly improved, dropping from **over 40 hours to 22 hours**, outperforming countries like the **US and Singapore**.
6. **Revamped Maritime Legislation:**
 - The introduction of acts like the **Major Port Authority Act (2021)**, **National Waterways Act (2016)**, and **Inland Vessel Act (2021)** have accelerated growth in ports, waterways, and ship recycling.
 - The upcoming **Coastal Shipping Bill (2024)** and **Merchant Shipping Bill (2020)** are set to further enhance India's maritime capabilities.

**Chennai-Vladivostok Maritime Corridor: Key Facts**

- **Operational Since 2023:** This sea link connects the **east coast of India** with **Vladivostok**, Russia's largest Pacific port.
- **Distance Reduction:** The new route shortens the journey from **8,675 nautical miles** (via Europe) to **5,600 nautical miles**.
- **Time Reduction:** The transit time has been cut from **40 days** to just **24 days**, reducing delays and boosting trade efficiency.

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- **Strategic Importance:** Vladivostok's proximity to the **China-Russia border** makes it crucial for India-Russia trade, especially in **coking coal, oil, fertilizers, LNG**, and more.
- **Complementary Routes:** The corridor aligns with initiatives like the **Northern Sea Route** and the **International North-South Transport Corridor (INSTC)**.

Challenges in India's Maritime Sector:

1. **Competition from China:**
 - **China's Maritime Power:** China has emerged as a **global maritime leader** with a dominant **navy, merchant fleet, and port infrastructure**, further strengthened by its **Belt and Road Initiative (BRI)**.
2. **Inefficient Port Infrastructure:**
 - **Delays in Modernization:** Despite initiatives like **Sagarmala**, many ports still face delays in modernization and **intermodal connectivity** issues, especially linking ports with inland transport.
3. **Lack of Private Sector Involvement:**
 - **Insufficient Private Participation:** India's maritime economy, particularly in **port-led industrialization**, is still hindered by low private sector investment.
4. **Environmental Concerns:**
 - **Sustainability Issues:** **Port development** and **maritime trade** often face **environmental scrutiny**, particularly regarding coastal **ecosystem degradation** and the **environmental impact** of large infrastructure projects.
5. **Geopolitical Challenges:**
 - **New Maritime Risks:** Increasing **geopolitical tensions** and risks from **non-state actors** (e.g., attacks on commercial vessels) pose threats to India's maritime trade.
6. **Dependence on Foreign Shipbuilding:**
 - Despite efforts to boost **indigenous shipbuilding**, India remains largely dependent on **foreign technology** for **shipbuilding** and **maritime equipment**.

Conclusion:

India's maritime sector is undergoing transformative growth with strategic initiatives aimed at enhancing **trade connectivity, port efficiency, and sustainability**. While challenges remain, including **competition from China, infrastructure inefficiencies, and private sector participation**, India's ambitious goals for 2047 position the country as a rising global maritime power. The ongoing investments and **collaborative international projects** like the **IMEC** and **Chennai-Vladivostok Corridor** are set to redefine India's position in the global maritime landscape.

Tropical Rainforests: Resilient to Global Warming?

Context: A recent study by IIT Kharagpur sheds light on the **resilience of tropical rainforests** in the face of **global warming**. The research, based on fossilized tropical rainforests found in **Vastan coal mines** (Gujarat), reveals that these ecosystems may have the potential to withstand future climate changes, much like they did during a period of extreme warming millions of years ago.

**The Palaeocene-Eocene Thermal Maximum (PETM) and Its Lessons:**

- **What is PETM:** The **Palaeocene-Eocene Thermal Maximum (PETM)**, occurring around **56 million years ago**, was a period marked by a **dramatic global temperature rise**. This event lasted about **100,000 years** and saw a spike in **atmospheric CO₂ levels**. Despite this extreme warming, tropical rainforests managed not only to **survive** but also **diversify**.
- **Fossil Evidence from Vastan Coal Mines:** Fossils of **plants, pollen, mammals, and insects** from the PETM era were found in the coal layers of the **Vastan coal mines** in Gujarat. These fossilized remains provide invaluable insight into the biodiversity of tropical rainforests during a time when **India was a tropical island** surrounded by high levels of CO₂.

