

# DAILY CURRENT AFFAIRS (DCA)

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## DECCAN VOLCANISM AND ITS IMPACT ON TROPICAL FLORA

#### In Context

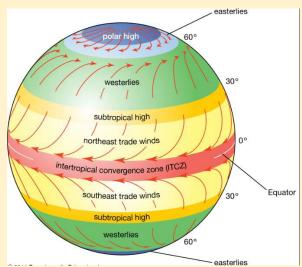
A recent study highlights that the **Deccan Volcanism**, despite its catastrophic effects on terrestrial fauna (such as the extinction of dinosaurs), caused only regional and **short-term impacts on tropical flora**.

#### **Key Findings**

- The volcanic activity primarily led to a latitudinal shift of the Indian Plate within the Inter-Tropical Convergence Zone (ITCZ).
- Dormant phases of the Deccan Volcanism witnessed a humid climate, fostering rapid development and diversification in tropical rainforest ecosystems instead of leading to their extinction.
- The findings offer hope that tropical rainforests, if left undisturbed, can recover quickly under favorable climatic conditions.

#### **Inter-Tropical Convergence Zone (ITCZ)**

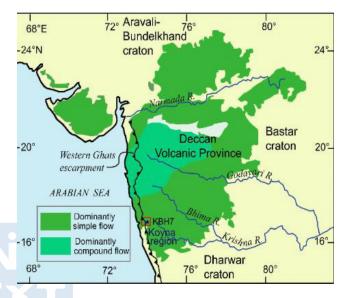
- ITCZ is a belt of low pressure around the Earth, typically located near the equator, where the trade winds from the Northern and Southern Hemispheres converge.
- Its position shifts slightly with the seasons, based on the position of the sun.



- **Weather Characteristics:** The ITCZ is known for heavy rainfall, thunderstorms, and high humidity due to the warm air rising, leading to condensation and cloud formation.
- Significance: It plays a key role in global weather patterns, especially in tropical regions, influencing rainfall, monsoons, and seasonal weather changes.

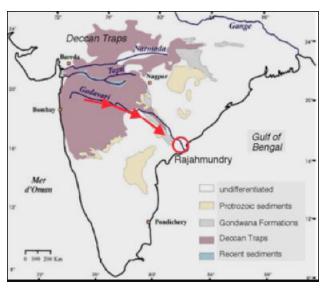
#### What is Deccan Volcanism?

- Deccan Volcanism refers to the extensive volcanic activity that occurred in the Deccan Plateau of India, primarily during the Cretaceous-Paleogene transition, around 66 million years ago.
- This volcanic event is believed to have played a significant role in the mass extinction event that wiped out the dinosaurs, though other factors, such as an asteroid impact, may have contributed as well.



#### **Key Features of Deccan Volcanism:**

- Formation of the Deccan Traps: The Deccan Traps are a vast, layered region of flood basalts (solidified lava flows) covering large areas of central and western India. These volcanic eruptions led to the formation of the Deccan Plateau.
  - The volcanic rock formations are characterized by **horizontal layers of basalt** and are among the largest volcanic provinces on Earth.
- Cause of Deccan Volcanism: It is believed that the Deccan volcanism was triggered by a mantle plume (a column of hot magma rising from deep within the Earth's mantle), which caused widespread eruptions over a prolonged period.
- Impact on Climate: The massive eruptions released huge amounts of greenhouse gases (such as carbon dioxide) and sulfur aerosols, which likely led to global climate changes, including global warming and acid rain.
  - These changes are believed to have contributed to the extinction of many species, including the non-avian dinosaurs.
- Extent of the Deccan Traps: The Deccan Traps cover an area of about 500,000 square kilometers in India, with thicknesses of lava flows reaching up to 2,000 meters in places.



 The longest lava flows on Earth are found in the Deccan Traps; they are estimated to flow 1500Km across India and out into the Gulf of Bengal.

**Source: PIB** 

## CENTRE TO STATES: CREATE MECHANISM FOR COMPLIANCE WITH FRA

#### Context

 The Ministry of Tribal Affairs has directed the states to create an institutional mechanism to ensure compliance with the Forest Protection Act and set up a mechanism to address grievances of the forest-dwelling communities.

#### **About**

- Aim: Underlining that forest-dwelling communities were protected from unlawful eviction under the Forest Protection Act.
- Reason: The Ministry had received complaints from dozens of villages situated inside tiger reserves in at least three states — Madhya Pradesh, Maharashtra and West Bengal.
  - They alleged that residents were being pressured to vacate their traditional lands without due recognition of their rights under the FRA and Wildlife Protection Act.
- The Ministry has asked the following details from the state tribal development and forest departments:
  - a report detailing the name and number of villages situated in tiger reserves;
  - the tribes and forest-dwelling communities in such villages;
  - and all the forest rights claims received, vested, and rejected.

 It has also sought to know the process of seeking consent and the likely compensation.

#### **Forest Cover in India**

- As per the India State of Forest Report 2023 (ISFR 2023), the total Forest and Tree cover is 8,27,357sq km, which is 25.17 percent of the geographical area of the country.
- Area wise top three states having largest forest cover are Madhya Pradesh (77,073 sq km) followed by Arunachal Pradesh (65,882 sq km) and Chhattisgarh (55,812 sq km).
- Top four states showing maximum increase in forest and tree cover: Chhattisgarh, Uttar Pradesh, Odisha and Rajasthan.

#### **Forest Protection Act in India**

 The Forest Protection Act in India refers to a series of legislative measures aimed at the conservation, preservation, and protection of forests.

#### The Indian Forest Act, 1927

- It was framed with the objective of managing timber and other forest resources.
- It provides for state governments to notify any forest land they own as reserved or protected forests.
- All land rights in such land are subject to the provisions of the Act.

#### The Forest Conservation Act, 1980

- The Forest Conservation Act (FCA) was enacted to address deforestation and to regulate the diversion of forest land for non-forest purposes (like industrial, mining, or infrastructural projects).
- The Act requires prior approval from the central government for the use of forest land for nonforest purposes.
- It aims to protect forests from depletion and helps in ensuring sustainable forest management practices.

#### **Forest Rights Act**

 The Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 (Forest Rights Act or FRA) was introduced to recognize the rights of forest-dwelling communities, including Scheduled Tribes, over forest resources that they have been traditionally using.

#### **Major Highlights:**

- Recognition of Rights:
  - It includes individual and community rights such as Self-cultivation, Habitation, Grazing, Fishing and access to Water bodies in forests.

- It also includes Habitat Rights for PVTGs, Traditional Seasonal Resource access of Nomadic and Pastoral communities, access to biodiversity, community right to intellectual property and traditional knowledge.
- Allocation of Forest Land: It also provides rights
  to allocation of forest land for developmental
  purposes to fulfil basic infrastructural needs of
  the community.
  - In conjunction with the Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Settlement Act, 2013 FRA protects the tribal population from eviction without rehabilitation and settlement.
- Role of Gram Sabha: The Act further enjoins upon the Gram Sabha and rights holders the responsibility of conservation and protection of forests.
  - The Gram Sabha is also a highly empowered body under the Act, enabling the tribal population to have a decisive say in the determination of local policies and schemes impacting them.

#### **Challenges in Implementation of the FRA**

- Bureaucratic Resistance and Delays: Slow implementation and bureaucratic hurdles at the local and state levels, including lack of resources in forest departments and government bodies.
- Opposition from Forest Authorities: Forest officials often resist the Act, fearing loss of control over forest resources and conflicting interests between conservation and community rights.
- Lack of Awareness: Many forest-dwelling communities are unaware of their rights under the FRA, hindering the filing and recognition of claims.
- Land Title Issues: Inaccurate land records and disputes over land ownership complicate the process of granting rights.
- **Displacement and Evictions:** Forced evictions from protected areas, often prioritizing conservation over community rights, pose a significant challenge.
- Weak Forest Rights Committees (FRCs): FRCs, which are crucial for recognizing rights at the village level, often function ineffectively due to lack of training and political interference.
- **Political Will:** Inconsistent political commitment to the FRA across different states leads to uneven implementation.