Key Findings: Why Did Tropical Rainforests Survive PETM?

- **Rainfall-Buffered Temperature:** One of the significant findings of the study is that **increased rainfall** during the PETM may have played a crucial role in **buffering temperatures**. The excess rainfall helped **lower temperatures**, creating a more stable environment that allowed tropical rainforests to **thrive** despite the high CO₂ levels and rising global temperatures.
- **Diversity and Adaptation:** Even under extreme climatic conditions, these rainforests were not only able to survive but **diversified**. This suggests that tropical rainforests may have natural mechanisms that can help them **adapt** to temperature shifts, provided there is sufficient **rainfall**.

Understanding Rainforests and Their Global Significance

- **What Are Rainforests:** Tropical rainforests are dense forests that are rich in **tall, mostly evergreen trees**. They thrive in areas that receive substantial rainfall, typically between the **Tropics of Cancer and Capricorn**. Major rainforest regions include parts of **Central and South America, Africa, Western India, Southeast Asia, Australia, and the Pacific Islands**.
- **Importance of Rainforests:** Rainforests are crucial for global **biodiversity, carbon sequestration**, and maintaining ecological balance. They support diverse species of plants, animals, and insects, and regulate local and global **climates** by absorbing carbon dioxide and producing oxygen.

Implications for the Future of Rainforests:

This study offers a **hopeful perspective** for the future of tropical rainforests amidst concerns over **climate change**. If the pattern observed during the PETM is applicable today, tropical rainforests may have an innate resilience that could help them **withstand future global warming**, as long as **rainfall patterns** are preserved.

Conclusion:

The research from IIT Kharagpur underscores the **resilience** of tropical rainforests, suggesting that despite the challenges posed by **global warming**, these ecosystems may be able to **adapt and survive**—just as they did during the **Palaeocene-Eocene Thermal Maximum**. As we continue to study these natural systems, understanding the role of **rainfall-buffered temperature** could be crucial in formulating conservation strategies to protect these vital ecosystems in the future.

Key Facts About Guyana: A Nation with Rich History and Promising Future

Context: The recent visit of the **Indian Prime Minister to Guyana** marks a historic moment, being the first visit by an Indian leader in over 50 years. This highlights the enduring ties between the two nations, driven by shared history and diaspora connections.

Geographical Overview:

- **Location:** Guyana is situated in the **northeastern corner of South America**.
- **Borders:**
 - **North:** Atlantic Ocean
 - **East:** Suriname (separated by the Courantyne River)
 - **South and Southwest:** Brazil
 - **West:** Venezuela
 - **Maritime Neighbors:** Barbados and Trinidad and Tobago:
- **Connection to the Caribbean:** Despite its location in South America, Guyana shares strong **cultural and historical ties to the Caribbean** and is a founding member of the **Caribbean Community (CARICOM)**.

**Historical Insights:**

- **Indigenous Roots:** The name “**Guyana**,” derived from the indigenous term “**guiana**,” means “**land of water**.”
- **Colonial Legacy:**
 - Initially a **Dutch colony** in the 17th century.
 - Became a **British possession** by 1815.
- **Independence:** Guyana gained **independence from the UK in 1966** and has been a member of the **Commonwealth** since 1970.
- **Colonial Disputes:** The country is engaged in **territorial disputes with Suriname and Venezuela**, rooted in its colonial past.
- **Language:** It is the **only English-speaking country in South America**.

People and Culture:

- **Population:** The majority of Guyana’s people are of **colonial origin**:
 - **Descendants of African slaves** and **Indian indentured workers** brought to work in the **coastal sugarcane plantations**.
 - A smaller population of **indigenous peoples** resides in the **forested interior**.
- **Capital:** **Georgetown** serves as the capital and main port of Guyana.

Governance and Economy:

- **Government:** **Unitary multiparty republic** with a **National Assembly** as its legislative body.
- **Currency:** **Guyanese Dollar (G\$)**
- **Key Resources:**
 - **Fertile agricultural lands**
 - **Rich mineral reserves**, including **bauxite** and **gold**
 - **Extensive tropical forests** covering 80% of the country
 - Recently discovered **offshore oil and gas (O&G) reserves**

Natural Features:

- **Rivers:**
 - **Essequibo River:** The largest river in the country.
 - Other key waterways: **Berbice, Courantyne, and Demerara**.
- **Forests:** Guyana’s **tropical forests** are a critical natural asset, supporting biodiversity and the economy.