#### **Way Ahead**

- Enhance Awareness: Conduct awareness campaigns to educate communities about their rights under the FRA and train Forest Rights Committees (FRCs) for effective claims management.
- Streamline Processes: Simplify and expedite claim verification, title issuance, and land demarcation to reduce delays.
- Foster Cooperation with Forest Authorities: Train forest officials on the Act and promote a balanced approach between conservation and community rights.
- Update Land Records: Improve accuracy in land records and use technology for land mapping and dispute resolution.
- **Prevent Displacement:** Avoid forced evictions, especially in protected areas, and prioritize rights protection over eviction.
- Monitor and Evaluate: Establish transparent monitoring mechanisms and conduct regular evaluations to track progress and resolve issues.

Source: IE

#### ODISHA JOINS AYUSHMAN BHARAT PRADHAN MANTRI JAN AROGYA YOJANA

#### Context

- Recently, Odisha has officially joined the Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY).
  - The scheme will be implemented in convergence with Odisha's existing Gopabandhu Jan Arogya Yojana (GJAY).

#### Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY)

- About: It is a flagship health insurance scheme (Centrally Sponsored Scheme) that was launched in 2018. It aims to provide accessible and affordable healthcare to the economically disadvantaged sections of society.
  - National Health Authority (NHA) is the implementing agency of the scheme under the MoH&FW.
- Objectives: To reduce the financial burden on poor and vulnerable groups arising out of catastrophic hospital episodes.
  - To ensure access to quality health services.
  - To provide a health cover of up to ₹5 lakh per family per year for secondary and tertiary care hospitalization.

#### Key Features:

- Coverage: Over 10.74 crore poor and vulnerable families (approximately 50 crore beneficiaries) identified based on the Socio-Economic Caste Census (SECC) data.
- Cashless and Paperless: Beneficiaries can avail of cashless and paperless access to health services at the point of service in any empaneled hospital, both public and private, across India.
- Comprehensive Benefits: Covers pre- and post-hospitalization expenses, diagnostics, medicines, and nearly 1,400 medical procedures, including major surgeries.
- Funding Pattern: 60:40 cost-sharing between the Union Government and States.
  - 90:10 for North Eastern States and Himalayan States (Himachal Pradesh, Uttarakhand, and Jammu & Kashmir (UT)).
  - 100% central funding for Union Territories (UTs) without a legislature.
- Recent Developments: In 2024, the Union Cabinet approved the expansion of Ayushman Bharat Pradhan Mantri Jan Arogya Yojana (AB PM-JAY) to cover all senior citizens aged 70 and above, irrespective of their income status.
- Benefits and Impact: Since its inception, AB PM-JAY has achieved:
  - 8.19 crore hospital admissions, with 1.13 lakh crore spent on healthcare.
  - Coverage for 45% of India's population.
  - Reduced out-of-pocket healthcare expenses for the poor.
  - Increased access to both public and private healthcare facilities.

#### Why States are Reluctant to Join PM-JAY?

- Financial Concerns: States are worried about the financial burden of implementing the scheme. While the central government provides a significant portion of the funding, states still need to contribute, which can strain their budgets.
- Existing State Schemes: Some states/UT already have their own health insurance schemes that they believe are more tailored to their specific needs. For example: Delhi Arogya Kosh (DAK) scheme offering similar benefits.
- Administrative Challenges: Managing a largescale scheme like PM-JAY requires robust administrative capacity.
- Political Differences: Political dynamics between state and central governments often influence decisions.

#### Health in India

- Health is a State Subject in Schedule VII in Indian Constitution, making healthcare delivery primarily the states' responsibility.
- It covers primary and secondary healthcare, public health initiatives, health infrastructure etc.
- National Health Mission (NHM) is a flagship initiative that provides financial and technical assistance to states to strengthen their healthcare systems. Key components of NHM include:
  - **NRHM:** Focuses on rural healthcare.
  - **NUHM:** Addresses urban health challenges.
  - RMNCH+A: Provides healthcare across different life stages.

#### **Other Important Initiatives**

- Ayushman Bharat Digital Mission (ABDM):
   It aims to create a national digital health ecosystem that supports universal health coverage in an efficient, accessible, inclusive, affordable, timely, and safe manner.
  - It includes initiatives like the Ayushman Bharat Health Account (ABHA) number, which allows individuals to access and share their health records digitally.
  - Other components include the CoWIN app for COVID-19 vaccination, Aarogya Setu for contact tracing, and e-Sanjeevani for telemedicine services.
- National Health Policy, 2017: It aims to achieve universal health coverage and deliver quality health care services to all at affordable costs.
  - It emphasizes preventive and promotive health care, strengthening the primary health care system, and ensuring access to essential medicines and technologies.

Source: TH

## COMPTROLLER AND AUDITOR GENERAL OF INDIA (CAG)

#### **Context**

 The Comptroller and Auditor General of India (CAG) gained political attention after its report on the renovation costs of the office and residence of former Delhi Chief Minister.  The CAG plays a critical role in ensuring financial accountability and transparency in India's governance system.

#### **Comptroller and Auditor General of India (CAG)**

- The CAG is the supreme audit authority of India, responsible for auditing government accounts and ensuring accountability in public finance management.
- Articles 148 to 151 of the Indian Constitution provide the framework for the appointment, duties, and reporting structure of the CAG.
- The Comptroller and Auditor General's (Duties, Powers and Conditions of Service) Act, 1971, determines the CAG's service conditions and prescribes the duties and powers of their office.

#### **Historical background**

- The role of CAG evolved in British India and the Government of India Act 1858 paved the way for appointment of the first Auditor General, Sir Edward Drummond in 1860.
- Under the Montford Reforms of 1919, the Auditor General became independent of the Government.
- The Government of India Act, 1935 strengthened the position of the Auditor General and the Government of India Order 1936 provided for the conditions of services of the Auditor General.

#### **Duties and responsibilities of CAG**

- Audits expenditure from the Consolidated Fund of India, states, and union territories with Legislative Assemblies.
- Audits expenditure from the Contingency Fund and Public Account of India and those of the states.
- Audits transactions related to debt, sinking funds, deposits, advances, suspense accounts, and remittance business with Presidential approval.
- Audits accounts of any authority if requested by the President or Governor.

## Audits Reports Submitted by CAG to the President of India

- Comptroller and Auditor General (CAG) of India submits three audit reports to the President of India (Article 151).
  - Audit report on appropriation accounts:
     This report shows how the legislature-granted money was allocated to different heads of expenditure and grants. It also verifies if the money was spent for the intended purpose.
  - Audit report on finance accounts: This report shows the annual receipts and expenditures of the country.

- Audit report on public undertakings: This report covers the finances and expenditures of various Public Sector Undertakings (PSUs).
- After receiving the reports, the President lays them before both houses of Parliament. The Public Accounts Committee (PAC) then examines the reports and submits its findings to Parliament.

#### **Impact of CAG Reports**

- CAG reports often highlight financial losses and procedural lapses, influencing policy changes and accountability measures.
- Example: 2010 report on the allocation of 2G spectrum licenses, which led to significant policy reforms.

#### **Concluding remarks**

 CAG's audits and recommendations have led to significant policy corrections in the past, emphasizing the importance of an empowered and independent audit authority in a democracy.

Source: IE

## RUPEE HITS AN ALL-TIME LOW OF 86 AGAINST THE US DOLLAR

#### Context

 The Indian rupee has recently crossed the 86 mark against the US dollar, marking an all-time low.

#### About

- Currency depreciation refers to the decline in the value of one country's currency relative to another currency.
- The Indian rupee has seen a periodic depreciation against major currencies, particularly the US dollar.

#### Reasons for depreciation of rupee

- Rising Crude Oil Prices: The surge in global crude oil prices has led to increased import bills for India, thereby exerting downward pressure on the rupee.
- Outflows by Foreign Portfolio Investors (FPIs):
   FPIs have shifted their investments from Indian markets due to global economic uncertainties, reducing the supply of foreign currency in India, contributing to the rupee's fall.
- Increased Demand for US Dollars: There has been a heightened demand for the US dollar from foreign banks, exacerbating the rupee's depreciation.



 Weak Domestic Markets: The overall weakness in domestic equity and bond markets has further contributed to the rupee's decline, making it less attractive to foreign investors.

#### **Impact of Rupee depreciation**

- Exports and Imports: While a weaker rupee can boost exports by making Indian goods cheaper for foreign buyers, it also raises the cost of imports, particularly essential commodities like oil and machinery.
- Foreign Debt Servicing: For companies and the government with significant foreign currency debt, a depreciating rupee increases the cost of servicing the debt, straining their financial positions.
- Inflation: The increase in import costs lead to higher consumer prices, impacting purchasing power and potentially leading to overall inflation in the economy.
- Investor Sentiment: A declining currency affects investor confidence, resulting in reduced foreign direct investment (FDI) and further capital outflows.