Conclusion:

Guyana is a nation where **colonial history meets a promising future**. With its rich **natural resources**, **strategic location**, and **cultural diversity**, the country is poised for significant growth while remaining a vital partner in global and regional affairs.



Central Value Added Tax (CENVAT) Credit: Simplifying Taxation for Businesses

Context: The **Supreme Court** has recently provided a significant boost to **telecom companies** by allowing them to claim **CENVAT credit** for expenses incurred on the installation of **mobile towers** and **peripherals**, including **prefabricated buildings (PFBs)**, for which they pay **excise duties**.



Understanding CENVAT Credit:

- **Definition:** **CENVAT (Central Value Added Tax)** allows manufacturers to **offset the excise duty or additional duty paid** on input services against the excise duty payable on their final product or output services.
- **Purpose:** It simplifies the tax process by eliminating **double taxation** and reduces the tax burden on manufacturers and consumers.
- **Mechanism:**
 - Manufacturers can use the credit for **taxes paid on raw materials** during production.
 - This ensures that tax is levied only on the **value added** at each stage of production, not repeatedly on the same components.

Key Features of CENVAT:

1. **Introduced as a Replacement for MODVAT:**
 - CENVAT was introduced to modify and enhance the functioning of the earlier **Modified Value Added Tax (MODVAT)**.
2. **Stages of Taxation:**
 - Raw materials go through various production stages where **duties are levied on value additions**.
 - CENVAT ensures credits are available to reduce the cumulative tax impact.
3. **Regulatory Framework:**
 - The government introduced the **CENVAT Credit Rules** in **2004**, providing guidelines to implement CENVAT and extend **tax credits** to Indian manufacturers.
4. **Eligibility for CENVAT Credit:**
 - **Excise Duty on Final Products:** For manufacturers producing final goods.
 - **Service Tax on Output Services:** For service providers handling both taxable and exempted services.
 - **Inputs and Capital Goods:** Applicable if these goods are partially processed.

Benefits of CENVAT Credit:

1. **Reduced Tax Liability:**
 - Businesses can **offset taxes paid on inputs**, significantly lowering their overall tax burden.
2. **Encourages Investment:**
 - Tax credit on **capital goods** incentivizes businesses to invest in modernization, technological upgrades, and improved **productivity and quality**.
3. **Promotes Compliance:**
 - Companies can claim credits only if **input suppliers pay taxes**, encouraging a robust tax compliance culture.

Impact on Businesses:

- **Cost Efficiency:** CENVAT helps reduce production costs, benefiting both manufacturers and consumers.
- **Encourages Growth:** With reduced tax burdens and incentives for investments in capital goods, businesses are better positioned to **expand** and **modernize**.
- **Simplified Taxation:** The elimination of double taxation ensures a **streamlined tax process**, reducing administrative hassles for businesses.

Conclusion:

CENVAT Credit plays a pivotal role in fostering a **business-friendly environment** by simplifying the tax regime and promoting **industrial growth**. It not only reduces the financial strain on businesses but also incentivizes **technological advancements** and **tax compliance**, making it a vital component of India's taxation system.



Easing Bail Norms for Undertrial Prisoners in India

Context: The **Union Home Minister** has recently stressed the need to release **undertrial prisoners** who have served over **one-third of the maximum sentence** for their alleged crimes before **Constitution Day** (November 26). This initiative aligns with the newly introduced provisions under the **Bharatiya Nagarik Suraksha Sanhita, 2023 (BNSS)**, which aims to **revise bail norms** and address issues of prolonged detention.



Key Features of Section 479 of BNSS:

About Section 479:

This provision revises bail norms to ensure timely release for **undertrial prisoners**, especially for **first-time offenders**.

General Bail Rules:

- **Non-Capital Offences:** Undertrials accused of offences not punishable by **death** or **life imprisonment** are eligible for **bail** if they have completed **half of the maximum sentence** for the crime.
- Builds on Section 436A of the CrPC, which also addressed prolonged detention.

Special Provisions for First-Time Offenders

- **Eligibility:** First-time offenders (individuals with no prior convictions) must be released on bond if they have served **one-third of the maximum sentence** for the alleged offence.