#### How does the RBI maintain the rupee value?

- Intervention in Forex Markets: The RBI intervenes in the foreign exchange market by buying or selling dollars to stabilize the rupee's value. This helps mitigate excessive volatility.
- Monetary Policy adjustments: By adjusting interest rates, the RBI influences capital flows. Higher interest rates can attract foreign investment, supporting the rupee's value.
- Forex reserve management: The RBI maintains a buffer of foreign exchange reserves that can be utilized during times of currency volatility.

#### **Way Ahead**

- Long-term investment: A stable rupee requires steady capital inflows. India should focus on attracting long-term foreign direct investment (FDI) rather than volatile foreign portfolio investments (FPI).
- Maximizing Remittances: India is one of the largest recipients of remittances globally. Policies that make it easier for Non-Resident Indians (NRIs) to remit money home, can increase foreign currency inflows, stabilizing the rupee.
- **Export Competitiveness:** The focus should be on enhancing the competitiveness of Indian exports by investing in sectors like technology, pharmaceuticals, textiles, and manufacturing.

#### Sources: IE

#### INDIA'S SUNRISE SECTOR

#### In News

 India's G20 Sherpa, Amitabh Kant emphasized that India needs to excel in "sunrise sectors" to achieve the goal of becoming a developed nation and a USD 32 trillion economy by 2047.

#### **About Sunrise sectors**

- It refers to a rapidly growing sector in its early stages with high potential for expansion.
- These industries experience significant growth, a rise in startups, and attract substantial venture capital funding, making them appealing to investors for long-term growth prospects.

#### **Sunrise sectors in India: Potential**

- **Electronics and Semiconductors:** India's electronics industry is driven by initiatives like the PLI Scheme and SEMICON India Program.
  - The semiconductor market is expected to triple by 2026, with a production value of \$300 billion by FY26.
  - Government schemes like the Modified Scheme for Semiconductor Fabs provide significant financial incentives.
  - India is emerging as a global hub for electronics and semiconductor manufacturing.
  - **Electric Vehicles (EV)**: India is promoting electric mobility with initiatives like FAME II and 100% FDI allowance.
    - The EV sector has over 12,000 operational charging stations and is expected to see massive growth.
    - The PLI Scheme for Advanced Chemistry Cells supports local battery manufacturing, driving down costs.
    - India's EV sector offers opportunities in manufacturing and infrastructure development while contributing to sustainability.
- Renewable Energy: India aims to achieve 500 GW of non-fossil fuel-based energy by 2030.
  - Initiatives like the National Green Hydrogen Mission and Offshore Wind Energy targets attract investment in green technologies.
  - The sector benefits from favorable regulatory frameworks, R&D promotion, and international collaboration.
  - India offers substantial opportunities for investors in the clean energy transition.
  - India's solar panel manufacturing industry is 5-7 years behind global standards.

- Agro and Food Processing (A&FP): Programs like Pradhan Mantri Kisan Sampada Yojana and liberalized FDI norms create investment opportunities in agriculture and food processing.
  - Schemes like the PLI Scheme for Food Processing Industry incentivize investment in food infrastructure.
  - India's agricultural sector offers potential for value addition, exports, and food security.
- **Healthcare**: India's healthcare and pharmaceutical sectors are poised for growth, with the medtech industry expected to reach \$50 billion by 2025.
  - Initiatives like Ayushman Bharat focus on improving healthcare accessibility and affordability.
- Pharmaceuticals: India's pharmaceutical industry, known for vaccine production and generic medicines, offers robust investment opportunities.
  - The sector benefits from favorable conditions like 100% FDI allowance and supportive infrastructure.
- Artificial intelligence: Al and ML are transforming industries globally, with India wellpositioned to capitalize on these technologies.
  - They are being applied across industries such as healthcare, finance, education, and manufacturing, fostering innovation and efficiency.

#### **Challenges Facing Sunrise Sectors in India:**

- **Inconsistent policy implementation** and frequent changes create uncertainty.
  - Delays in approvals and fragmented regulations hinder investment and growth.
- **Insufficient infrastructure**, especially EV charging stations and renewable energy grid integration.
- Lack of substantial investments in research and development (R&D).
- **Shortage of specialized talent** in fields like AI, renewable energy, and EVs.

#### **Conclusion and Way Forward**

- India's sunrise sectors offer compelling investment opportunities due to strong human resources and supportive government policies, including 100% FDI under automatic routes.
- These sectors provide robust growth potential, economic prosperity, and avenues for sustainable development, making them attractive destinations for investment.

 Therefore overcoming regulatory, infrastructure, technological, and financial challenges is crucial for unlocking the potential of India's sunrise sectors.

Source:ET

## REBALANCING INDIA'S DEBT MARKET

#### In News

 Recently, the NITI Aayog Vice Chairman Suman Bery highlights the critical need to rebalance the government debt market and corporate debt market in India.

#### What is the Debt Market?

- The debt market, also known as the bond market or fixed-income market, is a financial market where debt instruments are bought and sold.
- Debt markets are a crucial part of the financial system as they provide a mechanism for governments, corporations, and other entities to secure funding for their operations or projects.
- Types of Debt Instruments: Government Securities (G-Secs), Corporate Bonds, Certificates of Deposit (CDs), debentures etc.

#### Status of the Corporate Debt Market in India

- India's corporate debt market has grown in recent years but remains shallow compared to developed economies. While the government raised ₹11.63 lakh crore in FY25 through its robust debt market, the corporate sector raised ₹7.3 lakh crore in the first nine months of the fiscal year, showing a significant gap.
- This disparity underscores the dominance of government securities (G-Secs), supported by mandatory investments from banks under the Statutory Liquidity Ratio (SLR) framework.

## Reasons for an Underdeveloped Corporate Debt Market

- Dominance of Bank Lending: Indian corporates primarily rely on bank credit, as the banking sector has traditionally been the primary source of funding.
- **Regulatory Hurdles:** Complex regulatory requirements and limited credit rating penetration deter smaller firms from issuing bonds.
- Investor Behavior: Indian investors, both retail and institutional, exhibit a preference for low-risk government securities and fixed deposits.
- Limited Market Infrastructure: Inadequate market-making mechanisms and lack of a vibrant secondary market discourage active participation.

 Low Creditworthiness of Issuers: Many corporates, particularly smaller ones, struggle to achieve credit ratings that inspire investor confidence.

#### **Initiatives to Deepen the Corporate Debt Market**

- Mandatory Corporate Bond Listing: SEBI has mandated large corporates to raise at least 25% of their incremental borrowings through corporate bonds.
- Credit Enhancement: Mechanisms such as partial credit guarantees by institutions like the India Infrastructure Finance Company Limited (IIFCL) aim to enhance creditworthiness.
- Tax Incentives: Efforts to create tax-efficient instruments like Infrastructure Investment Trusts (InvITs) and Real Estate Investment Trusts (REITs).
- **Retail Participation:** Initiatives like Bharat Bond ETFs have been launched to attract retail investors into corporate bonds.
- Reforms in Credit Ratings: Strengthening the credit rating framework to ensure better transparency and reliability.

#### **Way Ahead**

- Enhancing Liquidity: Developing active secondary markets with participation from institutional investors such as insurance companies and pension funds.
- **Increasing Retail Participation:** Promoting awareness about the benefits of corporate bonds.
  - Offering innovative products with low entry barriers and retail-friendly features.
- Improving Credit Accessibility: Expanding access to credit ratings and providing partial guarantees to encourage small and medium enterprises (SMEs) to enter the bond market.
- Leveraging Technology: Utilizing digital platforms to facilitate easier issuance and trading of corporate bonds.

Source: BS

### NEWS IN SHORT

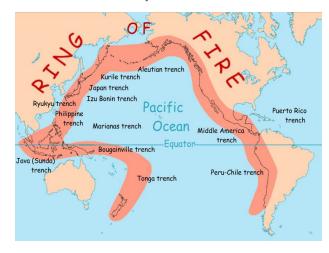
#### RING OF FIRE

#### In News

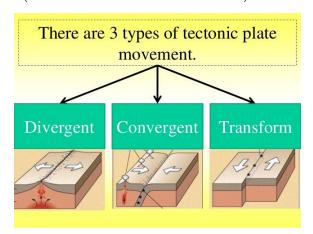
• Japan (situated on the Ring of Fire belt) issues tsunami advisory after a 6.9 magnitude earthquake hits the Kyushu region of southern Japan.