Exceptions

- These provisions do not apply to cases involving **multiple offences** or those under **active investigation** for other crimes.

Supreme Court's Role in Implementing Section 479:

Retrospective Application

- In **August 2024**, the Supreme Court declared that **Section 479** applies **retrospectively**, covering cases pending before the law took effect on **July 1, 2024**.

Implementation Measures

1. **Identification of Eligible Prisoners**
 - Jail authorities must identify eligible prisoners and report them to courts for their release.
2. **State and UT Compliance**
 - **State Governments and Union Territories** were directed to submit affidavits detailing undertrial eligibility and release status within two months.

Recent Developments:

- As of **October 2024**, only **19 of 36 states and UTs** have complied with the Supreme Court's orders.
- On **November 19**, the Court reiterated the importance of prioritizing **women undertrials** for bail eligibility.

India's Undertrial Population:

- **Overcrowded Prisons:** India has one of the largest populations of undertrial prisoners, many of whom remain detained for years without conviction.
- **Prolonged Detention:** Many undertrials have already served significant portions of their potential sentences due to slow judicial processes.

Conclusion:

The provisions under **Section 479 of the BNSS** mark a crucial step in addressing the issue of **prolonged detention** among undertrials, emphasizing **fairness** and **speedy justice**. However, the success of these reforms depends on effective implementation by **state authorities** and strict compliance with **Supreme Court directives**.

This initiative is not just a matter of **judicial efficiency** but a critical step toward safeguarding **human rights** and upholding the principles of **justice for all**.

Nafithromycin: India's First Indigenous Antibiotic

Context: India recently launched **Nafithromycin**, its **first indigenous antibiotic**, developed to combat the growing challenge of **drug-resistant bacteria**.

**About Nafithromycin:****1. Development**

- Created with support from the **Biotechnology Industry Research Assistance Council (BIRAC)**, under the **Department of Biotechnology**.

2. Market Name

- Launched as "**Miqnaf**" by **Wockhardt Pharmaceuticals**.

3. Target Condition

- Specifically designed to treat **Community-Acquired Bacterial Pneumonia (CABP)** caused by **drug-resistant bacteria**.

Features of Nafithromycin:**1. Novel Antibiotic Class**

- The **first new antibiotic in its class** to be developed globally in **over 30 years**.

2. Enhanced Efficacy

- 10 times more effective** than **azithromycin**.
- Comparable results achieved with just a **three-day treatment regimen**.

3. Wide Pathogen Coverage

- Effective against **typical and atypical bacteria**.
- Overcomes existing **drug resistance mechanisms**.

4. Safety and Convenience

- Minimal **gastrointestinal side effects**.
- No significant **drug interactions**.
- Unaffected by food, enhancing patient convenience and adherence.

Significance of Nafithromycin:**1. Addressing Antimicrobial Resistance (AMR)**

- Provides a solution to combat **multi-drug-resistant pathogens**.
- Tackles a critical global health challenge by reducing prolonged illnesses and high healthcare costs.

2. Global Health Impact

- Pneumonia causes over **two million deaths annually**, with **India** accounting for **23%** of the global burden.
- Nafithromycin** offers hope for reducing mortality and alleviating strain on healthcare systems.

Conclusion:

Nafithromycin marks a **milestone for India's pharmaceutical innovation**, addressing both national and global health crises while demonstrating the country's commitment to tackling **antimicrobial resistance** and improving healthcare outcomes.



How PM Vidyalaxmi Stands Out Among Other Schemes

Context: The Union Cabinet recently approved the **PM Vidyalaxmi Scheme**, a **Central Sector Scheme** designed to provide **financial support** to meritorious students pursuing **higher education** in India.



About PM Vidyalaxmi Scheme:

1. Objective

- Aimed at offering **collateral-free** and **guarantor-free loans** to meritorious students enrolling in higher education institutions ranked under the **National Institutional Ranking Framework (NIRF)**.

2. Coverage

- Focuses exclusively on **NIRF-ranked institutions** (around 860 institutions).
- Targets students from families with an annual income of up to 8 lakh, who are not beneficiaries of other government scholarships.
- **Priority given to students** from government institutions pursuing **technical or professional courses**.