#### **About**

 Ring of Fire: Also known as the Circum-Pacific Belt, is a horseshoe-shaped region around the Pacific Ocean. It is famous for its intense volcanic and seismic activity.



- Plate Tectonics: The Ring of Fire traces the boundaries of numerous tectonic plates, including the Pacific, North American, Eurasian, Philippine, Australian, and Antarctic plates.
- Convergent Boundaries: Plates collide, causing subduction (e.g., Pacific Plate subducting beneath the Philippine Plate).
- **Transform Boundaries:** Plates slide past each other horizontally (e.g., boundary between the Pacific and North American Plates).
- Divergent Boundaries: Regions where two tectonic plates move away from each other (Eurasian and North American Plates).



Source: TH

#### MAKARAVILAKKU FESTIVAL

#### In News

 The Travancore Devaswom Board is expecting around 1.5 lakh pilgrims at the Sannidhanam for the Makaravilakku festival.

#### **About Makaravilakku festival**

- It is an annual festival held at the Sabarimala temple in Kerala, India, dedicated to Lord Ayyappa.
- It coincides with **Makara Sankranti**, celebrated on January 14 this year.
- It marks the end of the two-month pilgrimage season (mid-November to Makara Sankranti).
- **Religious Significance:** The festival symbolizes Lord Ayyappa's manifestation and divine light (Makara Jyothi).
  - It represents faith, devotion, and the triumph of Lord Ayyappa over evil forces.

Source:TH

#### **SADA ON KONKAN REGION**

#### Context

 The Konkan region, nestled between the Arabian Sea and the Western Ghats, is renowned for its unique geographical features Sada.

#### **About**

- Sada are flat-topped lateritic plateaus formed by centuries of erosion.
  - Mostly barren, they flourish with endemic flora during monsoons.
  - Traditional rice and millet (Nanchani) are cultivated without chemicals.
- Natural groundwater recharge system: The porous lateritic soil retains rainwater, ensuring year-round freshwater availability.
- Ecological Significance: These habitats support vulnerable species like the Indian flapshell turtle and wildlife such as leopards, jackals, and migratory birds.
- **Threats:** Development projects, laterite mining, and land-use changes for orchards and residential areas threaten the Sada.
  - Its classification as 'wasteland' in the Wasteland Atlas further endangers this fragile ecosystem.

Source: TH

#### **REITS, INVITS, MUNICIPAL BONDS**

#### Context

 The Chairperson of the Securities and Exchange Board of India (SEBI), stated that real estate investment trusts (Reits), infrastructure investment trusts (InvITs) and municipal bonds are set for robust growth over the next decade.

#### What are REITs?

- Real Estate Investment Trusts or REITs are investment trusts (like mutual funds) that pool funds from investors to own and operate incomegenerating real estate properties.
- They pool funds from investors offering them a liquid way of entering the real estate market while helping them diversify their portfolio and earn regular income plus long-term capital appreciation.

#### What are InvITs?

- Infrastructure Investment Trusts (InvITs)
  are investment vehicles that pool funds from
  investors to own and operate infrastructure
  assets like highways, pipelines, and power plants.
- They offer regular income through dividends and long-term capital appreciation while helping monetize assets and attract private investment in public infrastructure.

#### **Municipal Bonds**

- Municipal Bonds are debt instruments issued by urban local bodies (ULBs) to finance infrastructure projects and civic amenities.
  - They are typically tax-free.
- These bonds help municipalities raise funds for public projects while offering fixed returns to investors.

Source: BS

#### **ATOMIC ENERGY COMMISSION (AEC)**

#### **In News**

 Centre reconstitutes Atomic Energy Commission (AEC).

#### **About Atomic Energy Commission**

- Genesis: Established in 1948 under the leadership of Dr. Homi J. Bhabha.
- Governing Body: The AEC is the governing body of the Department of Atomic Energy (DAE).
   The DAE was created in 1954 to implement the AEC's policies.
- **Key Functions:** Formulate policies for nuclear energy development.
  - Promote research and development in nuclear science.
  - Regulate nuclear activities.
  - Ensure safety and security of nuclear installations.
  - Collaborate internationally on nuclear energy.
- Leadership: The Prime Minister of India is the exofficio Chairman of the AEC.

Source: ET



#### **NAG MK 2 ANTI-TANK MISSILE**

#### Context

 India has successfully carried out field evaluation trials of indigenously-developed third-generation
 Anti-Tank Guided Missile Nag Mk-2, at Pokhran Field Range.

#### **About**

- Third-Generation Fire-and-Forget Technology: Enables precision targeting with minimal operator intervention post-launch.
- **Versatile Performance:** Capable of neutralising modern armoured vehicles equipped with explosive reactive armour (ERA).
- Platform Compatibility: Successfully integrated with Nag Missile Carrier (NAMICA), enhancing battlefield mobility and deployment flexibility.
- Range: Nag Mk-2 is estimated to have a range of 7 to 10 kilometres, an improvement over Nag Mark 1, which had a 4-kilometre range.

Source: PIB

#### **TERRACE TOURISM**

#### Context

 Old Ahmedabad celebrates two-day Uttarayan with flying kites boosting it's terrace tourism.

#### About

- **Terrace Tourism:** During the two days of the festival on 14th-15th January, intense kite fights take place on rented terraces.
  - **Terrace tourism** in Old Ahmedabad started some years ago, it has recently gained traction with not just people from Gujarat but even from Maharashtra and Gujarati NRIs.
- Kites are a big business in Gujarat. The state is the largest contributor to India's kite production, with 40%.
- Old Ahmedabad was given the UNESCO World Heritage City tag in 2017.

Source: IE

#### 7.93% DROP IN GHG EMISSIONS

#### Context

 India's 4th Biennial Update Report (BUR-4) highlighted a 7.93% reduction in GHG emissions in 2020 compared to 2019.

#### **About**

 India submits Biennial Update Reports (BURs) to the UNFCCC every two years to track progress.

- These reports update the national GHG inventories, detail mitigation actions, and highlight the support received, including efforts to reduce emissions.
- India's historical share of cumulative global GHG emissions is 4% annually, despite having around 17% of the world's population between 1850 and 2019.
- India's annual primary energy consumption per capita in 2019 was 28.7 gigajoules (GJ), considerably lower than both developed and developing countries.

## India's Nationally Determined Contribution (NDCs) Goals

- India seeks to achieve following targets by 2030:
  - Emission Reduction: India aims to reduce the emissions intensity of its GDP by 45% by 2030, compared to 2005 levels.
  - Renewable Energy: The country seeks to achieve 50% of its energy needs from nonfossil fuel sources by 2030, with a target of installing 500 GW of renewable energy capacity.
  - Carbon Sink: India plans to create an additional carbon sink of 2.5 to 3 billion tonnes of CO2 equivalent through afforestation and reforestation efforts.
  - India pledged to achieve net-zero emissions
     by 2070 at the 26th Conference of the Parties
     (COP 26) in 2021.

Source: PIB

#### **DIEGO GARCIA**

#### In News

Fishermen were detained near **Diego Garcia** island for crossing the maritime boundary and poaching.

#### **Diego Garcia**

- It is the largest and southernmost island of the Chagos Archipelago, located in the central Indian Ocean.
- It consists of a V-shaped cay.
- It was discovered by the Portuguese in the early 16th century.
- It is part of the British Indian Ocean Territory.

#### Do you know?

• The Chagos Archipelago is located approximately 2,200 km north-east of Mauritius. It covers an area of 60 km<sup>2</sup>.



- Major Atolls: The largest atolls in the archipelago are Diego Garcia (southeast), Peros Banhos, and Salomon Islands (both in the north).
- **Historical Ownership:** The Chagos Archipelago has been part of Mauritius since at least the 18th century when Mauritius was a French colony, known as IIe de France.
- **Transfer to Britain**: In 1810, following the cession of Ile de France from France to Britain, the Chagos Archipelago became part of the British-controlled Mauritius.
  - The Chagos Archipelago was separated from Mauritius in 1965, during British colonial rule.
- Britain and Mauritius made good progress in talks over the sovereignty of the Chagos Islands, including the U.S.-British military base.

Source:TH