3. Loan Features

- Covers the **entire tuition fee** and other related expenses.
- Offers **loans up to 10 lakh** with a **3% interest subvention** during the moratorium period for **1 lakh students annually**.

How PM Vidyalaxmi Differs from Other Schemes:

1. Broader Coverage

- Unlike earlier schemes focused on **low-income groups**, PM Vidyalaxmi extends financial support to **middle-income families**, irrespective of caste or background.

2. Eligibility Criteria

- **Previous schemes** included institutions accredited by **NAAC** or **NBA**, covering around 20,000 institutions.
- PM Vidyalaxmi restricts eligibility to the **top 100 NIRF-ranked institutions**, ensuring funds are directed toward premier institutions.

3. Streamlined Application Process

- A centralized **Vidyalaxmi portal** ensures a **simplified and transparent loan application process**, reducing bureaucratic hurdles and delays.

Why PM Vidyalaxmi Matters:

The scheme represents a **paradigm shift** by prioritizing merit over broader accessibility, focusing on premier institutions, and supporting **middle-income families**. Its streamlined approach ensures **efficient financial support**, aligning with the government's vision of making quality education more accessible to deserving students.

Gautam Adani Indicted in US Bribery and Fraud Case

Context: In a significant development, **US prosecutors** have indicted **Gautam Adani**, the chairman of the **Adani Group**, along with his nephew **Sagar Adani** and six others in a **\$250 million bribery and fraud** case. The charges include **bribing Indian officials**, misleading investors, and obstructing justice in relation to **solar energy contracts**.

Key Allegations Against Gautam Adani:

- Defendants Involved**
 - Gautam Adani** – Chairman of the Adani Group
 - Sagar Adani** – Executive Director of **Adani Green Energy Ltd**
 - Vneet Jaain** – CEO of Adani Green Energy Ltd
 - Other Defendants** – Former executives of **Azure Power** and employees of a **Canadian institutional investor**.
- Bribery for Solar Contracts**
 - The group allegedly **bribed Indian officials** to secure solar power contracts from the **Solar Energy Corporation of India (SECI)**, potentially generating \$2 billion in profits over 20 years.
 - Direct meetings** between Gautam Adani and government officials were reported to advance the bribery scheme.
- Fraudulent Capital Raising**
 - The defendants are accused of **misleading US investors** and raising funds under false pretenses, all while concealing the **bribery scheme**.
 - These actions were purportedly designed to raise billions from international investors.
- Obstruction of Justice**
 - The accused allegedly **obstructed investigations** into the bribery and fraud scheme, compounding the legal implications.

**Legal Framework and the Adani Group's Response:**

- US Indictment Process**
 - An **indictment** formally charges individuals with crimes and allows them to prepare their defense. The case falls under **US jurisdiction** due to the involvement of **US investors** and markets.
- Adani Group's Response**
 - The Adani Group has strongly **denied all allegations**, asserting that the charges are merely **allegations** and do not prove guilt.
 - A spokesperson emphasized the group's commitment to **good governance** and **compliance** with legal norms, while they are prepared to seek **legal recourse**.

Immediate Fallout of the Indictment:

- Financial Consequences**
 - In the wake of the indictment, the Adani Group **canceled a \$600 million bond offering** intended for foreign currency loan repayment.
 - Shares of Adani companies** plummeted, with **Adani Green Energy** seeing an 18.76% drop and **Adani Energy Solutions** falling by 20%.
- Political Repercussions**
 - In India, the **Congress Party** has renewed its call for a **Joint Parliamentary Committee (JPC)** investigation into alleged **Adani-related scandals**.
 - Congress leader **Jairam Ramesh** demanded the appointment of a credible **SEBI chief** to oversee investigations.
- International Impact**
 - The **Kenyan President** canceled a \$736 million **PPP deal** with the Adani Group to construct power transmission lines, citing the **US indictment** as a key factor.

Conclusion: A Global Scrutiny of Corporate Malpractices:

The **indictment of Gautam Adani** and his associates sends a strong signal about global efforts to hold corporations accountable for **corruption, fraud, and regulatory violations**. With serious **financial and political fallout**, the case underscores the increasing scrutiny of corporate practices in international markets, which may have long-term implications for the Adani Group and its global ventures.